NETWORK-ASSEMBLAGES OF MEDIATED SEX: A POST HUMAN STUDY OF THE DIGITAL SEXUAL PRACTICES OF MEN WHO HAVE SEX WITH MEN

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Abstract

This thesis explores the translation of post human ontologies into a relational epistemological approach, taking the case study of men who have sex with men's (MSM's) digital sexual practices. It reports the findings from a connective ethnography, utilising a mixture of digital observation and insider-ethnographic accounts, to explore the inter-relationship between media as MSM engage in digital sexual practices. The main aim driving this study was to explore how social practices – in this case MSM's digital sexual practices – could be researched differently, and what a different perspective brings to the study of such practices, and to the practices themselves.

Though the literature exploring MSM's use of digital media to engage in sexual activities is diverse, to date it has been dominated by anthropocentric methodologies and analyses e.g. through a focus on human meaning making and representation. Taking the example of MSM's digital sexual practices therefore provided a body of literature that formed a counterpoint from which to explore the knowledge produced by different methodologies. The choice of post humanism as a way of enacting this difference – specifically the conceptual frameworks of assemblages (Deleuze and Guattari 2000, 2005) and networks (Latour 2005), or what I term "network-assemblages" – was therefore strategic. It countered the anthropocentricism dominating the field of MSM's digital sexuality research, and also afforded the materiality of these practices greater agency in the research process.

The contribution of this thesis is twofold. Firstly, it adds methodologically to the social sciences through the application of a post human ontology/epistemology to empirical research. By mapping linkages between venues as they form a network-assemblage, and by examining a single venue within this as a relational web of concepts, words, and things, it demonstrates different ways through which post human relational ontologies can be actualised in the study of phenomenon. Secondly this thesis contributes original insight into MSM's digital sexual practices themselves. Specifically however, it explores the influence of capitalism on emergent forms of digital sexual enunciations, taking the case study of MSM's commercial sex activities.

Furthermore, it highlights the different ways in which sexuality is actualised within digital materiality; as aesthetic values, as sets of systems, as flows of words and images, and finally as lived territories.

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Chapter 1 – Introduction

Networks, webs, information highways, and streams; Linked to each of these metaphors for digital media is a sense of movement and connectivity. Repeatedly it has been suggested by researchers in the field of digital media studies that social media platforms and forms of sociality are mutually constituted (boyd 2011; van den Boomen 2014; van Dijck 2013). The practice of using digital media has therefore come to mean the interplay between human connectedness and automated (non-human) connectivity (van Dijck 2013:12). It is the latter of these two factors, automated connectivity, that has taken on an increasing role in media practices as platforms co-evolve into an 'ecosystem of connective media' (van Dijck 2013:21). Media connections are produced through the actions of users as they network, and through the technical integration of media by site designers as corporations seek to colonise more of the marketplace of sociality (Buchanan 2007; Kreps 2011; Sharma 2013; van Dijck 2013).

Despite academic attention paid to connectivity within general digital media use (e.g. boyd 2011; Castells 2000; Terranova 2004; van Dijk 2012), this self-same connectivity has not fully translated into studies of sexuality-related uses of digital media – digital sexual practices. For example Daneback and Ross (2011), in their review of Internet sexuality research, highlight the numerous uses of the Internet for sexual purposes i.e. looking at pornography and seeking sexual partners. Together these practices were taken as forming a complex whole known as 'Internet sexuality' (Daneback and Ross 2011). Instead of addressing this complexity in terms of connectivity, Daneback and Ross (2011) treat Internet sexuality as a nebulous whole, whilst its constituent elements remain distinct and isolated practices. It is the deficit of studies of connectivity and complexity within the (MSM's) digital sexualities literature that forms the basis for my thesis. However in addressing this deficit, I have approached the digital sexual practices of MSM as material practices (van den Boomen et al. 2009); a position I discuss in detail in the following conceptual overview for my thesis.

1.1 Conceptual overview

This thesis is framed around the exploration of the digital materiality of men who have sex with men's (MSM's) sexual practices. Drawing on the work of others (van den Boomen et al. 2009; van Doorn 2011), materiality in my thesis is used to refer to the artefacts or traces of MSM's sexual practices as they engage with digital media. For example, profiles on websites, tweets on Twitter, and cybersex performances are taken to be materials for consideration in this study. Following Ahmed's (2006:46) queer phenomenological analysis of objects, profiles, tweets and other digital materials take the shape of their use; meaning they are the materialisation of aspects of MSM's sexualities. However key to my particular approach toward digital materiality is the view that rather than digital traces being immaterial virtual representations, they 'embody, assemble and reproduce gatherings that are *always material*' (van den Boomen et al. 2009:16, emphasis added). Drawing on Barad (2003, 2007), I therefore suggest that what constitutes the materiality of digital traces is their ability to have material consequences through the changes they generate in the world e.g. in men's bodies, or in websites.

In addition to hardware and software (e.g. mobile phones and websites), there are aspects of digital practices that 'defy immediate physical contact, yet which [are] incorporated in materiality rather than floating as a metaphysical substance in virtual space' (van den Boomen et al. 2009:9). In a later discussion of the ontological nature of digital media (Section 3.2), I link these immaterial aspects to notions of the virtual, being that which is not material in the physical sense but which is "real" in its effects. Examples of virtual elements of MSM's digital sexual practices could include gender, race, and sexuality. Together these conceptual (virtual) and material (physical) elements form what Barad (2003, 2007) refers to as material-discursivity. However for the purposes of this thesis I simply refer to such material-discursive agglomerations as "digital materiality". In summary, by reading digital traces and practices as material they become gatherings, assemblages, or networks of things, which include software, hardware, and discursive elements (van den Boomen et al. 2009). A relational approach in exploring the coming together of these material-discursive elements was therefore central to this study.

In order to apprehend the relationality implied by thinking digital sexual practices as being material-discursive, I have drawn on aspects of the post human conceptual project (see Hayles 1999 for an early example of post humanism in relation to cybernetics). I take post humanism to be the large body of work that, to varying degrees, requires people to 'think beyond their traditional humanist limitations' (Herbrechter 2013:2). Specifically I draw on and adapt those working with post humanism as a way of approaching ontology as relational, and with a focus on material processes (e.g. Barad 2003, 2007; Bennett 2010; Braidotti 2005, 2006a, 2013; DeLanda 2006; Deleuze and Guattari 2005; Haraway 1991; Latour 1996, 2005; Law 1994, 2008). However I recognise that within material-relational post human approaches there are still differences in focus. For example Haraway (1991) explores human-other relations, companion species and animal others; compared to Bennett (2010) who actively opens up the concept of agency to materiality and objects; and Barad (2003, 2007) whose 'agential realism' views the world as an unfolding set of ongoing phenomenon rather than discrete entities meeting. Accordingly, my appropriation of post humanism differs again to the literature, or in Braidotti's (2006b:203) words shows no 'faithful allegiance... only joyful acts of disobedience'; but still sits within a post human framework, for reasons I now outline.

Though my study may appear inclined towards a form of post human anti-humanism, by seemingly disavowing the human to focus on digital materials (Braidotti 2013), subjectivity, or to be more precise sexual subjectivity, forms part of the digital materiality of sexual practices. As Guattari (2013:1-2) notes, machines 'are nothing other than hyperdeveloped and hyperconcentrated forms of certain aspects of human subjectivity'. Ahmed (2006:46) expresses a similar sentiment, though from a queer phenomenological perspective, that objects are 'matter given some form or another where the form "intends" toward something'. Therefore, the digital materials examined in this thesis exist entirely because of sexual subjectivity, and are its materialised form. Furthermore, the digital materials considered here intended toward the generation of sexual arousal, with this being the way in which I was able to perceive them as a particular kind of material and not another (Ahmed 2006:46-47). As a result, my own 'orientation' to this digital materiality (Ahmed 2006), as a

man who has sex with men and who uses digital media, came to produce and was inseparable from the digital practices in this thesis.

Objects and digital materials, such as profiles on sex seeking websites, take particular forms in their relations with bodies. However, I would suggest that they also exist within their own digital material relations of software and hardware, and can therefore act (to a degree) independently of human bodies that generate and sustain them. As Guattari (2000:35) has stated, there are different kinds of existence outside of consciousness; therefore artefacts can assemble into other (nonhuman) subjectivities. Profiles on websites, or cybersex performances, for example, enter into capitalist circulations of information, and in doing so form entirely unforeseen and strange subjectivities. Therefore digital materials could be said to be nothing but human, whilst simultaneously being not human at all, and it is precisely this blurring of what counts as human and nonhuman, and the pre-personal nature of subjectivity this implies (Braidotti 2005, 2013), that I badge my study as post human.

My thesis brings together the post human perspectives of assemblages (Currier 2003; DeLanda 2006; Deleuze and Guattari 2005) and Actor Network Theory (Latour 1996, 2005; Law 2008). In common to both of these approaches is that they draw attention to the relational nature of phenomenon; hence why they were chosen as ways of apprehending digital materiality as earlier defined. However assemblages and Actor Networks each have their own unique qualities (Muller 2015), and these differences are used to different ends in this thesis (as I elaborate upon in Section 1.5). Drawing on these relational post human frameworks, the materiality of MSM's sexual practices can be viewed as complex arrangements or assemblages of material-discursive entities that include concepts (i.e. discourses), words, and things (i.e. images). However building on this premise, I suggest that other media are also linked together as aspects of digital materiality. By exploring the relationality of media I therefore address the lack of connectivity in studies of digital sexual practices I opened this thesis with.

It should be noted that this thesis is not an attempt to use post humanism to empirically explore the range of forces and intensities that contribute to sex, and therefore what counts as sexual and erotic. Such an endeavour would be another

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project in itself, drawing on different methods altogether – see Austin (2016) for example, where the author uses objects as affective tools for group discussions of sex with young people. Instead I adopt post human frameworks in order to re-think the materiality of practices and more importantly the practice of researching these practices. The definition of sexual practices I adopt throughout this study is therefore fairly conventional in the sense that I explore the uses of digital media that have the potential to produce arousal, either immediately or in the future e.g. sex-seeking advertisements or the production and consumption of user-generated pornography. However, my decision to limit the definition of sex was intentional. This thesis sought to make a methodological contribution to current studies of digital materiality by engaging in different research practices, rather than studying an entirely different form of sexuality altogether. Before providing further rationale for the specific way I have utilised post humanism, the following section will briefly outline the increasing mediatisation of MSM's sexuality, in order to highlight the importance of this study.

1.2 The increasing digital mediatisation of sexuality

The Internet and digital media are increasingly influencing sexual behaviour, both augmenting sexual practices and leading to the formation of new ones (Doring 2009; Durkin and Bryant 1995; Quinn and Forsyth 2005, 2013). Race (2015a:255-256) – drawing on Latour (2005) – refers to these Internet effects as the Internet acting as an intermediary and/or a mediator of sexuality. As an intermediary, the Internet and digital media act as conduits for reproducing other offline forms of sexual practice. Race however, prefers to consider the mediation of sexuality online, within the context of online hook-up apps at least. Rather than being vessels for the same meanings (Latour 2005:39), Race (2015a:256) proposes that digital media are material actants that modify MSM's sexual practices. As Latour (2005:39) states, 'Mediators transform, translate, distort, and modify the meaning of the elements they are supposed to carry'. In this thesis I consider both of these behaviours as occurring within MSM's digital sexual practices. For example, sex work moves online, and the Internet acts as an intermediary. However, the very technology itself, its digital materiality, changes the nature of sex work and thereby mediates it.

The effects of digital media on sexuality are most starkly observed in terms of sex and partner seeking. In the US, a survey of partner formation conducted by Rosenfeld and Thomas (2012) compared where and when heterosexual and same-sex couples met their current partner. The effect of the Internet on partner meeting was more pronounced in same-sex couples, with approaching 70 per cent having met online in 2010, compared to just 20 per cent for heterosexual couples (Rosenfeld and Thomas 2012:530). MSM specific studies have further illustrated the role of mediated means of sex-seeking as replacing other offline venues (Weatherburn et al. 2003), as well as its increasing role in finding first same-sex sexual partners (Bolding et al. 2007; McKie et al. 2015). Though little longitudinal analysis exists to suggest that the Internet is associated with a lowering of the age at which first sexual intercourse takes place, or its influence on the coming out process, qualitatively this has been implied (Doring 2010).

In addition to seeking romantic and sexual partners, sexuality on/of the Internet includes a host of activities that lead to sexual stimulation (e.g. the use of pornography or cybersex), and those that do not (e.g. seeking information about sexuality) (Daneback and Ross 2011:122). The different digital sexual activities/practices relevant to my study are examined in Chapter two, and several comprehensive reviews exist of research into digital sexual practices (e.g. Daneback and Ross 2011; Doring 2009, 2010; Griffin-Shelley 2003; Grov et al. 2014). These reviews highlight that the literature is divided roughly into two strands: research that explores patterns and reasons for engaging in digital sexual practices (e.g. Bolding et al. 2004, 2005, 2007; Bull et al. 2001; Daneback et al. 2013; Davis et al. 2006; Downing 2012; Elford et al. 2001; Garofalo et al. 2007; Grov et al. 2007; Liau et al. 2006; Parsons et al. 2004; Tikkanen and Ross 2000), and that which explores the materiality of digital sexual practices (e.g. Carballo-Diéguez and Bauermeister 2004; Carballo-Diéguez et al. 2006; Grov 2004; Light 2007; Light et al. 2008; Mowlabocus 2006, 2010a, 2010b; Nodin et al. 2011; Race 2010, 2015a, 2015b; Sowell and Phillips 2010; Ward 2015).

Despite these differing research strands, there are commonalities running through the literature that foreshadowed my study, and in Chapter two and three I highlight

these in greater detail. However in summary, the literature has a strong humanist focus on representation and meaning, and tends to limit itself to single venues (i.e. a single website) in relative isolation – except when human users recount their complex uses. This tendency to limit oneself to practices within a single digital venue has also been highlighted by Banks (2015:5); though within the general context of studies of the self-online.

As I opened this introduction with, connectivity and sociality are the prominent aesthetics of digital media research (see for example van Dijck 2013). Though the literature on MSM's digital sexuality has embraced changes in media by exploring new digital sexual venues (Grov et al. 2014), a sustained exploration of the complexity and connectivity of such media remains lacking. In the current study, I adopted post humanism to address this lack, and as a way of reconfiguring ontology and epistemology in charting a way out of prior humanist analyses. Before going into detail regarding the choice of post humanism, the following section provides a more detailed justification for attempting an alternative reading of MSM's digital sexual practices – as a connective complexity.

1.3 Rationale for studying MSM's digital sexual practices differently

In their paper on the power of research methods, Law and Urry (2004:395) write that theories and methods are productive of realities. The process of research becomes a choice over which realities we try to enact and create (Law and Urry 2004:396). The generative ability of methods to create different realities is therefore important to consider when conducting research (Law and Urry 2004:397), as research interferes with the patterning of the physical and social world (Law and Urry 2004:402). Law and Urry (2004:397) call for a shift from thinking of research in terms of its mental spaces and its epistemology, to thinking of research in terms of ontology; and from singular worlds to worlds in their plurality. It is this plurality that forms the basis for Law's (2004:2) solo writing on researching ephemeral and complex phenomena, in which he argued that clear descriptions make a mess of complexity. Specifically, Law (2004:2) was concerned with how to research phenomenon that are 'vague, diffuse

or unspecific, slippery, emotional, ephemeral, elusive or indistinct, changes like a kaleidoscope, or doesn't really have much of a pattern at all', without making more of a mess of them. MSM's digital sexual practices are examples of diffuse and elusive phenomenon. This elusiveness originates from several factors, not least related to the furtive nature of queer sexual expressions in public (Berlant and Warner 1998).

Though digital media have been shown to open up channels for the commodification of sexualities, only certain (hetero)sexualities are mediatised for general consumption. For example Ringrose (2011) has explored how young people's digital sexual identities intersect with consumer culture and the sale of hetero-normative goods. However homosexual desire largely falls outside of mainstream media, particularly in its raw form when it relates to same-sex sex acts. Segmentations in the market relegate queer acts and expressions to "gay spaces" (Sender 2003). The mediated nature of MSM's sexuality online adds to its ephemerality and inherent fleetingness. For example men enrol different media types in order to generate sexual arousal, making these practices inherently dispersed. Furthermore, though a web browser can record a person's Internet history, this can be erased, so too can profiles – or they can simply be forgotten and fall out of use. The main elusive element that this study sought to address was not to be found in some aspect of the digital practices of MSM themselves, but in the lack of 'messy methods' used to research them (Law 2004). I would note however that the methods adopted in this study were far from messy, but drew on complexity in order to momentarily arrest mess for the purposes of social research.

Methods in the textbook sense attempt to achieve clarity and precision (Law 2004:145). They therefore result in what Law (2004:145) calls 'conventionally acceptable statements, representations, or depictions of the realities for which they stand'. This is the dominant mode of researching the digital sexuality of MSM, for example through the health and risk model of sexuality which much of the literature feeds into (Grov et al. 2014). Deleuze and Guattari (2000, 2005) offer an alternative view that creates a new model of interpretation, rather than doing away with interpretation altogether (Buchanan 2013). As Buchanan (2013:15) highlights, the

method of Deleuze and Guattari is no less reductive than that deployed by the dominant mode, however it is reductive in a different way.

The reduction present in Deleuze and Guattari's (2000, 2005) oeuvre is underpinned by two key moves. Firstly, they focus on 'a population of objects rather than a single object', and secondly they privilege the functional aspects of this population (Buchanan 2013:16). The interpretations of events enabled by an adherence to DeleuzoGuattarian theory is therefore a move toward understanding complexity and movement (populations rather than cases), whilst focusing on what events and populations do rather than their inherent meaning. In relation to the study of practices, Buchanan (2013:16) summarises that Deleuze and Guattari view utterances as the assemblage of material-semiotic elements to perform a function. It is this re-evaluation of utterances as complex arrangements of elements that makes Deleuze and Guattari's (2000, 2005) theoretical works particularly suited to studying the materiality of MSM's digital sexual practices differently. Having made a case for difference, in the following section I elaborate upon the choice of post humanism in this study.

1.4 Exploring digital sexual practices through post humanism

Academic understandings of what it means to be human have shifted, from a Cartesian split between the biological and cultural, to human existence as diffuse and affective (Blackman 2008). The figure of the cyborg looms large in our cultural imagination. For example Haraway (1991:150) has said that 'we are cyborgs' and that 'The cyborg is our ontology', which is suggestive of hybridity and a blurring of boundaries. Furthermore, implied by Haraway and others working through post humanism is the belief that rather than the cyborg being a new state of being brought about by technology, the boundaries separating body/machine/nature/culture have always already been porous (Brians 2011:127). Central to this porosity is the concept of affect, being the capacity to generate change, to affect and be affected (Blackman and Venn 2010) – this being the definition of affect adopted throughout my study. Thinking of bodies and things as always in process, 'affect is invoked to gesture

towards something that perhaps escapes or remains in excess of the practices of the 'speaking subject'' (Blackman and Venn 2010:9).

The plurality of the body and subject has lead Braidotti (2013) to ultimately question the status of the human in the humanities. With the shifts in our academic and cultural understandings of ourselves as less unitary, more composed of elements (Brians 2011:139) – and therefore always already post human – Braidotti (2013:171-172) proposes that:

> Humanities in the posthuman era of anthropocene should not stick to the Human – let alone 'Man' – as its proper object of study… [but] embrace the multiple opportunities offered by the posthuman condition. The Humanities can set their own objects of enquiry, free from the traditional or institutional assignment to the human and its humanistic derivatives

It is within this spirit of setting the object of enquiry that I sought to conduct my study differently, in order to explore the different knowledge this produced of the materiality of MSM's digital sexual practices.

The main strand of post humanism adopted in this thesis drew primarily on Deleuze and Guattari (2000, 2005)[1]. In Chapter three, their ontology is outlined and situated within their wider conceptual apparatus. Braidotti (2005:para.16) stresses that Deleuze and Guattari's work constitutes a sustained attack on identity. This is because their ontology shifts from the subject as having inherent properties, for example the self or identity, to the subject and body as a cluster of intensive forces – as assemblages of human and non-human elements (Braidotti 2005:para.16).

Identity has been fundamental to the digital researchers' arsenal of concepts, therefore post human ontologies problematise these identity-based studies (see for example Banks 2015). They remind us that 'our bodies and our identities are never merely given, but must be constituted out of a range of incommensurable, heterogeneous forces' (Brians 2011:139). Post humanism shifts away from assessing body-technology interactions in terms of what they are, for example the use of digital media to find partners as inherently risky behaviour, to thinking of them as ever

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[1] DeleuzoGuattarian is sometimes used in this thesis to refer to the joint works of Deleuze and Guattari (2000, 2005).

changing assemblages. Therefore, in blurring the boundaries of phenomena, post human frameworks, and particularly assemblages, call for researchers to value what composes digital sexual practices, and what they may enable or block.

The adoption of post human ontologies in this thesis meant that I engaged in ethico-political research practices (Diprose 2009; Ringrose 2015). Such ethico-political practices are ethical in the sense that they are 'receptive to the multiplicity of becomings encountered in our entanglements' (Diprose 2009:15); meaning that they are open to different possible combinations of arranging the social. However these same practices are also political in the sense that they challenge dominant aggregations and modes of thought (Ringrose 2015). It was this political aspect that formed an important draw to using post human frameworks in order to problematise humanist modes of studying MSM's digital sexual practices, particularly their bounded nature.

Post humanism: Beyond boundaries

In the first section of Chapter three I explore the different theoretical stances toward the Internet, noting the profusion of binarisms such as the real and the virtual. Binarisms operate through contradistinction, based on the essential properties of entities (Malatino 2014:139). An entity can be classified because it has qualities and properties that distinguish it from something else. Binarisms therefore operate in relation to an Other, being that which an entity is not (Malatino 2014:139). For example, the Internet is seen as virtual – meaning not material – because it does not have material properties. However, this use of virtuality relies on its contradistinction to materiality, which is taken to be a tangible substance (van Doorn 2011). As indicated above, Deleuze and Guattari's (2005) ontology moves away from considering the inherent qualities of things. Any possible contradistinction between the material and the virtual therefore becomes blurred. In consequence Brians (2011:136), in his writing on embodiment online through a DeleuzoGuattarian lens, suggests that the ''virtual' realm of cyberspace is always already formed by and implicated with material forces'. Digital sexual practices therefore have a materiality outside of their hardware (i.e. computers and mobile phones), and it is this

materiality that I sought to explore in this study – see also van den Boomen et al. (2009) on digital materiality.

As has already been indicated, the materiality of user-generated content has largely been explored in the digital sexuality literature in terms of representation and meaning (see also Chapter two). However numerous authors, all drawing on post human frameworks, have suggested that content on social networking sites is not simply a representation of an offline person (e.g. Banks 2015; Brians 2011; Kreps 2010; Ringrose 2011; Sharma 2013). The digital is an entirely different 'mixed-reality' (Brians 2011), 'simulacrum' (Kreps 2010), 'network' (Banks 2015), or 'assemblage' (Ringrose 2011; Sharma 2013), combining the virtual and the real. In support of my reasoning for adopting post humanism in this thesis, Sharma (2013:47) argues that attending to digital materiality calls for alternative approaches and methods outside of those typically drawing on the social construction of phenomenon – and which rely on representation and meaning (see also Coleman 2013a for a critique of the representational reading of images). My study therefore explored the mixed-reality or assemblage of MSM's digital sexual practices through a 'non-representational' (Anderson and Harrison 2010) or a more-than-representational approach[2]. This meant engaging with affect, but also with materiality as assemblages of language and things (Parisi 2004:71-72).

By moving outside of representation and the inherent qualities of entities, post human ontologies take us into a 'post-qualitative' era (Lather 2013; Lather and St. Pierre 2013). Lather (2013) and St. Pierre (2014) have both charted the progressive shift in qualitative methods, which has seen the subjects/objects of study and the methods used becoming progressively destabilised, up until the current paradigm of post humanism. Post humanism is particularly problematic for qualitative research which has its roots in the humanist exploration of people's experiences and meaning making (Lather 2013:634-635). However researching post-qualitatively, or non-representationally, calls for a methodologically experimental mentality (Lather 2013; MacLure 2013a; St. Pierre 2014; Vannini 2015a), and as I have suggested elsewhere

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[2] More-than-representational is used in place of non-representational to imply an analysis that was in excess of representation, but still inclusive of it, instead of just being that which is not represented.

(Thomas 2016), this meant experimenting with all methods, including quantitative and mixed analyses. An experimental mentality therefore runs through this thesis, both in terms of its methods and analyses. In the following section I briefly outline this experimental methodology, which is discussed in detail in Chapter four.

1.5 Overview of study design

The present study took the form of a digital (connective) ethnography (Hine 2000, 2008) exploring the materiality of MSM's digital sexual practices. Hine (2000:64) has argued that the increasing mediation of interactions means that sticking to one site, or several, is no longer necessary as ethnography becomes mobile. Rather than limit myself to the study of a single site or practice, I started from three digital sexual venues – two of which were venues for sex-seeking, reflecting web-based (Craigslist[3]) and mobile venues (Grindr[4]), whilst the third venue was a paid cybersex website (Cam4[5]). Each of these sites enables users to generate different kinds of content, from the mainly textual Craigslist to the multimodality of paid cybersex on Cam4. These spaces also serve different functions within MSM's sexualities. For example sex-seeking differs in its arrangement of bodies and media when compared to cybersex, where there is no interaction beyond the materiality of the interface. From these initial venues, observations spread to include other digital media, following the links made by men as they engaged in generating sexual capacities in theirs and others' bodies. However, as part of a wider digital ethnography, there was an element of 'deep hanging out' (Geertz 1998) in digital spaces such as forums and blogs, in order to gain an understanding of MSM's wider usage of different media.

In addition to a DeleuzoGuattarian ontology, I also drew on elements of Actor Network Theory (ANT) to inform my research practice (Law 1994; Latour 2005). The main tenet of ANT is to follow the human and non-human actors (Latour 2005). Abiding by this allowed for the operationalisation of complexity in the exploration of, (1) the interrelationship between media and mediated sexual practices, and (2) the

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[3] https://london.craigslist.co.uk/
[4] http://www.grindr.com/
[5] https://www.cam4.com/

complexity of digital sexual phenomenon as a set of interrelated human and non-human elements i.e. images, discourses, words, rules. Muller (2015:30) situates ANT as 'an empirical sister-in-arms of the more philosophical assemblage thinking', later indicating that compared to assemblages, ANT 'offers a more concrete conceptual and methodological apparatus that can be applied to empirical work' (Muller 2015:31). Law (2008:144-146), one of the original proponents of ANT, has also suggested that the method reflects the empirical version of DeleuzoGuattarian ontology. However Buchanan (2015) is critical of the growing homology between ANT and Deleuzian theory. For him, Deleuze and Guattari are about more than complexity as a gathering of things, which ANT implies (Buchanan 2015:385). In recognition of this distinction between ANT and assemblages, I used the framework of "network-assemblages" throughout my study as a way of describing the complexity of MSM's digital sexual practices that drew on both frameworks, whilst acknowledging their distinctiveness. Through this joint framework I have attempted to reconcile the two perspectives into a methodological approach for the empirical study of social phenomenon.

Though network-assemblages formed the theoretical underpinning for my study, engagement with the field took the form of unobtrusive observation (Hine 2011) in digital sexual spaces. Despite being an ethically contentious method of conduct, observation is a legitimate form of engaging with digital spaces (Markham 2013). During this period of observation, data were gathered through various means. For example performances on cybersex venues were watched and screen captures made; advertisements for sex-seeking were read, downloaded and analysed; and screen captures were taken of both mobile and web-based sexual venues. On occasion insider-ethnographic accounts of my own engagement in digital sexual practices, as a man who has sex with men, were used to supplement observational materials. These sources were drawn on and analysed using different strategies. In the following map of my thesis I explore the different analyses conducted, and how each empirical chapter addressed different laminations or layers (Markham and Lindgren 2014:17) in the post human study of the materiality of MSM's digital sexual practices.

1.6 Map of thesis

In **Chapter two** I outline the topic of interest, being MSM's digital sexual practices. Digital sexual practices were defined for the purposes of this study as being the media and techno-practices of MSM as they engage in sexuality related activities. Such practices included the exchange of sexual images and texts, looking for sexual partners using mobile applications, and the creation of profiles on MSM's socio-sexual networking websites. Rather than highlighting gaps in areas of knowledge about particular groups of MSM, such as the lack of knowledge on rural MSM's digital sexual practices (Kennedy 2010), the purpose of Chapter two is to highlight the relative consistency in methodologies with which digital sexual practices have been explored. The review chapter therefore positions my study as a counter-space to dominant modes of thought that circulate within society and which come to effect research practice. The overarching research question for this study formed from the remnants of this methodological literature review, being: how can the materiality of MSM's digital sexual practices be researched differently? And what does this different perspective bring to the study of these practices, and the practices themselves?

As my study was heavily influenced by the social theory of Deleuze and Guattari (2000, 2005), **Chapter three** gives an overview of their key conceptual apparatus. Firstly however, it introduces the main theoretical debates relating to the online/offline divide, in order to situate the current study within the field of Internet studies. DeleuzoGuattarian theory is then introduced, with the main concepts explored being: assemblages, de- and re-territorialisation, desire, the molar/molecular distinction, and DeleuzoGuattarian approaches to science. Moving through each of these concepts, I build up Deleuze and Guattari's ontology, before linking this into an epistemological position. Chapter three then proceeds to pick up the literature again, using the apparatus of Deleuze and Guattari as a way of reinterpreting the dominant modes of researching MSM's digital sexual practices – as symptomatic of humanist trends within contemporary thought. Here the ontology

of post humanism is translated[6] into a different or "minor" epistemology – an action encapsulated in the title for the chapter 'onto→epistemology'.

Barad (2003:829; 2007:185) uses a similar term 'onto-epistem-ology', to refer to the blending of ontology and epistemology, as 'the study of practices of knowing in being'. In Barad's usage, such an onto-epistemology places greater emphasis on the generation of knowledge and the inseparability of such knowledge from the apparatuses we use to apprehend the world. My usage acknowledges this material construction of knowledge and the entanglement of ontology and epistemology. However, where I invoke and use the term onto→epistemology, I focus on a movement from post human ontology to an epistemological position, which this thesis sought to undertake – and why I continue to use the direction arrow rather than a hyphen as Barad does. I conclude Chapter three by exploring a different way of doing social research informed by this onto→epistemological drift, based around the process of mapping, using this to speak back to the literature reviewed in Chapter two.

As a process of following flows, Deleuzian mapping shifts research away from considering single digital sexual venues in isolation, instead exploring their interconnection. It therefore draws on what Markham and Lindgren (2014) term a networked sensibility. This sensibility attempts to render visible the relationship between entities in the emergence of phenomenon. Methodologically, such an approach calls for movement in the generation of data and its analysis (Markham and Lindgren 2014), for example through the adaptation of mobile or multi-sited ethnographic methods (Marcus 1995). Primarily however, a network sensibility draws on visual renderings as a way of analysing data and the relationships between elements that are generative of phenomena.

Discussed in Chapter three is the network sensibilities open connection to events and data, being attentive to data 'glowing' (MacLure 2013b). This glow occurred in instances where the digital materiality of events and theory superposed, like two

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[6] Translate here refers to the displacement or drift of ontology into epistemology, and the creation of new linkages, rather than the direct shift of something from one medium or language into another (Latour 1994:32).

waves meeting and overlapping to form one of greater amplitude than either on their own. As an example of such a glow, observations of digital commercial sex overlapped and extended my readings around Deleuze and Guattari's (2000, 2005) work on capitalism, leading to the <u>additional research question of whether and how does capitalism foster certain forms of sexual enunciation on digital media?</u> Furthermore, in the general engagement with assemblage ontology, sexuality becomes a complex whole of different elements – a sexuality assemblage (Fox and Alldred 2013). In the context of this study, thinking of sexuality as an assemblage brought new light to MSM's digital sexual practices, and lead to the <u>question of what forms does sexuality take as part of the materiality of these practices?</u>

Chapter four outlines how mapping and a network sensibility were translated into research practice. It therefore sets the scope of the digital connective ethnography underpinning my study; specifically how materials were generated, analysed, and finally presented. In this chapter I also touch upon the ethical approach adopted, given the contentious nature of studying sexual enunciations and sex acts. The concept of research as an assemblage (Fox and Alldred 2015a) is used to structure the discussion throughout Chapter four, thereby allowing for an account of how various elements of my study – the field, data collection, analysis, and ethics – were linked to undertake research within a minor mode. Each of the four empirical chapters that lead from the methodological discussion, map out different aspects of MSM's digital sexual practices. In Chapters five to eight I address, in turn, the research questions introduced over the previous chapters, summarised here as:

(1) <u>How can the materiality of MSM's digital sexual practices be researched through post humanism and a minor mode? And what does this different perspective bring to the study of these practices, and the practices themselves?</u> (Chapter five and six)

(2) <u>Does capitalism and commodification dam up, redirect, or indeed foster certain forms of sexual enunciation? And if so how?</u> (Chapter seven)

(3) <u>What forms does sexuality take as part of the materiality of MSM's digital sexual practices?</u> (Chapter eight)

I begin each empirical chapter with a theoretical refrain. A refrain, in the works of Deleuze and Guattari, refers to the carving out of a region through the act of repetition and rhythm; they use the example of birdsong that becomes an organising

principle or theme that fills and demarcates a territory (Bonta and Protevi 2006:133). Used here, the theoretical refrains develop (or repeat) ideas that are introduced in brief in Chapter three, refreshing them in the reader's mind. These "theoretical refrains" therefore generate particular analytical territories, which are then opened up to include materials contained within each empirical chapter.

Though the substantive chapters each progress my ideas and develop from the methodological to the empirical contributions of this thesis, they have been written relatively free standing. As indicated above, each empirical chapter starts anew, and adopts a different refrain. This style of writing was intentional, taking inspiration from Deleuze and Guattari (2005), where each chapter is its own plateau or conceptual development. In writing my own plateaus, I was attempting to write a thesis, itself the paragon of aggregative (mainstream) scientific practices, but in a minor or different mode. Such a minor style of presentation therefore fit within my overarching aim, to enact difference in research practice. However there are strands that run throughout my discussion, which I have drawn out as a set of final thoughts in my conclusion.

The first of the maps, produced in **Chapter five,** draws on a network sensibility as a way of conducting a network analysis of the interrelationship between different sexual venues. In this chapter I follow the links left by men as they engaged in digital sexual practices, for example following links from sex-seeking profiles to social networking sites. The interrelationships between media were mapped to produce a network-assemblage diagram of digital sexual practices. In producing this map, I challenge dominant modes of research that view media and practices in isolation. The network sensibility was further deployed to explore a single digital venue within this network-assemblage as a network-assemblage in itself. **Chapter six** explores this network within a network, by focusing on sex-seeking advertisements placed by MSM on Craigslist. Here I focus on the interrelationship between the material-semiotic elements of Craigslist advertisements, including text and images – or concepts, words and things. At the beginning of Chapter six I summarise the literature that has analysed MSM's sex-seeking advertisements on Craigslist, in order to juxtapose the networked reading of advertisements. Chapters five and six provide

the methodological contribution of this thesis, illustrating the knowledge derived from the translation of post human ontologies into epistemology and research practice.

Network-assemblages can be applied to any area of study, as will be highlighted in the concluding section of this thesis (Chapter nine). However the conceptual apparatus of Deleuze and Guattari (2000, 2005), and therefore any use of assemblages, should be situated within their broader understandings of capitalism (Buchanan 2015). Within DeleuzoGuattarian ontology, capitalism is a schizophrenic force that pulls in two directions: toward individualism, and a counterforce toward aggregation through consumerism (Braidotti 2006a:3). In order to explore the effects of capitalism on MSM's digital sexual practices, **Chapter seven** takes the case study of digital commercial sex. Sex work was observed in various forms during the course of this study. Chapter seven therefore maps some of these different commercial sex assemblages, and in doing so I highlight the ways in which capitalism and commodification assemble (with) technology in the generation of different sexual enunciations.

The final map, presented in **Chapter eight,** traces the multiple materialisations of sexuality within the digital sexual practices of MSM. I use Guattari's (2006, 2013) framework for analysing phenomenon, split across four domains, as a way of complexifying digital sexuality: as material flow, as the lived experience of the embodied self, as a set of aesthetics, and as systems of rules. My discussion in Chapter eight moves through each of these four domains, drawing on examples from across this study, in order to construct a framework for MSM's digital sexual practices. The four-domain-framework is then used to explore several events or examples of digital sexual practices, including: compulsive use of sex-seeking venues, a paid cybersex performance depicting drug use, and finally an example of machine algorithms producing sexuality. These examples are used in order to add a post human slant to the extant literature. If sexuality is indeed everywhere, as Deleuze and Guattari (2000:293) have suggested it is, this chapter addresses the question of what material forms sexuality takes in the digital sexual practices of MSM.

Together the four empirical chapters form elements within a larger cartography of MSM's digital sexual practices, or what Deleuze and Guattari (2000, 2005) refer to as schizoanalysis. Such a schizoanalysis seeks to break down dominant modes of thought and practice, whilst generating new ways of relating in the world (Ringrose 2015) – see Chapter three for a more detailed description of schizoanalysis. In **Chapter nine** I draw these maps together in order to highlight the diffuse knowledge that is produced through a minor mode, and some of the theoretical contributions to the field of MSM's digital sexuality research leading from my study. My discussion then comes back to the ethico-political dimension of assemblages by conducting a schizoanalysis of this study, in order to summarise the transformations and affects that were produced. In doing so I assess the contribution that alternative onto→epistemologies can make to the empirical study of MSM's digital sexual practices. I highlight some tentative implications of using a network sensibility for both policy and those conducting empirical social science research. Finally, I conclude by exploring some of the limitations of the current study and ways forward. Having outlined the structure of this thesis, the following chapter explores the literature on MSM's digital sexual practices.

Chapter 2 – The digital sexuality of MSM, a primer

In this chapter I outline the topic under study, being MSM's digital sexual practices, and in doing so provide some situational context for the remainder of this thesis. Digital sexual practices denote technologically mediated forms of sexuality related activity (Cooper and Griffin-Shelley 2002:3) – throughout this study, digital sexual practices, digital sexual acts, and digital sexuality are used interchangeably. Dowsett (2015), in a review of digital sexuality research, suggests that there is an enduring fascination with technologically mediated sex. Reference to digital sexuality immediately conjures up images of cybersex and other trans-human forms of sexuality. However with the increasing digitisation of previously analogue media such as telephones, the term digital can therefore be used as an umbrella term for a range of media, mediated activities, and practices.

Examples of mediated digital sexual activities from the literature include the creation and/or consumption of digital content on the Internet (Allman et al. 2012), the use of mobile phone applications for sex-seeking (Beymer et al. 2014), the exchange of telephone numbers as a prelude to sexual encounters (Brown et al. 2005), or the sending of sexual images via text, also known as sexting (Bauermeister et al. 2014). Though far from the techno-romanticism of robotic sex and tele-dildonics (Rheingold 1991), digital practices are part of the increasing publicness and connectivity of everyday life (van Dijck 2013), something even sexuality has not escaped – as my study sought to illustrate. Gay men and MSM may be, to an extent, at the forefront of these changes in digital sexuality, partly due to their stigmatisation as deviants, thereby driving activities underground and online (Dowsett 1996, 2015; Quinn and Forsyth 2005, 2013; Weinrich 1997).

The first section of this chapter is devoted to defining the elusive population of MSM, whom Coxon (1996:18) describes as an iceberg, with a large majority of men composing the hidden mass underneath more visible gay identifying individuals. In the introduction to this thesis I indicated that the Internet was increasingly becoming a place for partner seeking. In order to situate these socio-sexual changes, the discussion in this chapter moves from defining MSM to exploring theories relating to

Internet sexualities. From discussing the generalities of Internet sexuality, I then explore the literature on MSM's digital sexualities in order to, (1) highlight the broad range of digital sexual practices MSM engage in, and (2) pick out commonalities running through the study of these practices. The majority of cases are drawn from studies of web-based digital sexuality rather than more mobile practices, however this latter group is a growing field of study – see Section 2.5. Furthermore, as the main aim of this study was to provide a methodological contribution to research into MSM's digital sexual practices, I have focused predominantly on the methods applied throughout the extant literature. I conclude this chapter by suggesting that to date, the study of MSM's digital sexuality has been particularly homogenous in terms of methods and focus. Before I provide a definition of MSM, some further rationalisation of the choice of topic is needed.

MSM's digital sexual practices have been the focus of a sustained critical examination for several decades – see Grov et al. (2014) for a review of the literature. As I go on to discuss in this chapter, the literature primarily frames MSM's digital sexuality within particularly anthropocentric understandings of the body. This anthropocentrism views bodies and technologies as distinct unitary things, with technology having a causal effect on the body's sexual capacities. Research therefore focuses largely on single venues, and explores the causal *effects* of technologies through interviews and surveys with MSM, designed to explore the uses and gratifications from such media. Coleman (2008a) identifies a similar negative causal effect attributed to the encountering of (visual) media and bodies in feminist empirical research accounts. These "media effects" start from a similar *a priori* distinction found in the digital sexuality literature, between subjects and objects (Coleman 2008a:164).

In approaching the study of MSM's digital sexual practices from this limited number of starting points, there are also a limited number of conclusions drawn. Banks (2015:5) has noted this same reduction of complexity brought about by focusing on isolated venues when exploring the self-online. As a man who has sex with men who engages with digital media I was particularly piqued by the effects (and affects) of such reductions in pathologising Internet sexuality – see Section 2.2. I therefore

chose to study MSM's digital practices in order to create a counter-narrative to an already established field of study that is growing every year, but remains relatively homogenous in terms of its theoretical and methodological perspectives. The following section explores the decision to focus on MSM rather than the practices of gay identified men, which the majority of the literature does.

2.1 Defining men online, and MSM: from identity to practice.

The rationale for focusing on the practices of MSM was that some men may not align themselves with queer sexual identities, for a variety of reasons, and engage in same-sex activities either on or mediated by digital media. Drawing on the iceberg metaphor of Coxon (1996:18), the use of sexual identity to define my population of interest, as opposed to sexual practice, would have therefore omitted a significant portion of male same-sex sexualities "underneath" the surface of placid sexual identification. This is because the realities of sex are more messy and complex than the use of binary or ternary classifications of hetero/homo/bi-sexuality can account for (Drucker 2010:1119). In Appendix A I further illustrate the complexities of attempting to enumerate the MSM population, with the conclusion that the hard to grasp nature of MSM sexuality makes this task difficult, if not impossible.

Despite the nuances of MSM's engagement in digital sexual practices, throughout the literature there is reference to gay culture and spaces (see Mowlabocus 2010a for example). This use of identities as a way of classifying materials replicates certain binary logics – in Chapter three I relate this to a particular mode of contemporary thought. However as Fuss (1991:1) highlights, the oppositions implied in sexual binarisms cannot be easily dispensed with, but only worked on and worked over. Though sexuality is more than identities within a post human perspective (Fox and Alldred 2013), an attention economy (Goldhaber 1997) based on classifications was evident during my study through their recurrence within MSM's digital sexual venues.

Digital media users are able to generate their own classifications for content. "Tags" can be created that thereby render content searchable to other users (see Barton

2015 for a discourse analysis of social network tagging practices). Digital sexual spaces are equally as permeated by these different forms of classification (see Mazières et al. 2014 for a study of tagging practices associated with user generated pornography). As an example from my study, on entering XTube – a space for posting user-generated pornographic content – the user can indicate whether they are a man and are interested in other men. Indicating one's sex and sexual partner preferences (i.e. male and interested in men), thereby configures any future searches of XTube to produce only MSM materials – or at least those materials that would be of most interest to a man interested in other men. Furthermore, users of XTube can tag videos, and a search facility allows viewers to search for content they are interested in. These classifications were an important element in accessing materials during this study and meant that my observations could be limited to those venues and practices that were classified as being generated by male users. Using a broad definition for the population of interest, such as MSM, enabled me to observe a range of classification systems, without foreclosing avenues of interest or imposing gay identities over queer men's sexual practices. Where sexuality was not used to classify practices, such as on cybersex performance sites where the only classification was by the sex of the performer, all materials under the Male category were included for study, given that a large proportion of the audience were themselves male.

The use of MSM to define materials of interest, though it has strong links to the field of public health (Boellstorff 2011), reflects a sense of sexual fluidity that this study sought to pursue, and which was found in my engagements in the field. For example where self-identifying straight men performed on cybersex sites for a primarily male audience, although direct sex acts were not involved, the performers still tapped into and fostered same-sex sexuality. MSM, as a way of defining my population of interest, therefore focused on sexual acts and practices. In doing so it captured the ebb and flow of sexual affects around intensive (erotic) moments, something that the adoption of fixed sexual identities forecloses. Though sexual identities emerged out of my analysis, to take identities as a starting point would have been antithetical to a DeleuzoGuattarian framework, which attempts 'to demassify monolithic categories' (Currier 2003:335). Starting from fluidity therefore fit with findings from

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Deleuzian accounts of the self, for example those that draw on the process of rhizomatic narrative selfhood (Sermijn et al. 2008). Here the self-as-story is constantly retold (i.e. is rhizomatic), however coherent (sexual) identities or stories emerge from a 'human urge for structure' (Sermijn et al. 2008:641). Having outlined and justified my population of interest, in the following section I address the different theories of Internet sexuality.

2.2 Theories of Internet sexuality: Internet effects

The influence of the Internet and digital media on sexuality has been ascribed to three central components, known as the triple-A engine of access, affordability, and anonymity (Cooper and Griffin-Shelley 2002). Access relates to the convenience of using the Internet to engage in sexuality related activities, affordability to the low cost provision of sexual goods and services, and anonymity to its affordances when concealing identities (Cooper and Griffin-Shelley 2002:5-6). As an example, these affordances are reflected in Schrimshaw et al.'s (2013) study of non-disclosing MSM's sexual venue preferences. The Internet was found to offer the men an efficient, convenient, and easily concealable venue to meet other men (Schrimshaw et al. 2013:133). For MSM in particular, the Internet offers further affordances, these being its acceptability as a means to meet men within gay culture, and in allowing men to approximate a homosexual identity without having to take one on (Ross and Kauth 2002:53).

Though these affordances provide a useful framework for understanding Internet sexuality, both Cooper and Griffin-Shelley (2002) and Ross and Kauth (2002) operationalise them in negative terms, relating the triple-A engine to the compression of sexuality and sexual compulsivity. These negative associations between the Internet and sexuality appear to be part of a long-standing dystopic trend when studying the topic, something that Doring (2009) concludes from a literature review of research on the Internet's effects on sexuality. The main negative outcome attributed to use of the Internet is as a vector in HIV and sexual disease transmission. The meta-analysis of Liau et al. (2006) epitomises these negative connotations, with the authors comparing studies that measured the prevalence of

"risky" sexual behaviours amongst MSM who use the Internet to seek sexual partners. A second negative aspect attributed to the Internet has been the reduction of sexual contacts to consumerism, treating others as objects for sexual consumption (Ross 2005:347). However Ross (2005:347) suggests that this view should be tempered by the fact that sexual consumerism has been an aspect of gay subculture in urban areas since before the Internet.

When the Internet is not being damned as a risk environment there is the strong utopic counter reaction extolling its virtues as a 'virtual playground' (Hine 2000:7). Here the Internet has been viewed as a means to type without doing and to do without being (Ross 2005:344), this being synonymous with Ross and Kauth's (2002) approximation of homosexual identity. Men on the Internet can engage in sexual activities with other men and not go through with any sex acts In-Real-Life. Furthermore, if men do engage in sex acts whilst online, they do not have to commit to a gay or bisexual identity. This was found in Ross et al.'s (2005) study of MSM's Internet chat, where one in ten heterosexually identified men had had online sex with another man. Both utopian and dystopian discourses play across the politics of digital sexuality research. However it was my intention in this study to break away from these binarisms, and the ethically limiting assessments of good and bad digital media use they generate.

In his review of social theory and sexuality in relation to the Internet, Ross (2005) highlights ways that the Internet effects sexuality, rather than its affordances. Influences were identified on two levels. Firstly it was suggested that the Internet has made sexual interactions more efficient (Ross 2005:350), this being an aspect already highlighted in the triple-A engine. These effects are synonymous with what was earlier referred to as intermediary affects (Latour 2005:39). However to say that sexuality on the Internet is the same as offline sexuality in a new form is only partly true (Daneback and Ross 2011:123). Ross (2005:350) indicates that on a more important level, the Internet makes possible new things that were not possible previously. Similarly Quinn and Forsyth (2005:204) conclude that 'Technology changes social interaction – sexuality included'. Furthermore, Daneback and Ross (2011) have argued that although Internet technologies achieve some of the same

ends (e.g. sexual gratification through bodily or psychological release), there are fundamental differences compared to other forms of sexuality in terms of the scope and content of new media. Attention may be paid to different sexual preferences, or contact made with different people (Ross 2005:350), and the literature is replete with examples of technological change resulting in different sexual practices. For example Mowlabocus (2006, 2008, 2010a) highlights that the practice of cruising public places for male sexual partners has been changed through its various mediations via BlueTooth, the Internet, and finally mobile phone applications.

Underpinning the different approaches taken to understanding the effects of the Internet on sexuality have been a range of social theoretical perspectives. In the following section I briefly expand on this use of social theory. However, I do not subscribe to these perspectives, but am merely outlining them as illustrative of dominant modes of researching digital sexual practices.

2.3 Social theory and Internet sexuality

Social theoretical perspectives situate current digital media usage within postmodernity. For example Bauman's (2000) liquid modernity pertains to the increasing fluidity in social bonds that come with postmodernity. Drawing on Bauman, Daneback (2006:26) sees the possibilities of the Internet 'to merge the seemingly impossible dichotomy of privacy and togetherness into one'. Internet users therefore regain a confidence in interacting with strangers, a confidence apparently lost in postmodernity due to its fluid bonds. Bauman (2003) suggests that liquid modernity leads to the fluidity of love and relationships, with individuals seeking to maintain loose bonds that can be easily broken in order to respond to the variability of modern life. Used within digital sexualities research, liquid love ends in a bleak view of the consumerism of Internet sexuality, 'shopping for relations... no strings attached' (Daneback 2006:30). Accessibility and quantity (of men) have contributed, so Daneback (2006:32) suggests, 'to the increasing speed with which one throws oneself from one thing to the next'. This consumerism is linked to a specific mode of disposability within digital relations, such that 'when subjects and objects have lost their capacity to satisfy *desire* they are immediately discarded and

thrown into the waste bin' (Daneback 2006:33, emphasis added). However as will be introduced in the next chapter, a reconceptualization of desire within post human frameworks, as something other than lack, disturbs these readings of liquid love on the Internet.

In addition to the changing relations to the other, it has also been suggested that our relations to ourselves have also changed within postmodernity. Giddens (1991) identifies an increasing uncertainty regarding the self, which has in turn become a continual reflexive process. As a result, intimacy has changed under the conditions of postmodernity, seeing the rise of pure relationships, with these being relationships that are entered into only for the rewards they bring (Giddens 1992). Giddens (1992) also coins the term plastic sexuality to refer to a sexuality freed from reproductive norms, thereby leading to greater sexual choice. Digital media can therefore be viewed as part of this separation of sexuality from romance, an arena to find men to have sex with without any commitments (Daneback 2006:80). In cyber-utopian fashion, Ross (2005) reading Giddens, takes this to mean that the Internet informs and becomes a place where such reflexive sexual projects are undertaken.

In the preceding discussion the Internet can best be understood as altering 'sexual scripts' in postmodernity (Simon and Gagnon 1984). Sexual scripting is a metaphor for understanding sexual behaviour, which includes roles and actors, with scripts occurring on three levels: cultural, interpersonal, and intra-psychic (Simon and Gagnon 1984:53). Cultural scripts are the instructional guides for cultural life (Simon and Gagnon 1984:53). Access to different sexual scenes via the Internet makes possible the exploration of non-standardised cultural scripts, for example through the use of pornography (Daneback and Ross 2011:131). The interpersonal level operates in the translation of cultural scripts into concrete situations, forming a 'mechanism through which appropriate identities are made congruent with desired expectations' (Gagnon and Simon 1984:53). The anonymity of the Internet means that it has become 'possible to ask questions about sexuality that would be impossible or difficult to ask offline' (Daneback and Ross 2011:131). The Internet therefore enables a questioning of identities within interpersonal scripts. Finally at the intra-psychic level, individuals create their own scripts that govern their

behaviour. Here, again, the anonymity and the accessibility of the Internet have been linked to individuals being able to break away from these scripts (Daneback and Ross 2011:131).

The adoption of social theory in Internet sexuality research, such as that of Daneback and Ross (2011), and Ross (2005), has been instructive in understanding practices within utopic/dystopic frameworks. However the self and identity that underpins these perspectives has been critiqued within contemporary strands of social theory (Blackman 2008). Papadopoulos (2008) highlights that academic conceptualisations of identity have shifted from essentialism, to its critique and reassessment via constructionism, and more recently the affective embodied turn (see also Blackman et al. 2008). The adoption of different theoretical approaches to subjectivity and identity call for different forms of analysis, and lead to different knowledge (Weedon 2004:9). Post humanism for example, decentres the self and identity as being an essence. An example of these effects in the study of the Internet can be found in the works of Banks (2013, 2015), who applied post humanism, specifically ANT, to the study of the digital self. This resulted in a method that explored the networking together of different human and non-human elements, in the formation of different identities (Banks 2013, 2015).

Critiques of selfhood and identity call into question the humanist social theoretical approaches of Bauman, Giddens, and scripting theory. However what these prior uses of social theory have added to the study of Internet sexuality is an attention to its historically situated nature, as well as some attempt at the practical study of its complexity – as in the case of scripting theory. It is the drive for complexity that informed the methodological and analytical procedures I adopted in this study (see discussion in Chapter four). Before engaging in a more detailed elaboration of MSM's digital practices, the following discussion situates these within broader patterns of media usage and their increasing uptake in daily life (Herring 2004; Pavlik 2008).

2.4 Situating MSM's media usage within wider patterns of use

As I indicate in the introduction to this thesis, the Internet has gradually become the main venue through which sexual and romantic partners are met (Rosenfeld and Thomas 2012). The increasing enrolment of digital media as part of sexuality takes place alongside the wider uptake of these media in daily life. Using a UK based survey of Internet use, the Oxford Internet Institute have concluded that there is a growing next generation of Internet user, marked by portability and access through a number of devices (Dutton and Blank 2014). Younger people (16 to 24 year olds) have been leading the way in terms of mobile Internet use. For example from a UK population sample survey conducted by the Office for National Statistics (2015), it was found that 96 per cent of 16 to 24 year olds accessed the Internet via mobile devices, compared to 29 per cent for those age over 65 years old. In addition to changes in the methods of access, the next generation of users were found to be more likely than previous generations to create content, including the posting of videos and images on websites (Dutton and Blank 2014:36). Similar age based patterns of content creation and consumption have been found within MSM's usage of digital media.

In a quantitative study conducted in Canada of the technographics[7] of MSM, young men reported greater levels of participation and creation of content than older men, whom were more likely to be 'spectators' of social content (Allman et al. 2012:137). For example 11.6 and 9.0 per cent of 18 to 24 and 25 to 34 year olds, respectively, were creators of digital content; compared to only 7.5 of 45 to 54 year olds, and 3.5 per cent of those 55 years old and over (Allman et al. 2012:137). Furthermore, the percentage of men who were inactive or spectators increased with age, from 38.6 per cent of MSM who were 24 or younger, to just over 84 per cent for those 55 years old and over (Allman et al. 2012:137). Combined with general patterns of media usage, these studies suggest that there are qualitative differences in digital practices with age, and that there is a growing trend towards content creation.

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[7] Technographics are the patterns of social media use.

In addition to changes in use, there are a number of studies that highlight the general complexity of media usage. Media have been found to be used simultaneously rather than on their own, with younger age groups being more likely to undertake simultaneous media communications. For example a survey of media usage amongst UK adults (N = 1,138) found that 29 per cent of 16 to 24 year olds undertook simultaneous activities, compared to 20 per cent for the entire sample (Ofcom 2010:5). In more qualitative studies focusing on MSM, complex media usage has similarly been found. In Jones' (2009a) study of homosexual men in Hong Kong, it was found that the men in his study engaged in multiple activities simultaneously online, for example chatting and downloading music – a practice he terms inter-activity. Similarly gay men in Pryce's (2008) study of Internet chat would communicate with several partners simultaneously via chat rooms.

Individuals have been found to engage with different media as part of their sexual cultures of use. For example in focus groups with gay men, conducted by Gudelunas (2012a:356), men engaged with a number of social media platforms, with the mean number being five. Digital media were used for various purposes, each contributing to the men's overall practices online (Gudelunas 2012a:358). Facebook, for example, was joined for other people, whereas gay specific Social Networking Sites (SNSs) were joined for their own gratifications (Gudelunas 2012a:356) or to connect with particular (sexual) subcultures (Gudelunas 2012a:358). Collectively these various venues were seen by the respondents in Gudelunas' (2012a:359) study as elements within an elaborate sexual network of media that enabled different uses. These different purposes and uses of digital media by MSM have been illustrated by other studies that focus on single venues, as I now discuss.

In Australia, a survey of gay men who used Internet chat sites (N = 450) found that the most common reason for using chat rooms was because friends were doing/talking about it, reported by 41 per cent of respondents (Murphy et al. 2004:29). Other common reasons for using gay chat rooms were that they sounded like an easy way to "cruise" for sexual partners, 37.2 per cent, and were a good way to know someone, at 35.4 per cent (Murphy et al. 2004:29). Similarly Baams et al. (2011:1823) found that older users (aged 25 – 59 years) of websites for same-sex

attracted individuals were more motivated to join by sexual purposes, when compared to younger groups (age 16 to 24 years). These patterns have been qualitatively expanded upon in Gudelunas' (2012b) US based intergenerational comparison study of gay and lesbian Internet usage. Here it was found that due to young people being creators of their own representations, they subsequently spent less time using same-sex-specific news media (Gudelunas 2012b:13). In Gudelunas' (2012b) study there were age-based differences in the types of media consumed that were reminiscent of Allman et al.'s (2012) findings, with younger cohorts being more likely to use social networking applications compared to older cohorts (Gudelunas 2012b:10).

As with the youth in other studies of general media use (Ito et al. 2008; Ringrose and Harvey 2015), young MSM have been found to be always on(line), with new media use being 'essential' in connecting them with the 'imagined gay and lesbian community' (Gudelunas 2012b:13). That said, Gudelunas (2012b:13) found a stronger link to the *notion* of an LGBT community amongst the older members within the study. Ultimately Gudelunas (2012b:10) indicates that new media in the lives of the different age cohorts was 'a significant point of distinction'. The availability of different media resources during the coming out phase had ramifications for how different cohorts maintained their social and sexual connections. Younger age-cohorts having had access to new media throughout their homo-socialisation were digital natives, whilst the older age-cohorts were digital adopters *ex post facto* (Gudelunas 2012b:11).

Having outlined the general patterns of media use in this section, the following provides a more detailed overview of studies into specific digital sexual practices. Several reviews/compendia of research into digital sexuality have been compiled (e.g. Daneback 2006; Daneback and Månsson 2013; Doring 2009; Griffin-Shelley 2003; Grov et al. 2014). Therefore the following discussion is a selective overview of the range of MSM's digital sexual practices. As the main research aim of the current study was methodological, the focus of this review is therefore on the methods adopted in the study of MSM's digital sexual practices. However some of the findings from these studies will be explored in order to elaborate on the dynamics of these

practices, and emphasise the relative homogeneity of the outcomes from their study. For information, in Appendix B I provide an overview of findings from research focusing on the digital practice of MSM's sex-seeking, in order to explore who engages in these practices – in a sociological sense. However given the range of media touched upon in my study, trying to define the demographics of a population that is by definition open-ended, was highly impractical. For this reason a detailed exploration of the demographics of MSM who engage in digital sexual practices has therefore not been attempted in this chapter – instead consigned to the appendices.

2.5 The study of MSM's digital sexual practices within the literature

2.5.1 What digital sexual practices do MSM engage in?

Rather than attempt to pin down the characteristics of the average MSM engaging in digital sexual practices – see discussion in Appendix B – the first part of this section briefly illustrates the breadth of possible digital sexual practices. This discussion is intended to provide a general overview before exploring some of these practices as they have been studied in the literature. Cooper et al.'s (2003) Swedish online survey explored the extent of various digital sexual activities amongst a mixed gendered sample (N=3,614). Table 1 is reproduced from their publication and outlines the different digital sexual activities assessed i.e. 'Looking for love' and 'Flirt'. The authors used factor analysis in order to partition these different activities into sets of common practices, with four sets of inter-related activities or practices being identified (Cooper et al. 2003:283) – left hand column in Table 1. In order of descending variance, being the extent to which each group contributes to variation across the data, these practices related to 'Seeking Partners', 'Accessing erotica', 'Searching for information', and lastly 'Reading and flirting' (Cooper et al. 2003:283).

Table 1: Online sexual practices formed from the grouping of sexual acts; variance indicates the amount of variation in data that each practice contributes

Sexual Practice	Sexual acts
Seeking partners (21.6% of variance)	Visiting contact sites
	Looking for a partner
	Replying to sex ads
	Chat
	Contacting prostitutes
Accessing erotica (11.51% of variance)	Viewing erotic pictures/movies
	Viewing pornographic pictures/movies
	Other things
	Reading erotic texts
Searching for information (10.81% of variance)	Educating myself about sex/getting professional help
	Looking for love contacts
	Buying sex products
Reading and flirting (9.37% of variance)	Do not do anything online relating to love or sex
	Flirt
	Staying in contact with love/sex partner

Source: Cooper et al. (2003:283)

In a later paper splitting the same survey data by sexuality and gender groups, Daneback et al. (2008) found significant differences on several of the acts in Table 1, including: 'staying in contact with love/sex partner', 'reading erotic texts', 'visiting contact sites', 'replying to sex ads', 'chatting with people with same interests', and 'other things' (Daneback et al. 2008:122). For both heterosexual and bisexual men, the Internet was used primarily as a means of viewing erotica and seeking partners. Across acts where significant differences occurred, it was bisexual men who expressed their higher incidence. The largest differences were in terms of maintaining contacts and chatting with people with the same interests, 59 compared to 34 per cent, and 50 compared to 27 per cent for bisexual and heterosexual men respectively (Daneback et al. 2008:122). Though the small sample size prevented the exploration of gay male online sexual practices, this study is suggestive of differences by sexual identity, and therefore the potential specificity of MSM's digital sexual practices. Having outlined the general patterns of digital sexual practices, in the following sections I explore some of the main practices/acts encountered during my study, using Cooper et al.'s (2003) groupings as a guide.

2.5.2 Internet chat and cybersex

Being one of the earliest capabilities on the Internet, text-based conversations or Internet chat, has the most extensive literature spanning over a decade (e.g. Campbell 2004; Jones 2009a; Pryce 2008; Shaw 1997). Practices under the umbrella term of Internet chat include those related to increasing social-sexual networks, community formation, and looking for sex online (Campbell 2004:105). In addition to highly textual interactions, the practice of Internet chatting can also include other modes of communication i.e. live video interaction via Skype. Therefore, though conversations are indeed a practice that occur via Internet chat, sexual practices that lead from this include cybersex and the exchange of images (Jones 2005). The following discussion briefly outlines the practice of cybersex and picture exchange, drawing on a range of studies, some of which include mixed gender samples.

Cybersex refers to forms of real-time mediated sex, either via text or webcam – each with its own affordances (Waskul 2006:200). Text cybersex allows for the remediation of the body online through words and still images, whilst webcam based cybersex is primarily centred on "the gaze" – bodies looking and being looked at (see Kibby and Costello 1999, 2001; Waskul 2006). Cybersex practices can also involve both textual and visual modes of communication. For example chatting via text can lead to the exchange of images, which then leads to video conferencing. However textual and visual modes can be used simultaneously (Jones 2005), with Jones (2008:453) indicating that the text provides context for the physical performance. In addition to the use of Internet chat to engage in cybersex, sharing images has been found to augment the practice of sex-seeking, for example sharing pictures to verify identities (Ellison et al. 2012; Jones 2005). Furthermore, the capacity to send images has also led to a market in the exchange of images and the formation of a distinct set of social practices, known as picture exchange (Slater 1998).

Cybersex research has highlighted that it is the freedom to experiment with fantasies that forms the main attraction of these practices (Attwood 2009; Waskul 2006). Individuals engaging in cybersex can experiment and play with sexualities. For example in text-based interactions, a straight man can interact with other men, either as a man or a woman (Daneback et al. 2005). Similarly for the men in Attwood's

(2009:290) study of text cybersex, personae constructed online were understood by participants 'as self, as not-self, as a variation on the self or as a repressed or unexplored part of self'. It has also been suggested that because of the communicative potential of the Internet, this enables users to break away from capitalisms control over the means of production (Kibby and Costello 2001:359). In Kibby and Costello's (2001:360) study of interactive cybersex, the authors' suggest that the roles of producer and consumer are conflated within these practices, with individuals able to produce their own sex entertainment. However more contemporary research into Porn 2.0 (see Section 2.5.7) questions this democratising capacity of digital media – a topic that forms the basis for Chapter seven, where I outline the relation between capitalism on sexual enunciations, with specific reference to paid cybersex.

The first methodological point to note in relation to the literature on MSM's Internet chat is the relative dearth of research that explores video cybersex (exceptions being Jones 2005, 2008), in comparison to those that explore text-based interactions. Though several of the studies outlined above include MSM as part of mixed gendered samples, an examination of MSM's video cybersex practices is lacking – potentially due to difficulties in gaining institutional ethics and funding to watch live gay sex. Across these studies of MSM's Internet chat, a mixture of methods have been deployed, including online interviews (Campbell 2004; Pryce 2008; Shaw 1997), ethnographic observation (Pryce 2008), and user submissions of their interactions (Jones 2005, 2008, 2009a).

Despite multiple entryways being used into this particular digital sexual practice, the focus of research has been either on MSM's experiences (e.g. Campbell 2004; Pryce 2008), or the interactive processes through which the body is remediated online (e.g. Jones 2005, 2009a). These studies are therefore drawn towards interpreting meaning within Internet chat, and the formation of identities through these practices. For example as Jones (2005:78, emphasis added) writes, 'A textual description of the body and a photograph are not equivalent. They create *meaning* in different ways'. Later on in the same study he then goes on to state that, 'One's photograph is a much more specific and accurate expression of one's identity' (Jones 2005:80). The use of

the term accuracy implies that these practices of display operate through a sense of correspondence and representation – in contrast to Coleman's (2008a:170-171) analysis of images, for example, which acknowledges that although images "capture" the actualities of bodies, they also produce future knowledges of the body that overflow the image. An alternative post human perspective therefore challenges this focus on meaning and the representation of identities, which miss out on the affective potential of Internet chat.

2.5.3 Sex-seeking profiles and websites

There are numerous studies that use surveys and interviews to explore MSM's sex-seeking online (e.g. Bolding et al. 2004, 2007; Brown et al. 2005; Bull et al. 2004; Liau et al. 2006; Malu et al. 2004; McFarlane et al. 2000; Moskowitz and Seal 2010). However by far the largest contribution to the study of MSM's sex-seeking is through the exploration of digital sexual venues, including profiles/advertisements placed by MSM (e.g. Carballo-Diéguez et al. 2006; Dillon and Saleh 2012; Downing and Schrimshaw 2014; Grov and Parsons 2006; Gudelunas 2005; Klein 2009; Mowlabocus 2010a, 2010b; Nodin et al. 2011; Sowell and Phillips 2010; Tewksbury 2006; White et al. 2015). Content analysis forms the main method of analysing these materials, coding them into their constituent elements. For example Tewksbury (2006) categorised advertisements by race, body descriptions, and sexual acts. Similarly Nodin et al. (2011) coded advertisements for ethnicity, age, sexual identity, and sexual positions. Using a slightly different approach which looked at the venues themselves, Carballo-Diéguez et al. (2006:475) employed cybercartography to explore the characteristics of websites, finding that sites for unprotected sex associated these acts with masculinity and courage. A common theme across these various studies is a focus on HIV status and safe sex discourses, either as elements within digital sexual venues or as outcomes of their use.

As indicated by Grov et al. (2014:403) in their review of research in this field, there has been a persistent focus on sexual health within research into MSM's digital sexuality. Coding for HIV status could be interpreted as the imposition of prior empirical interests over data, rather than the emergence of these discourses, with

this being particularly the case in studies that take HIV status and safer sex as outcomes to be explored (e.g. Tewksbury 2006). This being said, the discourses of safe sex are increasingly structuring the practices and spaces of MSM's sex-seeking, through the inclusion of features that allow profile creators to indicate their HIV status (Race 2010). During the course of my study, Grindr added a feature that allowed the user to associate with a Tribe, with one of these being Poz, thereby indicating an association with a HIV-positive status (Grindr 2013). A similar geo-location based application for MSM, Hornet, also introduced a feature that allowed the user to explicitly indicate their HIV status and/or when they last received a sexual health status check (Hornet 2014).

The seeming profusion of HIV discourses in reviews such as those of Grov et al. (2014) may partly be a product of their focus on literature originating from within health allied fields. For example Grov et al. (2014) used search engines with a particular health and psychology focus, such as PubMed and PsycINFO, which therefore drew on specific disciplines. However, though a large strand of the MSM's digital sexual practices literature is allied with health fields, there are several key studies originating from other disciplines. These studies engage in a more nuanced analysis of the function and operation of digital sexual practices. The two main authors that I discuss in the following section are Jones (2009b, 2012) and Mowlabocus (2006, 2008, 2010a, 2010b), with their research originating from the humanities and media studies respectively.

2.5.4 Sex-seeking venues from within the humanities

In Jones' (2009b; 2012) studies, sex-seeking profiles were examined as 'sites of display'. Display was defined as the 'act of making oneself (usually in the form of one's body) available to the perceptions of others' (Jones 2012:82). Drawing on Goffman's (1983) interaction order as a framework for understanding the structuring of social interactions within these spaces, Jones (2009b:117) suggests that profiles mediate the body through usernames, icons, images, and text. Profiles functioned as a 'watch', meaning being observed by an audience, which then turned into a 'with' when interactions become two-way (Jones 2012:83). Along similar lines, though not

using the terminology of 'watch' and 'with' from Goffman (1983), Mowlabocus (2010a) identifies that the presentation and consumption of the self are important structuring devices in gay male digital sexual practices.

In his thesis and subsequent publications, Mowlabocus (2006, 2008, 2010a, 2010b) explored different practices within gay men's digital sexual culture. These practices included, (1) sex-seeking profiles, (2) cyber cruising[8], (3) websites for unprotected anal intercourse (known as barebacking), and lastly (4) mobile forms of sex-seeking such as Grindr, and its antecedents such as BlueTooth. A common discourse running through and structuring these different practices was identified and termed cybercarnality (Mowlabocus 2010a). It was hypothesised that cybercarnality was the coalescing of two tropes: the pornographic remediation of the body online, and the technologies of surveillance that permeate these spaces (Mowlabocus 2010a:58).

The later of the two tropes of cybercarnality, that of surveillance, is similar to the 'watch' in Jones' analysis (2009b, 2012). This trope figures gay men as engaged in the on-going process of surveying, regulating, and controlling their own and others' identities (Mowlabocus 2010a:81). Gay spaces, it was suggested, were therefore ones of looking and being looked at (Mowlabocus 2010a:81). The first trope of cybercarnality however, concerns the representation of the male body within these venues as drawing on pornographic imagery (Mowlabocus 2010a:81). In a further publication, focusing on web-based profiles, Mowlabocus (2010b:210) goes on to suggest that users take on the aesthetics of the representations they identify with. For example by associating with the pornographic representation of a Jock[9], a user comes to adopt the aesthetics of lean muscularity and other Jock traits – explored in detail in Chapter eight in relation to an analysis of sexuality across digital sexual practices.

The contribution of both Mowlabocus and Jones has been in exploring MSM's digital sexuality as complex social practices. However common to both authors was a focus on venues in isolation. Mowlabocus' (2010a) study did however give a nod to mobility and movement within MSM's digital sexual practices, through an exploration of

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[8] Cyber-cruising is the use of websites to arrange sexual encounters in public.
[9] Jock is a body description associated with lean muscularity and athleticism.

mobile sex-seeking. It is these mobile practices and venues that I address in the following section.

2.5.5 Mobile venues

Though web-based venues have formed the bulk of MSM's digital sexuality research, the next generation of Internet user is increasingly mobile (Dutton and Blank 2014). Sex-seeking has accordingly migrated, as illustrated in Mowlabocus (2010a) where he charts the rise of mobile forms of sex-seeking. The most publicised of mobile sex-seeking applications is Grindr (Vernon 2010), though other MSM apps are available. The unique capability of these apps is that they combine with the geographic positioning system within a device, allowing for the real-time locating of other app users. In response to these technological changes, the use of mobile geo-spatial applications is a growing field of research (e.g. Beymer et al. 2014; Blackwell et al. 2015; Brubaker et al. 2016; Lee et al. 2012; Licoppe et al. 2015; Miller 2015; Race 2015a, 2015b; Rice et al. 2012; Roth 2014, 2015). The main methods used to research mobile apps have been forms of elicitation such as interviews (e.g. Brubaker et al. 2016), or surveys (e.g. Beymer et al. 2014; Rice et al. 2012), to explore user demographics, experiences, and usage patterns. To a lesser extent, the content of profiles has been analysed in terms of representation and meaning (e.g. Blackwell et al. 2015; Roth 2014).

In a departure from dominant modes of research and analysis, Licoppe et al. (2015) undertook discourse analysis of direct interactions between app users. Exploring interactions via media is an uncommon research design amongst digital sexuality research, for ethical reasons of accessing personal communications – see Jones' (2005, 2008) studies of interactions via Internet chat for other examples. Further departures from the research norm can be found in Race (2015a, 2015b), where the author explored the use of Grindr, amongst other 'hook-up devices', using insider-ethnographic methods from his own engagements with these media. Insider-ethnography as a means of data generation has been used previously in the field of MSM digital sexuality research. For example McLelland (2002) reflected on his own online sex-seeking in Japan in his ethnography of Japanese gay culture online. In

Race's (2015a, 2015b) study of hook-up devices, the author analysed interactions in terms of their relationality and affective force. This affectivity was the ability of devices to shape sexual practices (Race 2015b:500). Race (2015a, 2015b) is one amongst a handful of studies of MSM's digital sexuality that analyses the affective capacities of sexual media (see also McGlotten 2013[10]).

The move to affect and relationality in Race (2015a, 2015b) opened up his research to the production of sexual experiences that overlapped, for example that casual sex and chatting can become blurred into one. Furthermore, a relational affective approach enabled Race (2015b:498) to explore how 'different modes of relationality are enacted and assembled in a range of socio-material settings'; meaning how different bodies and digital media come together to produce different affects. Race (2015b:499-500) adopted what he termed speculative pragmatism in order to analyse how the affordances of digital sexual media are used and put into practice. This allowed for an exploration of the entanglements afforded by 'material settings, spaces, devices and practices of gay sex' (Race 2015b:507). Ultimately, in moving away from studying representations, Race's (2015b:508) focus on interaction and affect attempted to account for the materiality of the multiple worlds that digital devices generate. It is this focus on materiality and its affects that my study sought to expand upon.

2.5.6 Digital sex work

The final strand of activities relating to seeking partners within Table 1 is the use of digital media for sex work. As I highlight in greater detail at the start of Chapter seven, the Internet has emerged as a new venue for sex work. The study of male sex work is an emerging field, however what research exists, illustrates consistently that the Internet has become a viable alternative to offline forms of sexual commerce (e.g. Aggleton and Parker 2015; Bimbi 2007; McLean 2013, 2015; Minichiello and Scott

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[10] In McGlotten's (2013) engagement with post humanism, specifically that of Deleuze and Guattari, the author's use of affect tended toward affect as emotion and felt experience – rather than affect as change adopted in my study. For this reason, a more detailed examination of McGlotten's (2013) work has not been provided, instead favouring that of Race (2015a, 2015b), where materiality was brought to the fore.

2014). For example in their meta-analysis of research on prostitution, Harcourt and Donovan (2005) classify the Internet as a new space for soliciting clients. However as with sex-seeking, the Internet and digital media not only augment existing practices, but also lead to new practices such as paid cybersex (Harcourt and Donovan 2005:203). Chapter seven explores in greater detail these nuances, illustrating how digital media both augment and alter the practice of MSM's commercial sex work.

As with the study of other forms of digital sexuality, research into MSM's digital sex work has focused on patterns and experiences of such work, through interviews, surveys, and mixed methods studies (e.g. Bimbi and Parsons 2005; McLean 2013, 2015; Mimiaga et al. 2009; Walby 2010, 2012). A second strand of research has explored the content of profiles on sex worker websites (e.g. Logan 2010; MacPhail et al. 2015). However unlike the general field of sex-seeking, the use of content analysis is not as widespread, potentially reflecting the budding nature of research into male sex work (Weitzer 2009:222). Furthermore, despite novel forms of digital commercial sex work such as paid cybersex, scholarship into the practices of MSM focuses on the augmentation of their commercial sex activities. Within the new domain of paid cybersex, the majority of studies have been of female performers (e.g. Bleakley 2014; Jones 2015a, 2015b; Reece 2015). It has been suggested by Bleakley (2014:892) that paid cybersex venues represent new and democratised forms of sex work, leading to a 'unique transactional relationship between performer and consumer'. However Jones (2015a) warns that not all experiences are liberatory, and that paid cybersex replicates gendered, classed, and raced divisions. Furthermore, the Internet also brings its own set of dangers to sex work, including cyber-bullying and breaches of privacy – something I explore further in Chapter seven.

The single paper on MSM's paid cybersex by Henze (2013), explored what the author termed the "gaying" of these spaces – meaning the fostering of gay desire. Henze (2013:55) interpreted paid cybersex venues as being based on a 'narcissistic relation to oneself and the other', and the actions of 'browsing and being browsed'. This browsing is reminiscent of cybercarnality's 'looking and being looked at' (Mowlabocus 2010a:81). A commonality between Henze and other studies of paid

cybersex is that they highlight the economic aspects of these performances. However Henze's paper mainly approached these practices as pornographic genre rather than as a form of direct sex work. Framing performances as pornographic leads to a focus on the representational work that takes place, rather than the exchange between performer and audience as an interactional achievement, as found in other studies that approach these practices as sex work (e.g. Bleakley 2014; Jones 2015a). There is therefore a blurring of the same practice across different perspectives, between sex work and pornography. It is these new genres of user-generated pornography, Porn 2.0, which I explore in the following section.

2.5.7 Porn 2.0

This section focuses on the second most prominent set of sexual practices identified by Cooper et al. (2003), relating to 'accessing erotica' (Table 1). The wider digital sexuality literature has charted the formation of new pornographic genres and spaces, known as Porn 2.0 (Attwood 2010; Mowlabocus 2010c; Paasonen 2010). These new genres of pornographic material can be situated within wider developments in digital media. Beer and Burrows (2007) suggest that shifts from Web 1.0 to 2.0 were marked by a move toward increased content creation and collaboration. By all appearance there has been a democratisation of user contributions, with an increasing number of platforms allowing content creation and display. However the democratisation of production opens pornography and other digital sexual media to new economies of capitalistic exploitation (Mowlabocus 2010c). The chapter on commercial sex picks up these themes in greater detail (Chapter seven).

In terms of Porn 2.0, shifts to content creation translate into the plethora of digital sexual venues that allow users to post and consume amateur pornography (Paasonen 2010). The following quote from Mowlabocus' (2010c:82), writing on the Porn 2.0 genre, reflects recurrent themes across the literature into Porn 2.0 and digital sexual practices more generally:

> Amateurs transform their real bodies into (immaterial) digital
> bodies that can enter the XTube economy and earn capital. In

> doing so they simultaneously enter into a parallel economy, one that legitimates them through ratings, comments and tagging, and increases their sub-cultural capital and standing within the social network

Firstly this quote illustrates the entry of digital practices into economies and their subjection to capitalist exchanges, thus echoing concerns regarding the reduction of sexual contacts to consumerism (Daneback 2006; Ross 2005). Secondly this quote illustrates the sense with which Porn 2.0 practices, much like Web 2.0, is increasingly searchable, networked, and contributory. The social practice of tagging pornographic videos for example, renders these materials searchable and consumable (Mazières et al. 2014). These trends toward commoditisation of digital pornography, along with tangible changes in how such materials are produced/consumed, therefore requires changes in how these practices are researched.

In his work on gay pornography more generally, Champagne (1997:77) urges researchers to stop reading pornographic films, finding that such close analysis 'obscures some of the social functions of gay pornography'. This comment was seemingly aimed at film studies researchers, given that the majority of studies in the field of digital sexuality focus on the consumption of pornography, rather than its form or production. However studies that focus on MSM's consumption of digital pornography tend to focus on patterns and correlates of use, suggesting that a large majority of MSM have viewed or been exposed to pornographic materials (e.g. Eaton et al. 2012; Kvalem et al. 2016; Nelson et al. 2014; Rosser et al. 2013; Stein et al. 2012; Traeen et al. 2015). Where attention falls on the materiality of digital pornography, the meaning and representation of its content is predominantly explored. For example Mercer (2012) charts the rise of a specific genre of gay pornography online, "Daddy porn" – the fetishisation of older men entering into sexual relations with younger men. The author proceeded to explore 'whether this mode of representation is a reassertion of patriarchal masculinity and a problematic eroticisation of abusive power dynamics' (Mercer 2012:313). The focus within Mercer's (2012) study was therefore on reading pornography in terms of the representation of masculinity and power.

Along different lines of analysing the materiality of digital pornography, Downing et al. (2014) explore unprotected anal intercourse within a corpus of gay male Internet sexually explicit media (SEM), posted to video sharing websites (N=302). Content analysis was conducted of SEM materials, focusing on: the presence of sexual activities undertaken, evidence of ejaculation, substance use, safe sex, as well as contextual information such as tags assigned to videos and the number of views videos had received. Differences were found between the content and practices displayed in amateur compared to professional videos, such as more intimate acts (kissing and oral sex) and greater condom use during anal intercourse in professional SEM (Downing et al. 2014:815). Downing et al.'s (2014:818) study found that the prevalence of unprotected and protected anal intercourse across amateur and professional content was similar, which it was suggested indicated that SEM was normalising sexual risk behaviours amongst MSM. However these findings can be tempered by a study conducted by Mowlabocus et al. (2014), again into unprotected anal intercourse, this time exploring the meaning and representation given to the consumption of SEM by MSM.

Using content analysis of videos, in addition to focus groups, Mowlabocus et al. (2014) found that MSM assigned different meanings to SEM that depicted unprotected anal intercourse. The first form of unprotected intercourse was interpreted as taking place between monogamous partners. The second, commonly referred to as barebacking, was a more transgressive form of unprotected sex (Mowlabocus et al. 2014:1468). Mowlabocus et al.'s study therefore problematises that of Downing et al.'s (2014) who link Internet-based SEM with increases in unprotected sex. It highlights that unprotected intercourse has different meanings within sexual practices, raising the possibility that the sexual intercourse viewed by Downing et al. may have been between monogamous partners. Though these two studies contribute different knowledge's of similar digital sexual practices, they both perform a reading of these practices in terms of their meaning; whether this be the meaning ascribed to materials by the researcher (e.g. masculinity and power), or MSM themselves.

Instead of reading pornography and trying to decode it in terms of its meaning, Champagne (1997:81) advocated that the study of pornography should describe what users of pornography do (Champagne 1997:82), and elaborate on common sense understandings of the practices of producing and consuming pornography (Champagne 1997:83). There are several notable studies from the wider field of digital pornography research that take this approach of following the practices of digital pornography, which I review in the following section.

2.5.8 Alternative approaches to Porn 2.0 in the wider literature

In Mazières et al. (2014) paper on pornographic content on the Internet, digital traces created in the production and consumption of such materials were explored. Using quantitative methods – usually relegated to the analysis of survey data – the researchers analysed the frequency of tags associated with online pornographic videos, before going on to examine the interconnection of user-generated tags. Their analysis resulted in a network of tags, highlighting those tags that were used together and formed densely connected clusters (Mazières et al. 2014:88). It was found that videos tagged as gay formed a distinct cluster, with the tag bisexual forming a bridge between this cluster and all other tags – indicative of the relative isolation of gay pornographic content on the video sharing site under study (Mazières et al. 2014:89). The isolation of gay media may however have been an artefact of the site under study, being a general SEM sharing website. The same analysis applied to a "gay space" may have revealed a different set of associations.

Along similar lines of analysing user-generated materials, Lindgren (2010) explored the reception of online heterosexual pornography. The author attempted to address the perception of porn users as 'lone masturbators' (Lindgren 2010:175). The study therefore accounted for Champagne's (1997) call to look at the practices of viewing pornography, in this case by exploring digital pornography use as a community practice. The data for Lindgren's (2010:176) analysis was a corpus of 5,887 posts originating from an online message board, aimed at heterosexual pornography users. The forum was one where users could comment on pornographic films and their stars. The language used within these messages was analysed quantitatively in order

to explore the interrelationship between concepts, thereby producing a network map of the discursive space of the message board (Lindgren 2010:176-177). Lindgren found that the discourses of porn-fandom revolved around the presentation of the viewer in front of a presumed homosocial peer group, and was therefore suggestive of a community practice (Lindgren 2010:183).

Moving from the audience of pornography to an examination of the practice of pornographic searching, Månsson and Söderlind (n.d.), explored the interconnection of pornographic websites in Sweden. Using search engines to initially find pornographic sites, the researchers then worked outwards from these, following hyperlinks to various other sites (Månsson and Söderlind n.d.:5). Using a method of following phenomenon, rather than making *a priori* assumptions about sites that constituted pornographic genre, meant that Månsson and Söderlind (n.d.) found numerous instances of the blurring of pornography online. For example a finding from this study was the interlinking between pornographic websites and what they called 'youth sites', these being community websites catering to adolescents (Månsson and Söderlind n.d.:11). Furthermore, the authors found that the sex industry online was composed of a series of elements. These elements worked in concert to make bodies flow through the entire online assemblage, with this flow equating to money (Månsson and Söderlind n.d.:8). For example advertisements direct users to other venues; the act of clicking on advertisements produces money for both the website hosting the advertisement and the site to which it is linked.

The final example of a novel study of the Porn 2.0 genre was conducted by Johnson (2011) and explored the online pornography industry, mapping out the links between online commercial companies. Unlike Månsson and Söderlind (n.d.) who followed hyperlinks, Johnson (2011) used data from business reports to construct a network diagram of the connections between companies composing the online pornography industry. Analysis found that this industry had, at its core, a dominant set of active players (Johnson 2011:202). These core companies used dense sub-networks of affiliated sites in order to 'ensnare consumer choice to extract maximum profit' (Johnson 2011:189). Like a spider deploying its web, larger companies were able to increase the chance of users becoming ensnared by expanding sub-networks.

Johnson (2011:189) summarises that rather than satiating desires, the pornography industry was structured to acquire profit, and the use of network analysis provided a description of the material foundations of this structuring (Johnson 2011:203). The different perspectives adopted by Johnson (2011) and the other studies I have explored in this section, open up new spaces of academic discourse outside of data gathered on pornography-using MSM, to look at the materiality of such practices.

2.6 Summary: Making the case to study MSM's digital sexual practices differently

In this chapter I have firstly outlined the population of interest, being MSM. Given the polymorphous nature of sexuality in general, and the mediated nature of digital sexual practices, then taking MSM to define the population under study was purposefully contingent and open to change. For example men performing on paid cybersex websites may indicate they are straight, and still perform for a predominantly male audience. To have labelled these performances as gay or straight belies the fact that they are neither and both of these, being always in between. After defining MSM, the discussion moved to theories of Internet sexuality in order to situate my study within current understandings of the effects of the Internet. These perspectives were given as they form recurrent tropes within Internet research and public discourses, for example that the anonymity of the Internet has led to different socio-sexual practices (Ross 2005). However as noted in the ensuing discussion, these theoretical stances are premised on a self and identity that has been challenged by the affective turn in the social sciences (see Blackman et al. 2008; Papadopoulos 2008). An important movement within this 'turn to affect' has been post humanism (Blackman and Venn 2010). As a theoretical perspective that de-centres notions of the self and identity, post humanism poses a direct critique of theories of the net that draws on these themes.

In the final and most substantive part of this chapter I provided an overview of research into a number of digital sexual practices. Acts/practices explored in detail were Internet chat, sex-seeking (both mobile and web-based), sex work, and digital pornography (Porn 2.0). This review intended to illustrate the relative homogeneity

of methods and "objects" of study across the literature, rather than provide insight into the demographics of the MSM population – this analysis can be found in Appendix B. In summary, the literature on MSM's digital sexual practices primarily draws on interviews, surveys, and content analyses, focusing on the representation and meaning that these practices hold. Toward the end of the following chapter (Chapter three) I situate this continual return to humanist epistemological positions within a particular mode of thought in contemporary society. At this stage however it can be said that there is relative deficit of difference in methods and epistemologies across the extant literature in this field. Furthermore, the materiality of digital practices is not afforded the potential to produce agency outside its use as a representation for an offline referent.

Though there are some examples of the turn to affect in the study of MSM sex-seeking (e.g. McGlotten 2013; Race 2015a, 2015b), the main epistemological and ontological differences in research practice originated within studies of pornography (Johnson 2011; Lindgren 2010; Månsson and Söderlind n.d.; Mazières et al. 2014). These studies were found to apply complexity theories as frameworks for the collection and analysis of data. The reasons for adopting these frameworks differed, however there were some commonalities. There was an expressed need to acknowledge the fuzzy nature of phenomenon, which it was hoped complexity theories would help address. For example Mazières et al. (2014) explored the collective a-centred production of user-generated tags, whilst Johnson's (2011) study was premised on the increasingly blurred boundary between producers and consumers (prosumers) within the online pornography industry.

Related to this blurring and messiness were more methodological concerns i.e. that messy phenomenon are large, unwieldy, and not amenable to standard research methods (Law 2004). Networks and complexity addressed the methodological challenge of analysing mess, whilst keeping it messy (Law 2004). Messy methods used in these studies were therefore also political, in order to escape from *a priori* assumptions regarding the nature of phenomenon. In the case of Johnson (2011) this was to escape the polar debates of pornography as exploitation or liberation. Lindgren (2010) sought to move away from the image of pornographic consumption

as being a solo activity. Finally Race (2015a:253) used a relational and affective approach to open up HIV prevention to more post human concerns, being how objects and devices participate in the construction of sexuality. My study shared these political concerns, in this case to move away from the dominant ways of researching MSM's digital sexuality that are heavily allied to health and embedded within humanist approaches to studying phenomena.

Direct reference to post humanism is relatively scant in the study of MSM's digital sexual practices – Race (2015a, 2015b) being an exception. This thesis therefore contributed a relational post human approach to the study of MSM's digital sexual practices. Law and Urry (2004) suggest that methods enact reality. Therefore in choosing to adopt complexity methods based on networks and post humanism, I sought to enact the cultures of connectivity that digital media are increasingly coming to form (van Dijck 2013). Furthermore, as the Porn 2.0 literature indicates, methodologically it is appropriate to use complexity methods to explore connective practices, and incorporate the affordances of the media themselves into the research process. The choice to pursue an alternative line of enquiry therefore made both political and methodological "sense".

As I have shown in this review chapter, across the digital sexualities literature, there is a tendency to privilege human and representational practices in research. This does not afford the materiality of MSM's digital sexual practices a sense of due agency to come to affect sexuality and generate realities of their own (Race 2015a). A call to complexity, specifically post humanism, was a call to account for the materiality of MSM's digital sexual practices differently. This focused the aim of my study in addressing how the *materiality* of MSM's digital sexual practices could be researched differently? And what did this different perspective bring to the study of these practices, and the practices themselves? The following chapter expands on the post human approach I adopted in answering these overarching research questions. It also introduces further research questions that originated from data glowing (MacLure 2013b), in the interaction between field observations and my reading of DeleuzoGuattarian theory. Ultimately it traces the translation or displacement of

post human ontology into an epistemological position – denoted by the arrow used in the title, onto→epistemology.

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Chapter 3 – Onto→epistemology: Translating DeleuzoGuattarian ontological concepts into epistemology

> A distinction must be made between two types of science, or scientific procedures: one consists in "reproducing," the other in "following." The first involves reproduction, iteration and reiteration; the other, involving itineration, is the sum of the itinerant, ambulant sciences (Deleuze and Guattari 2005:372)

In this quote Deleuze and Guattari suggest that two kinds of science can be undertaken: one that proceeds by reproducing knowledge, the other that generates new knowledge. However understanding this position first requires situating it within a broader DeleuzoGuattarian ontology. The first part of this chapter therefore introduces the main conceptual apparatus of Deleuze and Guattari (2005, 2005), and the terms that recur throughout this thesis. However my discussion begins by exploring current debates regarding the nature of digital interactions, specifically their materiality. Post human perspectives question the boundaries between usually unitary entities i.e. nature/culture, human/technology (Haraway 1991). These perspectives therefore pose a useful way to overcome the profusion of dualisms within Internet research, such as the online/offline and virtual/real. My discussion then proceeds to outline the post humanism of Deleuze and Guattari, both in their joint and separate works (Deleuze 1992, 1995, 2004; Deleuze and Guattari 2000, 2005; Guattari 2000, 2006, 2009, 2011, 2013). In particular I focus on concepts that are integral to their ontology, including: assemblages, de- and re-territorialisation, desire, the molar/molecular distinction, and finally the different ways of doing science introduced above.

In the second half of this chapter I move from a DeleuzoGuattarian ontology toward an understanding of their epistemology. The title of this chapter, onto→epistemology, is evocative of the drift to a mode of conducting research based upon on an ontology of complexity, referred to as a minor science (Bonta and Protevi 2006:81). Ontologies of complexity view phenomenon as arising from relations

between elements, human and non-human, in the formation of complex wholes. I situate research into the digital sexual practices of MSM outlined in Chapter two, within a particularly anthropocentric mode of conducting research i.e. a defaulting to meaning and representation. Throughout my discussion, the budding research interests that directly informed my study are explored further, beyond the central aim of researching the materiality of MSM's digital sexual practices differently. Research interests evolved in the interplay between digital materials in the field, and theory. For example the choice to explore digital commercial sex came from the recurrence of this phenomenon, and my reading of Deleuze and Guattari (2000, 2005), which is particularly critical of capitalism. I conclude this chapter by summarising these research interests, framed as questions. As I was heavily influenced by post humanism, the following discussion provides a brief overview of the broader post human literature as a way of introducing the topic.

3.1 A brief introduction to post humanism

The field of post humanism is diverse, however collectively post human ontologies are ways of viewing the world that call into question anthropocentrism, acknowledging the agency of both human and non-human actors (Bryant 2011:249). For example Barad (2003, 2007) views the world as a series of interactions, or intra-actions, between things, be these discursive or material. Alternatively Latour (1996, 2005), Law (1991, 1994), and Callon (1999), have each contributed to the ontology known as Actor Network Theory (ANT). ANT views the (social) world as neither entirely natural nor social in origin, but existing in the nexus between the two (Crawford 2005:1). Advocates of ANT, for example Latour (2005), suggest that researchers should explore the interrelationship between elements by following the actors. Common across these post human positions is the focus on the material and social-worlds of objects (Bryant 2011:249). As a result, new materialism is sometimes used interchangeably to refer to these positions (Dolphijn and van der Tuin 2012).

As indicated at the end of the previous chapter, this thesis sought to explore the materiality of MSM's digital sexual practices. The choice of post humanism, and the framework of network-assemblages to structure my study, lay in the more-than-

human aspects of the world that post humanism can bring to the fore. However as Buchanan (2015:382) argues, assemblages are about more than the coming together of random elements to form complex wholes. Instead an assemblage has purpose or function. Assemblages therefore provide a frame for analysing the purposive production of sexual intensities. Networks however enabled the exploration of the connectivity of MSM's digital sexual practices. The remainder of this chapter outlines the particular post human ontology I deployed in this thesis. However as a study of/on the Internet and digital media, it is important to firstly situate the position adopted within Internet studies more broadly.

3.2 Dichotomies of the digital

The field of Internet research is replete with dichotomies, including the online/offline and the real/virtual (Slater 2002). Early researchers working from within postmodern frameworks viewed the mediated and disembodied nature of the Internet as offering what Hine (2000:7) referred to as a virtual playground. Here the fractured self within postmodernity could be reinvigorated through the 'realization of the Cartesian dualism' (Young and Whitty 2010:217) – the split between the mind and the body. However the online/offline dichotomy, and the disembodied nature of Computer Mediated Communication (CMC) it implies, has been called into question by successive researchers (e.g. de Koster 2010; Leander and McKim 2003; O'Brien 1999; Robins 1995). The postmodern 'hypes and hopes' afforded to CMC have slowly fallen away (Boler 2007) with changes in patterns of new media use; from the early adopters, those in Multi-User-Dungeons for example, to the everyday media user on their mobile phone (Robinson 2007). However there continues to be reference to online worlds and cybernetic disembodiment in discourses circulating through modern culture (Leander and McKim 2003; Muri 2003). Disrupting these boundaries is important as dualisms are imperfect, and 'provide a priori answers to some of the most intriguing questions about internet practices' (Lankshear et al. 2011:149).

Several texts regarding the conduct of Internet ethnography have attempted to bridge these dichotomies. Hine (2000) indicates that the Internet can be thought of as both culture and cultural artefact. Though this acknowledges the complex nature

of the Internet, it creates a different set of dichotomies, between objects and culture (Hine 2000:39). From a social constructivist perspective, Slater (2002) suggests that where new media are considered as virtual places-apart and distinct from the offline, then this is a social achievement rather an inherent quality of new media. However the work of van Doorn (2011), in exploring digital spaces, questions the ontological foundations of the online/offline dichotomy, as well as the real/virtual. Drawing on Deleuze, amongst other poststructuralist thinkers, the author indicates that new media are 'hybrid assemblages of embodied users, cultural discourses and new media technologies' (van Doorn 2011:535). Within this framework the virtual presence of users comes to matter, and has materiality, through text and images (van Doorn 2011:534). As illustrated by van Doorn (2011), in addition to questioning the online/offline distinction, there have been shifts in understandings of the virtual, from the virtual as simulation to one where it is seen as a 'coherent social space' (Slater 2002:534).

> Platforms such as Internet Relay Chat (IRC) or MySpace are 'digitally virtual' spaces in which the virtual is not only an inextricable part of users' everyday reality, but also becomes harder to separate from the materially concrete (van Doorn 2011:534)

In this quote, rather than opposing the virtual to the real, van Doorn highlights how the virtual is an integral part of reality. The virtual is something real, and not a simulation. In his thesis on self-help websites, Sellerberg (2012) found that the practice of posting to forums was the actualisation of something virtual. As such, digital objects can be viewed as material idealisations, abstraction made flesh (Evens 2010:148). However they have a materiality and a reality of a different kind (Friedberg 2006:11). Van den Boomen et al. (2009) express a similar sentiment when they call for an exploration of the digital as materiality.

Rather than being synonymous with the digital, the virtual means to be 'in excess of one's actual state' (Hansen 2004:50-51), and can therefore relate to all things. In a DeleuzoGuattarian ontology, the virtual comes to be the plane of potentialities, the sum of all possible ways of configuring the world (Bonta and Protevi 2006:164). In terms of digital sexual practices, this means that virtuality therefore encompasses all

possible routes through hyperspace (DeLanda 2006:83). However these virtual possibilities are actualised by MSM in specific ways; this implies that there are therefore things not immediately present that structure the materiality of the world into certain actual states (Papadopoulos 2010:75). For example Sutko and de Souza e Silva (2011:33) indicate that in the process of use, the virtual potential of geo-locative technologies (e.g. Grindr), can become any number of actual instances, as the technology reconfigures itself in relation to other users within mediated space.

Ontologies based around assemblages shift away from considering the world in relation to essences, to the world in terms of complexity – its virtual possibilities. Deleuze and Guattari (2005:5) state that 'Binary logic is the spiritual reality of the root-tree', meaning that the dichotomies of the Internet are symptomatic of a particular kind of logic within our society. This logic of the root-tree, is linked to the fixing of order and tracing that which is already known (Deleuze and Guattari 2005:7), for example Internet studies that reproduce the on/offline dichotomy. To this logic based around binarisms, Deleuze and Guattari (2005) counterpoise a logic based on assemblages. These assemblages, or cyborgs (Haraway 1991), are a hybridisation of human and non-human elements and a way of framing complex systems. In the following section I introduce assemblages as one way of reconfiguring the materiality of digital sexual practices. In doing so I thereby forge 'a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves' (Haraway 1991:181). Proceeding the discussion of assemblages are the other key concepts from Deleuze and Guattari (2000, 2005) that are applied throughout this thesis.

3.3 Key DeleuzoGuattarian concepts

3.3.1 Assemblages

Assemblages are central to a DeleuzoGuattarian ontology, marking a shift from considering the world in terms of unitary things, to thinking of things in terms of heterogeneous entities that work together for a time (Muller 2015:28). Bodies[11] are

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[11] Body is used liberally in Deleuze and Guattari's (2005) works to refer to any complex entity composed of parts, where it is the relationship between these parts that means that bodies react to situations in particular ways (Baugh 2010:35).

therefore not unitary but are machinic assemblages, in the sense that they form through their connections with other human and non-human elements (Currier 2003; Malins 2004). However rather than being random collections, 'there is a sense that an assemblage is a whole of some sort that expresses identity and claims a territory' (Wise 2005:77). Assemblages therefore have functional capacities, in that they do things. Furthermore, assemblages are not permanent but are always assembling, their constituents coming apart and moving into other assemblages (Wise 2005:84).

A profile on a sex-seeking website is an assemblage of elements, including text and images. When the creator of the profile logs into their profile they, along with the profile, enter into what could be called a sex-seeking assemblage. However the profile will form different assemblages when it is accessed and viewed by other members of the website. The identities or functions of these assemblages could be seen as part of sex-seeking. Alternatively images within the profile assemblage might also form part of a masturbation assemblage, providing visual stimulation for the viewer. This function as masturbation assemblage has been illustrated by Robinson and Moskowitz (2013), who found that the act of looking for sexual partners online had an erotic potential outside of any actualised encounters it produced. Similarly Tziallas (2015) found that erotic exchanges that were the by-products of sex-seeking on MSM apps, such as looking at and exchanging pictures, were as much a draw to using "sex apps" as the potential for offline sexual encounters. Thinking of digital objects and practices as material assemblages also changes how research views sexuality drawing on and generating these materials.

Engaging with the materiality of media and mediated enunciations led Sharma (2013:48), in his study of race on Twitter, to re-conceive race as an assemblage. Similarly, my engagement with the materiality of digital sexual practices meant that an important assemblage mapped out throughout this thesis was the 'sexuality assemblage' (Fox and Alldred 2013). In Fox and Alldred's (2013) writing on new materialism and sexuality, the authors adopt a DeleuzoGuattarian ontology as a way to move sexuality from being the sole provenance of the human (body). Instead sexuality, or the capacity to generate sexual and erotic effects, is located in the

interrelationship between bodies, words, and things (Fox and Alldred 2013:772). By opening up sexuality and the production of sexual intensities to an assortment of human and non-human intensities, Fox and Alldred's (2013) concept of the sexuality assemblage is an empirical manifestation of Deleuze and Guattari's (2000:293) sentiment that 'sexuality is everywhere'.

In the current study I explored the insertion of digital media into sexuality assemblages, as an intermediary, but also the formation of completely different sexuality assemblages, through its actions as a mediator (Latour 2005:39). Furthermore, though sexuality as assemblage opens up what "counts" as sexual, as highlighted in the introduction, this study was not an attempt to empirically explore this wider definition of sexuality as panoply of forces – for example the 'affective and sensual dimensions of sexuality' (Austin 2016:279). Instead, analysis was focused on the materiality of MSM's digital practices as an assemblage. Therefore In terms of understanding the everywhere-ness of sexuality, the question asked of my empirical materials was <u>what forms does sexuality take as part of the materiality of MSM's digital sexual practices?</u>

Assemblages as becomings

Adopting Deleuzian assemblages shifts the impetus of analysis away from the functional implications of asking what a body means and what its essences are, instead asking what relations a body has (Fox 2012; Fox and Alldred 2015b). This therefore marks the shift from talking about things in terms of their being in the world, to what they are continually in the process of forming – known within a DeleuzoGuattarian ontology as 'becoming' (Bonta and Protevi 2006:59). In the example of sex-seeking profiles, logging into a profile is a temporary becoming. When the profile creator logs off they become something else: a student, a boyfriend, a researcher etc. This machinic capacity to connect up to different assemblages transforms the limits of the body and what it can do, such that 'function or meaning no longer depends on an interior truth or identity, but on the particular assemblages it forms with other bodies' (Malins 2004:84). Within this thesis, the various new media adopted by MSM each allow for a different set of becomings. However media

are not prosthesis to the unitary body (Currier 2003:325). For example sex-seeking profiles do not merely add their properties of telepresence to that of the profile using body. What happens is a symbiosis through the assemblage of profile-body, with this being 'marked by emergent properties above and beyond the sum of the parts' (Bonta and Protevi 2006:59). Before going on to explore DeleuzoGuattarian assemblages in greater detail, the following critical discussion situates them within wider complexity theories.

Assemblages as they relate to complexity theory

Though some aspects of the world are stable, and can therefore be made clear and definite through research (Law 2004:2), a large part of what makes up this stability is 'complex, elusive, ephemeral, and unpredictable' (Law and Urry 2004:404). The turn to complexity has brought with it 'a shift from reductionist analyses to those that involve the study of complex adaptive ('vital') matter that shows ordering but which remains on 'the edge of chaos'' (Urry 2005:1). In the social sciences, complexity analysis brings to the fore the order and disorder of social phenomenon, rather than focusing on them solely in terms of their structuring (Urry 2005:12). However there are different standpoints on complexity, for example networks and assemblages, and how a researcher views this complexity comes to affect their research approach. For complexity theorists such as Law and Urry (2004:395), because they view reality as relational, they therefore draw on relational approaches in the study of social phenomenon. More generally however, Mol and Law (2002:1) define complexity as being instances where 'things relate but don't add up'. It is this 'not adding up', or the emergence of systems, that forms a central idea amongst many of the variants of complexity theory (e.g. DeLanda 2006; Urry 2005).

Phenomena emerge not from the sum of their parts, but from the 'system effects that are different from their parts' (Urry 2005:5). For example in DeLanda's (2006:5) assemblage theory, the author posits that assemblages are emergent wholes, 'whose properties emerge from the interactions between parts'. However for Buchanan (2015), it is precisely this focus on emergence that misses the mark in terms of complexity. Focusing on emergence falls into the trap of treating assemblages as a

mere adjective (Buchanan 2015:391). Furthermore, Urry (2005:3) has cautioned against the treatment of complexity more generally as being a by-word for the complex. To do so would be to fall into an analysis of what Kwa (2002) calls romantic complexity.

Kwa (2002) distinguishes between two types of complexity: a romantic and a baroque complexity. The romantic analysis of complexity seeks to bring unity to a world of heterogeneous objects (Kwa 2002:24). In comparison to this sits an analysis of baroque complexity, as advocated by Buchanan (2015), through a stricter adherence to DeleuzoGuattarian ontology. A baroque complexity pays more attention to the 'lower-order individuality' of the many elements making up the 'higher level' (Kwa 2002:30). These forms of complexity are associated with different directions of looking. The romantics look up to recognise the higher-order as a whole, whilst those working in a baroque fashion look down to observe 'the mundane crawling and swarming of matter' (Kwa 2002:26). A baroque sensibility therefore opens itself up to the discovery of everything (Law 2004:22). The application of the romantic perspective on the other hand starts from the pre-supposition of the existence of a network, a single whole (van Wezemael 2009:85). When discussing the Internet this is the prevailing assumption, that it exists as some complex web of interconnections, or to use the DeleuzoGuattarian term, is rhizomatic. However as Buchanan (2007:1) has argued, the rhizomatic Internet is to an extent a fallacy – sheer romance.

This thesis originated from my observations of linkages between media, rather than an assumption that a network existed and that digital sexuality functioned as a rhizomatic assemblage of various media. Furthermore, the analysis and presentation of my findings is not premised on the assumption that the network-assemblage functions as a single whole. There are certain pathways used by MSM that I bring out through vignettes of media use (Section 5.2.2).

Despite Buchanan (2015) raising valid concerns over the misappropriation of assemblages in certain forms of (romantic) complexity theories – ANT specifically – Kwa (2002:46) finds that the romantic and the baroque do not succeed one another as paradigms of thought. They are discourses on complexity available to the sciences that are both used contemporaneously (Kwa 2002:46). However Law (2004:24), in an

article on complexity using Kwa's two ideal types, provides a warning for those attempting to undertake a baroque study. He states that 'the baroque is very hard to achieve within the canons of the academy, and those who attempt it are easily treated as confused and unclear' (Law 2004:24). This confusion and sense of irritation can be used to productive means, as illustrated by MacLure (2006) writing on baroque methods in educational research. MacLure (2006:729) describes baroque methods as those that 'resist clarity, mastery and the single point of view, be radically uncertain about scale, boundaries and coherence, and favour movement and tension over structure and composure'. It is these very qualities toward open-endedness that make a baroque method 'productively irritating' to dominant modes of researching (MacLure 2006:729). However ultimately, and as noted by Law (2004:24), despite attempting moves toward the baroque, social enquiry falls between and includes both the romantic and baroque.

The two dimensions of assemblages: matter ↔ expression, ↕ de- and re-territorialisation

Though van Doorn (2011) uses the framework of assemblages to reconfigure the materiality of the digital as a collection of things (e.g. users, discourses, and media), assemblages within DeleuzoGuattarian ontology have a greater level of complexity than the mere assembling of parts (Buchanan 2015). Assemblages have two dimensions, or axis, as indicated in Figure 1. On one axis assemblages are shown to have two faces, having a material side (content), and an expressive side (DeLanda 2006:12). The content of assemblages relates to the material elements within an assemblage, whilst its expressive nature arises from its collective assemblage of enunciation (Deleuze and Guattari 2005:88). These enunciations include 'discourses, words, "meanings" and non-corporeal relations that link signifiers with effects' (Wise 2005:80). Deleuze and Guattari (2005:88) propose that enunciations have an affective quality in that they cause change to happen in the state of the world – they cause 'incorporeal transformations' (Deleuze and Guattari 2005:88). For example a sex-seeking profile is a mixture of digital material elements: images, site architecture, words, and language. However profiles also have an expressive component, being

that which is given off by the images and the implied meaning of the words used. Though this first division seemingly reintroduces a dichotomy, between things (content) and words (expression), Deleuze and Guattari (2005:88) maintain that the two are always in admixture.

Figure 1: The two dimensions of assemblages
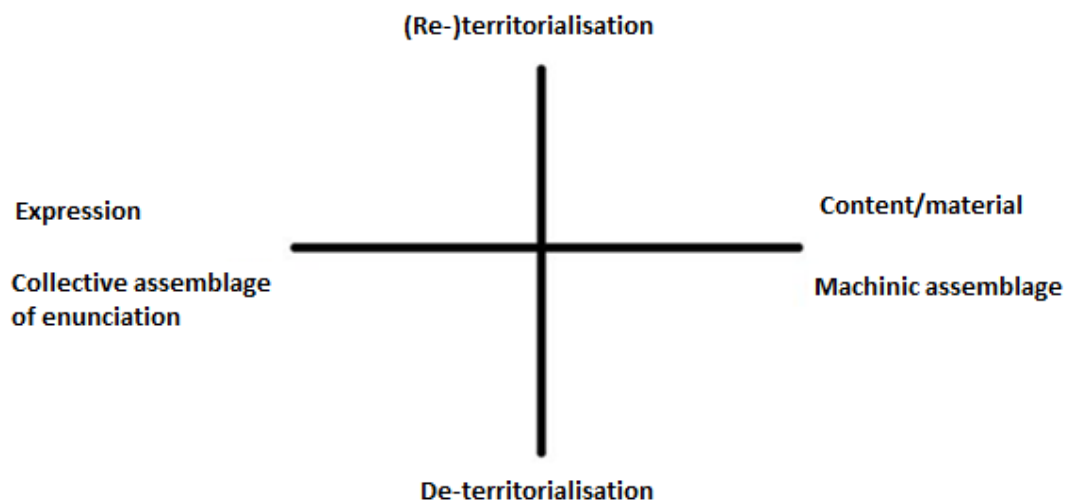
As indicated by Sellerberg (2012:38) in his master's thesis on the body online, the role of expression is rarely invoked in works citing Deleuze and Guattari. Furthermore both roles along the horizontal axis, content and expression, need to be taken into account in order to understand practices on the Internet (Sellerberg 2012:39). Expressive and material roles relate to one another in that machinic assemblages are productive of collective assemblages of enunciation (Sellerberg 2012:39). Body-media assemblages are productive of certain enunciations, whilst enunciations cause machinic assemblages to come to pass. For example 'no fats' (no fat people) or 'fems' (no feminine men) are examples of enunciations on profiles on mobile MSM "sex app" Grindr (Birnholtz et al. 2014). These enunciations were made by men as they went about seeking sexual partners and attempted to link up with the sexuality assemblages of other men. However these enunciations also have the power to result in machinic assemblages of men who may block profiles that make these statements, or take offence and engage in a terse exchange with the profile creator. However as Buchanan (2015:390) maintains, though content and expression intersects, they are independent of one another. This independence means that

although one implies and produces the other, there is no sense of causation between the two (Buchanan 2015:390). Continuing the above example, though 'no fats' and 'fems' is produced within Grindr sex-seeking assemblages, these enunciations are not the necessary outcome of such machinic assemblages – Harris (1997:59) found similar enunciations in personal advertisements over a decade ago.

Turning now to the other axis in Figure 1, assemblages are said to have re- and de-territorialised sides, with this reflecting the consistency of the assemblage. When an assemblage has a high internal homogeneity it is said to be territorialised, for example by sharpening the boundary region around a territory (DeLanda 2006:12). Through destabilising the assemblage altogether, de-territorialisation occurs (DeLanda 2006:12). However territorial assemblages are continually passing into other assemblages (Deleuze and Guattari 2005:325). These movements toward different territories mark the other inseparable nature of assemblages, through their continual de- and re-territorialisation (Deleuze and Guattari 2005:333). De-territorialisation is achieved through 'increasing or decreasing the intensity of certain states past a critical threshold' beyond which it cannot hold, or at least hold onto its current state (Bonta and Protevi 2006:78).

An example of this double movement of de- and re-territorialisation comes from the peculiar situation under contemporary capitalism where sexualities are increasingly becoming pluralised (de-territorialised). Through this plurality, sexualities are simultaneously made available to exploitation by corporations and sold back to people, thereby re-territorialising them as a marketable good (Braidotti 2006a:44). Both Aslinger (2010) and Light et al. (2008) highlight this commodification of sexuality in terms of the design of MSM websites PlanetOut and Gaydar respectively. LGBT identities were found to be packaged for mass consumption through the development of services that colonised different aspects of daily life e.g. Gaydar radio and the mobile app version of Gaydar (Light et al. 2008). Similarly Aslinger (2010:121) found that banner advertisements were introduced to the PlanetOut interface as the site became more professionalised, thereby merging consumer and sexuality assemblages.

In the case of sexuality, the initial de-territorialising moves brought about by capitalism are primarily relative, moving a system to a 'previously established but non-actualized virtual attractor' (Bonta and Protevi 2006:78). This means that sexuality diversifies, for example, but remains a sexuality that a human body has. Alternatively de-territorialisations can be absolute, leading to new 'patterns and thresholds' (Bonta and Protevi 2006:78). In order to further illustrate their contribution to this thesis, the following section applies assemblages and de-/re-territorialisation to digital venues, before moving on to some of Deleuze and Guattari's more esoteric concepts.

Applying assemblages and territorialisation to digital sexual practices

> We are misled *by considering any complicated machine as a single thing*; in truth it is a city or a society (Deleuze and Guattari 2000:285, original emphasis)

In this quote, we are asked to consider that those things usually assumed to be unitary, are indeed complex multiplicities. Specifically Deleuze and Guattari address our preconceptions that machines, in the mechanical sense, are wholes. From this perspective, Grindr or Twitter are not unitary artefacts, but arise out of the historical and technological processes that lead to their creation, in addition to those relations that sustain them in their use. Media as assemblages can therefore provide new ways into the study of digital practices. Sharma (2013:46) for example explored Twitter as an assemblage of digital material elements: of software, algorithms, networks, and affects. This led to a reconfiguring of race on Twitter as an assemblage and as an emergent force, rather than as a static representation of offline race in digital "space" (Sharma 2013:480). Similarly, the sexual practices I explore in this study could be said to be an assemblage of digital materiality; something which I address directly in Chapter eight.

The design and social construction of new media, alongside developments within "gay culture", form part of the historical process of assembling (DeLanda 2006:3). For example sex-seeking site Gaydar has a sexualised lineage as part of gay men's politics of visibility, and although the queerness of same-sex publics may have diminished, visibility still stratifies what a Gaydar-using body can do (see Mowlabocus 2010a).

These historical processes have territorialised the media in my study around particular functional identities, for example digital venues such as Grindr as sexual market places (Vernon 2010). However how technologies are used also comes to determine the assemblages they form. In later chapters I explore the numerous ways that MSM strategically manipulate media to create sexuality assemblages that subvert the norms of media spaces e.g. engaging in commercial sex in spaces that prohibit such activities (Chapter seven). Furthermore as Gudelunas' (2012a) study has shown, digital media such as Twitter, which are designed specifically for a mass mediated market, can and do enter into sexuality assemblages. This therefore lends credence to an approach that sees technologies as elements that can be plugged into (sexuality) assemblages to produce different functions (DeLanda 2006).

It is common within the digital sexuality literature to talk about the capacities and affordances stemming from the properties of media, for example the ability to write the self as allowing the capacity for anonymity (e.g. Cooper 2000; Ross 2005; Tikkanen and Ross 2000). However as DeLanda (2006) indicates, an assemblage's capacities are distinguishable from its properties. Properties are a closed list, with an entity's capacities being virtual and not given, only being unveiled in its affective interactions with other entities (DeLanda 2006:10). However to say that properties are virtual does not mean that they are not real, just that they are not yet actualised. Buchanan (2011:18) interprets the process of actualisation as being a shift of something sensual to that which comes to mind in the present – about experiencing something – rather than the usual connotation of a shift from the immaterial to the concrete. For example in terms of digital sexual practices, the sensual aesthetics of pornography are actualised in the profiles of MSM through the use of textual descriptions and image choices (Mowlabocus 2010b). Thinking through the virtual capacities of media is therefore important in understanding digital sexuality as assemblages of heterogeneous elements that cannot be known fully in advance of studying them.

As heterogeneous elements, social media such as Twitter can be inserted into different assemblages. The following examples of Tweets illustrate the formation of sex-seeking and commercial-sex assemblages respectively: 'anyone in Cardiff want

to meet up???' (Twitter, Tweet, 2013), 'Hung kinky versatile escort available in Swindon 01234567890[12]' (Twitter → Telephone, tweet, 2013). The ability of Twitter to insert itself into these different assemblages is related to the capacities that it generates within assemblages, which are different to its properties to allow users to 'broadcast themselves' (Twitter 2015). Consequently these capacities 'may go unexercised if no entity suitable for interaction is around' (DeLanda 2006:10). For example the communicative capacities of a Gaydar profile change when the user-creator logs off the system. However the profile has other capacities that affect those who click on it. Another user might masturbate to the profile pictures or write a message to the profile creator. Understanding the summation of these virtual capacities, whether actualised or not, leads to one of the more elusive of Deleuze and Guattari's (2000, 2005) concepts, that of the Body without Organs (BwO).

3.3.2 The Body without Organs (BwO)

> You never reach the Body without Organs, you can't reach it,
> you are forever attaining it, it is a limit. People ask, So what is
> this BwO?—But you're already on it, scurrying like a vermin,
> groping like a blind person, or running like a lunatic (Deleuze
> and Guattari 2005:150)

Here, in one of their more lucid accounts of the BwO, Deleuze and Guattari outline its nature as the limit of what a body can do. It forms out of the actual and possible connections that a body can have, and is therefore the summation of the engagements between human and non-human elements. The BwO is the virtual collection of potentiality making possible connections between matter, and is in this way productive (Ivinson and Renold 2013:372). This virtuality means that the BwO is always already there, 'you're already on it' (Deleuze and Guattari 2005:150). Even without conscious action the body is always interacting with the world – with gravity, air pressure, sound etc. However the BwO can be purposefully built and played with, through enacting de-territorialisations and disturbing the feedback loops that maintain the body (Bonta and Protevi 2006:63).

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[12] Fake telephone number used in place of user's personal details.

Digital media provide a means of de-territorialising the body from physical territories, through the telepresence of web-cameras, or freeing it from its territorialisation within particular sexual identities and practices (Ross 2005; Ross et al. 2005). However a too quick de-territorialisation of the BwO can leave it unable to reconnect with other assemblages (Malins 2004:90). As Deleuze and Guattari (2005:161) indicate, experimentation rather than complete annihilation of territories is the way to build the BwO and add to its virtual potentialities. Continuing the above example, experimenting with other sexualities on web-camera and Grindr add to the potential sexual intensities of the BwO – rather than doing away with a heterosexual identity altogether and taking on a gay one, which merely replaces one set of territories for another. The territories of the BwO are therefore always in flux, being remade with each assemblage the body forms (Fox 2012:72). The BwO and assemblages are closely related to another of Deleuze and Guattari's concepts, that of desire, because they affect the connections and (im)material configurations of the world.

3.3.3 Desire, schizoanalysis, and capitalism

Rather than desire being a lack, desire is viewed as a productive force within assemblages, as the 'material process of connection, registration and enjoyment of flows of matter and energy' (Bonta and Protevi 2006:76). Desire as a productive force stems from Deleuze and Guattari's general conceptual shift from exploring meaning, to production (Buchanan 2011; Gao 2013). This reconceptualization of desire as arising from connection is linked to the BwO, given that the BwO is the combination of all virtual and actual connections between assemblages. The BwO is therefore 'that which one desires and by which one desires' (Deleuze and Guattari 2005:165). Desire is central to Deleuze and Guattari's approach to mapping assemblages as 'desire is a machine... The order of desire is the order of *production*' (Deleuze and Guattari 2000:296, original emphasis). As a result, assemblages can be thought of as little desiring machines, composed of desire through their connective capacities. The process of mapping assemblages, also known as schizoanalysis, is therefore to discover the nature, formation, and functioning of these desiring machines (Deleuze and Guattari 2000:322).

The decision to adopt complexity frameworks, and enact digital cultures of connectivity through relational methods, was instrumental to the schizoanalytic undertaking of this thesis. Schizoanalysis has both positive and negative tasks that both undo and create new formations, be they social formations, research practices etc. (Ringrose 2015:397). As indicated above, the positive task of schizoanalysis is the discovery of desiring machines/assemblages (Ringrose 2015:396). The negative task is to destroy the dominant social order (Ringrose 2015:395), which in this thesis was the dominant humanist mode of researching MSM's digital sexual practices. By mapping out digital sexuality assemblages this thesis asked what affects they produced and what desires were cut off (Malins 2004:85) – the positive task. Furthermore by generating a series of maps of digital sexual practices from the standpoint of the material rather than the human, the current study contributed to the negative task of schizoanalysis.

Within contemporary capitalistic society one of the important forces in terms of desire is the vampiric effect of the institutions of the State, whereby innovation and social change are increasingly turned to capitalist production (Braidotti 2006a:44; Papadopoulos 2010:76). As indicated previously, capitalism proceeds through the decoding or de-territorialisation of flows. For example the morals behind sexual relationships are freed up, thereby opening up new sexual possibilities (Roffe 2010a:41). In this way, and as suggested by Vandenberghe (2008:877), capitalism is a network of networks and is therefore rhizomatic, colonising both the (social) world and itself. Being the archetype of connectivity, Buchanan (2007:para.29) suggests that the Internet is a 'model of realisation' of capitalism – meaning another way by which capitalism extracts surplus value (Deleuze and Guattari 2005:456). Capitalism turns these new (mechanised) connections, new desire flows, towards its own ends. Furthermore, Roffe (2010a:41) suggests that capitalism empties out the old relations that joined together sexual mores, for example, and imposes 'a law of general equivalence in the form of monetary value'. The result of these capitalist processes is that the production of desire therefore becomes territorialised around money.

This engagement with DeleuzoGuattarian insight into capitalism combined with observations in the field of the abundant instances in which capitalism deformed and

generated sexual desire. Therefore the second question posed of this study was produced in the intersection of theory and observations in the field, being: Does capitalism and commodification dam up, redirect, or indeed foster certain assemblages of sexual enunciation? And how is this achieved? In order to explore these specific relations of desire and capitalism, in Chapter seven I use the case study of digital commercial sex, though the deformation of desire by capitalism recurs throughout my empirical chapters.

If desire is thought of as a connective force, affect operates as a process of desire through the generation of intensities (Colman 2010:13). Here affect is defined as the capacity to generate change, to affect or be affected, rather than being in reference to purely emotional responses (Blackman and Venn 2010:9). One of the central tenants of post human approaches is that affect is dispersed amongst human and non-human entities (Fox and Alldred 2015b). From this perspective, the digital media and technologies explored in this study were agentic in the sense that they produced affects, some of which related to human bodies, whilst others did not. For example men engaged in cybersex positioned cameras in order to intentionally obscure their faces and therefore enacted agency over the web-camera. Alternatively, with fixed web-cameras, this required performer-users to change their body position in relation to the camera's position, and in doing so the camera came to affect the performer-users body. Within a framework of sexuality as assemblage, the flattening out of affect to more-than-human others therefore implicates them as sites for the production of sexual intensities, as much as fantasy and the physical body (Fox and Alldred 2013).

Within a framework where sexuality is an assemblage, sexuality becomes the flow of affect (Fox and Alldred 2013:776). However the de- and re-territorialisation of assemblages influences the flow of sexual affect. In the first instance flows of sexual affect are de-territorialised, being ever present and leading to unforeseen expressions, producing 'any and all capacities in bodies' (Fox and Alldred 2013:776). It is these de-territorialised affects that make assemblages unique, their singularising force. In the opposite direction however, Fox and Alldred (2013:776) attribute the re-territorialisation of sexuality to 'aggregative affects'. These aggregations refer to

static formations, for example sexual identities, institutions, and other forms of social and material relation that lead to blockages and redirections of affect. As an example, Chapter seven explores the aggregations of sexual identity labels produced by capitalism in order to redirect and harnesses sexual affect to extract surplus value. In order to further understand this de- and re-territorialisation of affect, the following section explores further what these aggregating (molar) and singularising (molecular) forces are in DeleuzoGuattarian ontology.

3.3.4 The aggregative and the singular; or the molar and molecular

Throughout DeleuzoGuattarian ontology the molar and molecular, or what Fox and Alldred (2015b:402) refer to as the aggregative and singular, are juxtaposed. In the previous section the aggregative and singular were attributed to different movements of sexual affect through assemblages. As Deleuze and Guattari's (2000, 2005) oeuvre is about productive connection, the summation of these molar and molecular movements come together to form "lines". Life is therefore about the production of different lines, such that 'we are made of lines' (Deleuze and Guattari 2005:194). However the types of movement, molar or molecular, when added together come to produce different types of line, with Deleuze and Guattari (2005) introducing three types: molar, molecular, and lines of flight.

Molar lines are those lines that are composed of segmented movements, being built of large aggregates, and as such capture affects. For example sexual identities capture affective flows and direct them into specific object choices and bodily regions i.e. erogenous zones (Fox and Alldred 2013; Potts 2002). Individuals occupy these aggregates, or pass from one aggregate to the next, moving along the molar line (Deleuze 1992). For example by moving between different venues, MSM may take on different identities depending on the norms of the venue. On a BDSM website the user adopts a niche sexual identity, but on a social network site they may lose these extreme tastes in favour of a more normative identity. Though these aggregations could be viewed as negative through their limiting potential, Deleuze and Guattari (2005:195) stress that life is filled with aggregates. A level of aggregation is needed in order to retain some territorialisation, and therefore some functional form.

The molecular is a difference of speed rather than scale, moving in between and through the molar. This line has the potential to move a system into a new set of relations (Fox and Alldred 2015b:402). Like molar lines, molecular lines are segmented, however these segments are micro movements towards de-territorialisation (Deleuze and Guattari 2005:196). The molecular introduces 'a current of suppleness', whilst the molar introduces 'a point of rigidity' (Deleuze and Guattari 2005:196). The molecular line therefore elicits supple deviations or wanderings that are either re-territorialised, or burst into lines of flight. For example digital media can lead to molecular becomings that take men away from the rigid segmentarity of sexual identities e.g. heterosexually identifying men engaging in same-sex cybersex. However the fate of molecular lines of segmentarity are mixed. Some lines are re-captured onto old segments and old identities, whilst others traverse onto new lines. Where these lines break free of aggregates they become 'lines of flight' (Bonta and Protevi 2006:106).

Lines of flight reflect complete de-territorialising movements and occur in the breakage of other lines, leading to the escape of affect. Without the bounding effects of segments, both supple and rigid, affect moves into different sets of relations and new assemblages. For example in Jonsson et al.'s (2014) study with female sex workers, one of the participants indicated that without the Internet they would not have engaged in sex work. In addition to generating new machinic assemblages (e.g. that have the capacity for commercial sex), lines of flight can therefore also generate new assemblages of enunciation. As I highlight in Chapter seven, digital media can lead to novel sexual enunciations, for example men propositioning other men online – something unlikely in public daily life. However if a line of flight becomes locked back onto a segment it can become even more rigid and lacking in diversity (Deleuze and Guattari 2005:503). For example in digital sex-seeking, the capture of affect leads to the ossification of sexuality into fixed identities or patterns of sexual behaviour – a case study of compulsivity is explored in greater detail in Chapter eight.

Sexual affects and the lines of flight of MSM's digital sexual practices are also subject to capture within research. Where studies approach digital sexual practices from a medical perspective (see Liau et al. 2006 for a meta-analysis of such studies), this has

led to the marginalisation of MSM on the Internet and digital media as being at greater risk of acquiring sexually transmitted infections (Holmes and O'Byrne 2010). Furthermore, the literature into MSM'S digital sexual practices is invested in a particular mode of viewing these practices that has the tendency to suppress 'the unstable, plural and dynamic nature of things by emphasising one of its aspects or dimensions' (Mansfield 2000:146). Counter to this, Deleuze and Guattari (2000, 2005) propose an analysis based on mapping the complexity of affect flows, by becoming immersed in their connections – schizoanalysis. So far this chapter has introduced the main DeleuzoGuattarian concepts used in this study. The remaining sections chart the movement of their ontology into an epistemology, by exploring a DeleuzoGuattarian approach to social research, thereby leading into a discussion of the methodology underpinning this study.

3.4 A DeleuzoGuattarian (social) science

3.4.1 Introducing the Royal and minor mode

As the preceding discussion outlined, Deleuze and Guattari's varied body of work is associated with a shift in ontology, from binarisms (arborescence) to that of assemblages (rhizomatics); from static being to thinking of the world as an endless becoming. In this section I explore the translation of DeleuzoGuattarian ontology into an epistemology, whilst its further translation into research methods and practice is dealt with in Chapter four. Conducting social research through/with Deleuze and Guattari is not a new endeavour. The contributors to Coleman and Ringrose's (2013a) edited collection of Deleuzian inspired research methodologies have offered a tentative glimpse of what such a sociology may look like. Here it was suggested that the concepts of assemblages, becoming, affect, and relationality were 'incredibly suggestive for social science research' by breaking the divide between theory and practice (Coleman and Ringrose 2013b:2). Along similar lines, Fox and Alldred (2015b) give an overview of new materialist methodologies, based on similar principles of assemblages and the de-privileging of human agency. However across the wider literature drawing on DeleuzoGuattarian theory there is a tendency to apply this conceptual framework without it affecting research methods. For example

in Bogard's (1998) paper outlining the scope for a DeleuzoGuattarian sociology, the author adopts the terminology of Deleuze and Guattari, however stops short of this becoming an alternative epistemological approach.

The abundance of *post hoc* applications of Deleuzianisms such as assemblages, has lead Brown (2010:107) to rhetorically ask what the status of Deleuzian inspired social science is or should be:

> Is it constituted merely by the borrowing of a set of terms that although they have précised philosophical value, function only in a purely arbitrary and descriptive sense when mobilized in relation to social scientific objects?

Rather than being critical of the lack of Deleuzian methods as Brown is, Buchanan (2015:382) critiques the uptake of Deleuzian ontologies as a catchall term for complexity. Buchanan (2015:382) argues that the power of Deleuze and Guattari is their attention to Power – for example de- and re-territorialisations are actualisations of Power (Colebrook 2010:216). So what does a DeleuzoGuattarian ontology look like applied to methodology? Or as Brown (2010:112) puts it, 'how to stage a social scientific encounter with Deleuze'? Renold and Mellor (2013:28) indicate that a methodology inspired by Deleuze and Guattari pushes researchers 'to attend to a specific kind of empiricism, a wild empiricism that can see and capture the unstableness of everyday life'. The proceeding discussion therefore focuses on one particular aspect of Deleuze and Guattari's (2005) work in relation to how science gets "done", and how researchers can conduct themselves in relation to a wild empiricism. Specifically, my discussion returns to the two types of scientific practice I opened this chapter with, the Royal and minor sciences.

3.4.2 Defining the Royal and minor mode

Though there are numerous differences between the Royal and minor, the main point of departure can best be approached by mapping them onto the distinction between the aggregative and the singular defined earlier. The aggregative and the singular reflect different speeds and intensities (Fox and Alldred 2015b), which translates into research as a focus on meaning and affect (Colebrook 2005:193-194), or the derived and descriptive (Flaxman 2005:176), respectively. Royal sciences

relate to the creation and affirmation of theories (axioms), either those already in existence or those which result from research (Deleuze and Guattari 2005:373). However rather than theory itself being a mark of Royal science, it is the process by which this mode reproduces and maintains the stability of the things it explores, through the production of universal laws (Deleuze and Guattari 2005:372). As will shortly be discussed, the Royal science approach to studying digital sexual practices takes as its "object" of study unitary settings and venues. This mode of science is therefore territorialising (Malatino 2014:138) and aggregative of the sexual affectivity of MSM's digital sexual practices.

Minor science relates to singularities or singular phenomenon, exploring them as fluids rather than as a series of solids interacting (Deleuze and Guattari 2005:372). Singularities represent changes in speed, direction, and the behaviours of a system (Massumi 1992). As such, investigating singular events involves asking what is occurring in a given situation, '*the hows and whys of transformations'* (Malatino 2014:139, original emphasis). In order to apprehend this, a minor methodology becomes one of following the flows. This is in contrast to the Royal approach based on reproduction, which itself implies a 'fixed point of *view* that is external to what is reproduced: watching the flow from the bank' (Deleuze and Guattari 2005:372, original emphasis). The minor is therefore a practice of becoming, heterogeneity, and complexity. It places variables into continuous variation rather than stabilising them and turning them into universal constants (Deleuze and Guattari 2005:372).

The dualism of the Royal and minor seems at odds with a DeleuzoGuattarian framework that dissolves such dualisms. Rather than being in opposition, these two sciences, as with the molar and molecular lines they reflect, subsist in one another and are always in admixture (Deleuze and Guattari 2005:202). Royal science imposes itself on minor science and in doing so extracts from it its necessary vitality (Deleuze and Guattari 2005:362). The Royal sciences draw into themselves the molecular movements and de-territorialisations of the minor in order to maintain themselves (Papadopoulos 2010:79). However it is because of its molecularity and de-territorialising effects that minor science can exert pressure on Royal science (Deleuze and Guattari 2005:362). For example minor science can have an element of

activism, shifting systems out of their steady states, not necessarily by giving voice to the subjects concerned but by exorcising previous scientific enunciations (Guattari 2009:215). The potential for destabilising the dominant mode of thought and practice therefore makes the minor mode well suited to the negative task of schizoanalysis discussed earlier.

In furthering the position of the Royal and minor as co-existing, Deleuze and Guattari (2005:372) reiterate that these two sciences are 'Not better, just different'. A DeleuzoGuattarian science is therefore not the replacement of knowledge with better knowledge, but the generation of different forms of knowledge. The minor maps the more-than-human materiality of the world, those forces that have been elided by the Royal, whilst the Royal traces its structure and structuring devices (Martin and Kamberelis 2013:671). However '*the tracing should always be put back on the map*' (Deleuze and Guattari 2005:13, original emphasis), meaning the Royal sciences should be combined with the minor. Together they generate 'zones of implosion' that collapse the boundaries between the human and non-human (Papadopoulos 2010:80). Having outlined the Royal and minor in general terms, in the following section I apply this epistemological framework directly to the study of digital sexual practices, with two aims. Firstly, I map the Royal and minor onto MSM's digital sexuality research in order to illustrate its Royal tendencies. Secondly, I point toward the potential of a minor mode for a 'radical decentering of scientific enunciation' (Guattari 2009:215).

3.5 The Royal and minor mode within the MSM's digital sexuality literature

Across the literature into the digital sexual practices of MSM there is a strong sense of loyalty to Royal science, which reveals itself in a number of ways. Extraction of constants from variation is reflected in the aggregation of phenomenon into laws that fix the flux of variation in sexual scenes. For example Mowlabocus (2006, 2010a) constructed a discursive framework that highlighted the practices of embodiment, representation, and consumption, as suffusing the digital sexual practices of gay men – cybercarnality. Mowlabocus (2006:14) states that this discursive framework was

not a meta-narrative that 'collapses the multi-faceted complexities of contemporary homosexuality into a reductive, singular frame'. However despite this claim, cybercarnality fixed the variability of these spaces between the pillars of Royal science, being the human body and representation. The generation of this particular discursive framework may in part be due to the approach which Mowlabocus (2006) takes to digital sexual materiality. As the author indicates, his research originated from within the humanities, which it was suggested views the Internet as a space where user generated texts are displayed (Mowlabocus 2006:15). Dominant research practice is then to "read" these texts for their underlying meaning, and in doing so this reproduces and reinforces representational thinking (Coleman 2013a:4).

In addition to examples of theory development, *a priori* theories of sexuality are used to investigate the digital sexual practices of MSM. Dowsett et al. (2008), in their study of sex-seeking profiles on barebacking websites, used masculinity as a framework for understanding their research materials. As they indicate, 'masculinity emerged as a potentially important theme. The first two authors then proceeded to refine those masculinity-related themes, re-sorting and refining them as we engaged with the masculinity literature and its ideas' (Dowsett et al. 2008:127). Masculinity therefore formed the *a priori* framework through which research materials passed, such that their study explored how "masculine like" the sex-seeking profiles were.

As I highlighted in Chapter two, a large strand of the literature exploring digital sexual practices uses quantitative analysis drawing on surveys of digital media use. Elsewhere I caution against the treatment of quantitative methods as outright markers of Royal approaches (Thomas 2016). Deleuze and Guattari (2005) themselves are careful not to make essentialist claims regarding the nature of things, numbers included, and numbers are not the hallmark of dominance. What is done with numbers, and what numbers do, is more important than what the use of these numbers represents (Deleuze and Guattari 2005:389). The Royal inclination within quantitative studies is however reflected through their use of measurements to mark digital sexuality with increments, segmenting it, which is then put to service in the construction of models of digital sexuality. For example Daneback and Månsson (2013) have written prolifically on the topic of Internet sexuality, adopting both

qualitative and quantitative research methods. In the quantitative analyses from their collective body of work, regressions were used to predict the effects of various independent variables on: fulfilment of desire (Daneback et al. 2013), odds of meeting online partners offline (Daneback et al. 2007), odds of having cybersex (Daneback et al. 2005), odds of sexual compulsivity (Ross et al. 2012), to name a few. These models rely on stability, the identical, and the constant, therefore variables such as sexual orientation are manifest and reported in these models as being time-invariant.

The Royal sciences are a process of setting and defining limits (Malatino 2014:138), constantly re-territorialising around a point of view (Deleuze and Guattari 2005:372). In research into MSM's digital sexual practices this point of view becomes a single point, a single technological artefact or practice. For example research has focused on men's profiles on sex-seeking websites (e.g. Gudelunas 2005; Jones 2009b, 2012; Sowell and Phillips 2010), gay Internet chat (e.g. Campbell 2004; Slater 1998), and mobile applications (e.g. Blackwell et al. 2015; Rice et al. 2012; Roth 2014). This approach of studying single sites in isolation may be due to the difficulties in trying to apprehend instability and ephemerality using methods associated with constraining mess (Law 2004). As Mowlabocus (2006:11) states at the start of his thesis, gay cyberspaces 'are too numerous to identify beyond the most cursory of categorisations… And even then, such categorisations become unstable almost immediately'. Rather than attempt to use methods to make sense of the mess of MSM's digital sexual practices, a post human minor method follows the flow of 'mess, confusion and relative disorder' (Law 2004:2).

There are examples of research that embraces the relationality of contemporary media contexts, outlined in Chapter two, however these represent a minority of cases. An exemplar of a relational approach is the work of Banks (2013, 2015), though not within the field of digital sexuality research. In Banks' (2013) thesis and subsequent writing (Banks 2015), the author developed an object-orientated approach to the self. Websites, online games, body parts, and other elements, were found to be networked together in the formation of phenomenon, such as identities and "selves". In order to empirically analyse relations, Banks (2013, 2015) deployed

methods from Social Network Analysis (SNA) in order to generate network diagrams, and then used graphing techniques to explore structure within the resultant networks. My study used similar methods, however unlike Banks, my approach did not seek to explore the self as a network, but to use network methods to explore connectivity and flows of materiality as they composed MSM's digital sexual practices.

Predominantly, where studies have explored the complex patterns of MSM's digital media use and practices, they have taken the human-user as the central point, from which media radiate through use. From the human, various means of elicitation have been deployed, including: interviews (e.g. Mowlabocus 2006, 2010a), surveys (e.g. Allman et al. 2012; Bolding et al. 2007; Daneback et al. 2008), focus groups (e.g. Gudelunas 2012a), and ethnography (e.g. Gray 2009). For example, as highlighted previously, Gudelunas' (2012a:359) study of MSM's use of social networks found that rather than discrete entities, profiles were part of a network of media. However within Gudelunas' study itself, this complexity of media was not enacted; focus groups were used to gain rich accounts of MSM reported uses, rather than explore the materials and linkages themselves.

Methods of elicitation have been used to inventory MSM's digital sexual practices, and in doing so they provide a broad overview of the scale of different practices. As an example, Daneback et al.'s (2008:121) survey comparing online sexual activities between men and women of different sexualities, led to the following conclusion:

> Compared to heterosexual men, a greater proportion of bisexual men used the Internet to stay in contact with a love/sex partner, to read erotic texts, to visit contact sites, to reply to sex ads and to chat with people with the same interests

Statements such as this have particular gravitas within the Royal sciences, being put to service in the operation of the State and the further striation of sexual spaces. The replication of striations is illustrated in the following quote, from the same publication:

> [By] identifying how the activities and reasons are different and similar for particular subgroups might help professionals working with these groups to understand their motives to use

the Internet for sexually related purposes (Daneback et al.
2008:126)

Here the State apparatus, through regimes of public health, are maintained by the findings from Royal science. As Grov et al. (2014:403) highlight in their review of research into MSM's use of the Internet, many of the research questions asked of such practices have been, and remain to be, grounded in models of disease prevention. For example though the purpose of such knowledge production in Daneback et al.'s (2008) study was greater understanding of motives for engaging in digital sexual practices, the implied use of this understanding was in the monitoring and control of MSM's sexualities.

Working through a DeleuzoGuattarian framework helps illustrate that the literature into digital sexual practices is invested within particular mode of reading such practices. On its own, a literature review may have suggested empirical gaps, for example a deficit in research into rural MSM's engagement in digital practices (Kennedy 2010). However working the literature through DeleuzoGuattarian theory highlights its aggregation through a strong reliance on representation and meaning as ways of knowing digital sexual practices. For example Shaw (1997), in his seminal research into gay sexuality on Internet Relay Chat (IRC), and Campbell (2004) studying the same venues almost a decade later, both explore the representation of the body online. In addition, both researchers elucidate the *meaning* that IRC has for the participants in their studies. Shaw (1997) used interviews in order to gain insight into the uses and gratifications of gay men's IRC. Similarly Campbell (2004), through interviews, illustrates IRC as meaningful communities of action to the men in his study. In acknowledging these aggregations, a more-than-representational approach opened up spaces for the generation of knowledge that lead to productive difference, rather than plugging my empirical materials into the same logics.

In comparison to a focus on meaning, the more-than-representational approach I adopted in this thesis helped to apprehend the virtuality that exists alongside the material and discursive aspects of digital sexual practices – see Section 3.2. As an example, in Chapter eight, a more-than-representational approach generates a different reading of a cybersex performance involving intravenous drug use. Through

a Royal reading based on decoding the space in terms of masculinity, anthropocentric sexuality, and a search for meaning, the performance would have remained relatively silent. The primarily aesthetic qualities of the performance elide such identitarian logics. Instead, the multimodality of moving images, sounds and text, combined to generate affective capacities that sat outside of dominant systems of interpretation. These affective qualities, inherent even in language (Lecercle 2002), were rendered available to me through a minor mode. In order to further illustrate this potentially different reading, in Chapter six I compare the Royal and minor approach to studying a single venue for MSM sex-seeking. In comparing the Royal and minor directly, this highlights aggregations as well as molecular movements and lines of analytical flight. In addition to these theoretically founded reasons for working through a minor mode, the literature highlights that digital practices themselves are suited to a minor mode.

As already indicated by Gudelunas (2012a:359), MSM's use of digital media was found to form part of a wider ecology or network of sexual practices. Furthermore in Jones' (2009a) work exploring new media usage, the author adopted the term inter-activity to refer to the simultaneous activities that people engage in whilst using new media i.e. chatting to a prospective sex partner whilst downloading music. The author uses inter-activity over multi-tasking as it implies more than doing lots of tasks, suggesting instead the ways that 'multiple activities can flow together and affect one another' (Jones 2009a:16). Minor science is inclined to follow these flows of desire/energy/matter etc. through inter-active practice, incorporating its wild elements into the research process whilst allowing them to retain some of their unconstrained nature. In following flows, Roffe (2010b:190) indicates that the minor scientist stays close to the movement of events themselves. It is the distinction between following and reproduction which opened this chapter that formed the main departure point I used to turn post human relational ontologies into methodology. Following was instantiated in research practice through what Deleuze and Guattari (2005:12) refer to as cartography, or mapping, and it is this methodological application of their onto→epistemology that I address in the final section of this chapter.

3.6 Mapping as a minor mode within the current study

In this section I outline the practice of mapping as an application of a minor mode. Deleuze and Guattari (2005:12) juxtapose the process of mapping with that of tracing, with these relating to the minor and Royal respectively. The process of tracing is linked to binary logic, and implies that events and research are independent, with the (social) scientific enterprise being the creation of a copy of events (Deleuze and Guattari 2005:12). Deleuzian mapping on the other hand is about the discovery of new worlds, of following the unknown (Corner 1999:214). Maps have an affective quality, having the 'capacity to reformulate what already exists' in the creation of something new (Corner 1999:214). Within my study mapping and following were realised in methodological practice through the application of a networked sensibility (Markham 2012; Markham and Lindgren 2014). Such a perspective encourages 'sensitivity to movement, connection, and serendipity, both in the phenomenon and in the researcher's relationship to this flow' (Markham and Lindgren 2014:11). This sensibility led to the deployment of different visualisations and analyses – explored in greater detail in the next chapter. These visual renderings each add different laminations or layers to the phenomenon under study (Markham 2012; Markham and Lindgren 2014), and therefore different points of entry into MSM's digital sexual practices.

Visual renderings were used to map out the machinic and enunciative components of the digital sexual assemblages of MSM (Chapters five and six). Here the focus was on destabilising the tendency of the Royal mode to study single sexual venues in isolation. Furthermore, the resultant network-assemblage maps were intended to minor the anthropocentrism inherent in approaches that follow the humans e.g. Gudelunas (2012a). By following the linkages between machinic contents and the relational aspects of sexual enunciations, these maps drew inspiration from ANT in following the actors (Latour 2005) – in this case the material-semiotic elements of digital assemblages. ANT draws attention to the processional nature of socio-materiality (Muller 2015:30), by treating materiality and entities as a set of relational effects (Law 2004:157). As an application of ANT, Markham and Lindgren (2014:11)

indicate that a network sensibility is well suited to the exploration of contemporary media contexts. The fluidity of the network sensibility helps to account for complex ecologies of shifting global-localisation, connectivity, and the boundlessness of new media contexts (Markham and Lindgren 2014:10). Along similar lines, Latour et al. (2012:612) suggest that the advent of digital databases, such as profile sites, mean that the common experience of reading these databases involves exploring the network within which they sit. They therefore advocate moving through these networks as an alternative to static points of view (Latour et al. 2012).

One of the effects of ANT and other post human/new materialist ontologies is that they flatten out ontological differences (DeLanda 2013:51), including subjectivity (Blackman et al. 2008:11). The counter-effect of this flattening is the extension of subjectivity beyond the human (Halewood 2005). However as my study focused on the digital materiality of MSM's sexual practices, I took to heart Braidotti's (2013:171) claim that the proper subject of the humanities is not the human. Rather than being an omission, the lack of human subjectivity within my network-assemblage maps was an intentional effect in the creation of different ways of understanding the *materiality* of MSM's digital sexual practices, away from the 'empire of humanist Man' (Braidotti 2013:127). As highlighted in the introduction (Chapter one), an additional benefit of the network sensibility deployed in the first set of maps was that ANT, upon which this sensibility draws, provides a more 'concrete conceptual and methodological apparatus' for empirical work, when compared to assemblages (Muller 2015:31).

The second approach to mapping, developed in Chapter seven, used the framework of assemblages to explore MSM's digital commercial sex. As I indicated in the discussion of desire, cartographic practices were used to map desire production through digital sexual assemblages. Mapping desire production called for a focus on the different ways in which digital media and technologies entered into sexuality assemblages – the different machinic contents and enunciations that these form. However desire within capitalism takes a peculiar form, caught in a double pull between its singularity, through choice, and its aggregation, through the market (Guattari 2009:43). Furthermore, capitalism itself remains a formidable desiring-

machine, controlling flows and connections of money, manpower, production, and new markets (Guattari 2009:43). The mapping of assemblages in Chapter seven was therefore attentive to the ways in which flows of sexual affect are attenuated by capitalism. By exploring commercial sex assemblages under capitalism, I address Bernstein's (2007a:188) call for sex work research to account for the 'economic and cultural currents' that such practices are situated in, rather than regarding them as something apart from the normal economic sphere.

In the third and final mapping exercise in Chapter eight, I explore the instantiations of sexuality within the materiality of MSM's digital practices, which I diagram using Guattari's (2006, 2013) schizoanalytic model for exploring enunciative assemblages. The specificities of this model are outlined in detail in Chapter eight, however its main value was for exploring the socio-technical aspects of digital sexual practices, whilst retaining as much complexity as possible. In brief, Guattari's (2006, 2013) diagram is based on four domains, each of which relates to a different aspect of an assemblage: its material elements, the experiences of embodied subjectivity it generates, the aesthetics it draws on, and the systems of rules that govern the flows of desire-matter through the assemblage (Watson 2012:306). In the final map in Chapter eight I therefore draw on all the materials generated as part of this study, including the visualisations and maps in the chapters proceeding it, in order to explore digital sexuality as traversing all four of these domains (Watson 2015).

In addition to drawing attention to the more-than-representational aesthetics of events, the process of mapping out assemblages through a network sensibility also had an ethical dimension (Smith 2007). This is ethical in the sense that it generates a set of 'facilitative rules' for how assemblages function and what they produce (Smith 2007:67). Such an ethical position was important to adopt in the current study of MSM's digital sexual practices given that the area of sexuality research is heavily monitored and suffused with moral assessments. Chapter two drew attention to the entrenchment of digital sexuality research within frameworks of health promotion and risk, leading to digital media use for sex-seeking as being deemed high risk. Smith (2007:66) indicates that morality forms a set of 'constraining rules' that judges actions and intentions by some universal value. As such, the moral is synonymous

with the Royal approach, with both seeking to impose and thereby reproduce universal laws. In generating "maps" I attempted to replace the 'transcendent moral opposition' (Smith 2007:67) between good and bad digital sexuality, by assessing the assemblage of bodies and digital media in terms of what enunciations and transformations they may enable or block (Malins 2004:84).

3.7 Summary: Conducting digital sexuality research with/though post humanism

In this chapter I summarised the theoretical position adopted in this study. Firstly I introduced the conceptual apparatus of Deleuze and Guattari (2000, 2005), whose main point of departure is an alternative ontology based on assemblages of material and enunciative elements. In addition to providing definitions for the key DeleuzoGuattarian concepts (assemblages, de- and re-territorialisation, desire, the molar/molecular) I applied these to examples of MSM's digital sexual practices in order to show their utility in understanding such practices.

In the second half of this chapter I illustrated how the ontology of assemblages could be translated into an epistemological approach for conducting social science research. Deleuze and Guattari's (2005) approach to science was explored in general terms, as a difference between a mode of research through aggregation, and one of singularity and complexity. This framework was then applied to the literature into MSM's digital sexual practices. In doing so I sought to illustrate the dominance of particular ways of studying the digital sexual practices of MSM.

To sum up, the extant literature regarding these sexual practices is anthropocentric, reproducing theory in order to tame the "subjects" of research. Masculinity, for example, is used to trace the look and feel of sex-seeking websites, thereby reproducing itself. Furthermore the Royal mode of researching MSM's digital sexual practices was found to limit itself to single venues in isolation, for example sex-seeking profiles on websites. My discussion linked this particularly aggregative view of MSM's digital sexual practices to a mode of thought that takes the world to be a series of unitary objects that interact, rather than an unstable constantly interacting

system – an assemblage. This chapter therefore mapped out my main research interest in this study, being to challenge dominant ways of researching MSM's digital sexual practices.

Juxtaposed with the Royal approach to social research, I have advocated a minor mode as one more sensitive to following flows of sexual affect that compose digital sexual practices. Fox and Alldred (2015b:408), in their review of new materialist methodologies, have suggested that new materialism – synonymous with certain post human perspectives – shifts the focus of data collection from ''humanistic' objectives of researching experience, beliefs and reflections'. Post humanism therefore made a sensible choice when attempting to intervene in the Royal knowledge of MSM's digital sexual practices, by opening up the field of study to its more-than-human elements. Furthermore, a minor mode meant that rather than generating trans-historical universal laws about digital sexual practices, this study acknowledged the particularly curious position that MSM's digital sexual practices find themselves within contemporary capitalism.

The minor mode was operationalised through the deployment of a 'networked sensibility' (Markham 2012; Markham and Lindgren 2014). This sensibility did not prescribe particular methods of data collection, but was open to a variety of qualitative and quantitative methods in mapping out assemblages. By creating maps, Markham and Lindgren (2014) indicate that this allows the constitution of a complex understanding of events to emerge. A network sensibility mobilises ANT as a way of analysing the relationality between elements. It has been suggested that ANT is a more readily operationable application of assemblages in methods (Muller 2015).

I use the term network-assemblage as a portmanteau to refer to the framework underpinning this study, which incorporates elements from assemblage theory and ANT – to bring them into temporary dialogue. Network-assemblage is used to encapsulate the purposeful assemblage of material-semiotic elements and bodies in the production of sexual affects, which none-the-less arose from the linkage of media – the manifestation of which is a network.

Research questions

Rather than reflecting better forms of knowledge, a minor mode is a different way of apprehending the world. The empirical chapters each address this difference by focusing on research interests as they emerged from my engagement with MSM's practices, and the theory outlined in this chapter. As a summary, my research questions are outlined below in the order that they will be addressed in the proceeding chapters:

(1) <u>How can the materiality of MSM's digital sexual practices be researched through post humanism and a minor mode? And what does this different perspective bring to the study of these practices, and the practices themselves?</u> (Chapter five and six)

(2) <u>Does capitalism and commodification dam up, redirect, or indeed foster certain forms of sexual enunciation? And if so how?</u> (Chapter seven)

(3) <u>What forms does sexuality take as part of the materiality of MSM's digital sexual practices?</u> (Chapter eight)

In mapping replies to these questions, each chapter destabilises the Royal production of knowledge of such practices, and contributes to the negative task of schizoanalysis (Ringrose 2015:395). The first question addresses the overarching research aim of my study, to research the materiality of MSM's digital sexual practices differently through the deployment of a network-assemblage framework. Just as the research questions regarding capitalism and sexuality formed from the interaction between my fieldwork and DeleuzoGuattarian theory, Chapters seven and eight both form offshoots of the main methodological contribution of this thesis. Having outlined the ontological and epistemological position of this study, the following chapter explores the methods I adopted under the guise of a minor mode.

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Chapter 4 – Following flows: A minor method

In this chapter I provide an overview of the methods deployed in my study, as I translated a minor mode into research design. In summary I used online (or digital) ethnographic methods (Hine 2000) focusing on user-generated content. Furthermore, I adopted a more flexible approach to the field in terms of movement and flows, rather than as a bounded object or situation (Markham 2013:438). Hine (2008) defines such a mobile digital ethnography as a networked or connective approach. Both DeleuzoGuattarian theory and my unfolding encounters with digital materiality came to shape my research design. Hammersley and Atkinson (1983:29) note that 'research always begins with some problem or set of issues'. Despite the ever-evolving state of my study, the foreshadowed problem remained the pursuit of different forms of knowledge about the materiality of MSM's digital sexual practices. Rather than being the only way of achieving different research outcomes, the following chapter illustrates one possible actualisation of difference, through the drift of post human theory into methods.

In their paper broaching new materialist methods in social enquiry, Fox and Alldred (2015a, 2015b) use assemblages as a way of approaching research design. Their conceptualisation of research assemblages can be used as a way of viewing the machinic production of knowledge from events through research (Fox and Alldred 2015a). It was Fox and Alldred's (2015a) hope that studies could be forward engineered to achieve more micro-political goals. These micro-political – or ethico-political – goals include the production of 'capacities in researchers, data and the events studied' (Fox and Alldred 2015a:para.6.9). Within the current study the ethico-political goal was to undertake research through a minor mode, in order to see what different affects this produced in the events under study – as framed in the overarching research objective (see end of Chapter two). In the following chapter I use the research event assemblage as a way to structure a discussion of methods. In doing so I provide a rationale for how the configuration of elements within my research assemblage met the ethico-political goal to conduct digital sexuality research differently.

The following chapter attends to, (1) a description of each element in the research-assemblage, (2) the affective flows across these elements, and (3) the micro-politics that these assemblages produced – being what happens when an event is researched (Fox and Alldred 2015a, 2015b). The technical details for the research event assemblage are here recounted, split into several elements, or machines (Fox and Alldred 2015a:para.3.2), including those relating to: the field, data gathering, data extraction, analysis, and presentation. Furthermore, part of the ensuing discussion addresses the ethical decisions made, in light of the particular challenges when researching sex and the Internet (Binik et al. 1999). However rather than being discrete parts that combine to form this study, each machine was entangled with all others. Though the first section deals with the field of study, defining the field set the methods etc.

4.1 The field machine: Craigslist, Cam4, and Grindr

> When people are not interacting face-to-face, but only via chat rooms or by creating and reading Web pages, where is the ethnographer to put his or her feet? (Garcia et al. 2009:54)

Though this question may represent an impasse to a discussion of the field in digital research, Garcia et al. pose it rhetorically; they themselves take the opinion that there is one social world of which mediated and non-mediated modes of communication are a part. Garcia et al. (2009:54) go on to suggest that the ethnographic field should be defined by the research topic rather than picking and focusing on specific mode arbitrarily i.e. online/offline, digital/analogue. Several other researchers in the field of Internet studies have shared this position regarding the choice of field site (e.g. Boellstorff et al. 2012; Hine 2000; Miller and Slater 2000; Orgad 2009). However as highlighted at the end of Chapter two, I specifically sought to explore the materiality of MSM's digital sexual practices in order to make an interruption in the field of digital sexuality research. The chosen field was therefore justifiably focused on digital objects (van den Boomen et al. 2009), in order to counterpoise my findings to the extant literature. Following Hine's (2000) principles for digital ethnographic practice, this study drew on a range of sources, including:

sex-seeking websites, mobile phone applications or "sex apps", texting, and instant messaging. Table 2 provides categorisations of different media sources with examples encountered during this study.

The choice of field was the first element to structure affective flows through the research-assemblage, focusing attention on digital materiality (van den Boomen et al. 2009), or sexuality 'made durable' (Latour 1991). Rather than elicit participants' views and experiences of their use of digital media in the formation of sexuality assemblages, observation of digital media and material culture was adopted. This approach was chosen as part of the micro-politics of my study, in order to shift away from the elicitation methods that dominate MSM's digital sexuality research (see Chapter two). Though the potential field was the rather expansive definition of MSM's digital sexual materials, fieldwork was primarily conducted in three main sites: Craigslist, Cam4, and Grindr. The choice of sites was strategic as each allowed for the exploration of different socio-technical assemblages in the formation of digital sexuality, as will now be explored.

Craigslist is a website that allows for the placement of advertisements in various forums, covering a range of predominantly non-sexual but also sexual services. Advertisements appear in chronologically ordered lists of headlines that are categorised by broad theme. Each advertisement forms its own page which is then hyperlinked to the main list of headlines. Lists devoted to job advertisements sit alongside those for therapeutic services and sex-seeking. The sex-seeking category/list for MSM (M4M) formed the main source material from Craigslist. The design of Craigslist is minimal, with no banner advertisements on screen, whilst the majority of user posts are limited to text – though images can be included. The socio-technical system of Craigslist is therefore heavily invested in textuality. Being a general advertising media, Craigslist is far removed from a "gay coded" and marketised space (Aslinger 2010; Campbell 2005; Light et al. 2008). It therefore posed a unique site of enquiry given that men placing advertisements import sexuality, in whatever guise, into the space.

The second main site of study was Cam4, a website where individuals can engage in cybersex performances online that other website users can view. The audience

cannot see one another, and the performer cannot see the audience unless they engage in specific performances where both parties are visible (Camera-to-Camera, or C2C). Differentiating Cam4 from other cybersex venues is that the audience can give the performer on Cam4 tokens that are redeemable for money – explored in greater detail in Chapter seven. Cam4 differs from Craigslist, both in terms of the purpose of the site, its functional assemblage, and the fact that it is highly commoditised. Aside from the exchange of tokens-money, the website is replete with advertising hyperlinks to commercial pornographic websites, as well as sexual imagery. Being a venue for cybersex, Cam4 is multi-modal, incorporating moving image, audio, and high-end graphics and advertisements. Furthermore, whereas Craigslist sex-seeking assemblages are presumably a means to interact with men offline, Cam4 is about mediated observation at a distance and commercial sex.

The third and final main venue for data collection was Grindr, which shared similarities to Cam4 in terms of the commoditisation of its design. However unlike Cam4, Grindr entered into sexuality assemblages in a similar way as Craigslist, as a venue for seeking (sexual) partners. However unlike other online sex-seeking venues, Grindr incorporates geo-spatial location data, part of a new-era of digital cruising (Mowlabocus 2010a) – see Table 2 under mobile apps for a list of other such geo-spatial applications. Whereas Cam4 and Craigslist are ostensibly accessed via Personal Computer (PC)[13], Grindr was designed for and is used entirely from mobile devices, such as smartphones and tablet computers. Compared to PC based websites, Cam4 reflects a different socio-technical assemblage in terms of its architecture, layout, and functionality. Grindr and other such geo-spatial apps exploit location data in order to give an indication of proximate Grindr users. Other users are displayed on a grid based on distance. Unlike Cam4 and Craigslist, Grindr users have little to no control over how they present their location. Data relating to location is either gained from the phones in-built GPS technology, or based on the location of the Internet connection if the user accesses the Internet via Wi-Fi. Though the user can hide their distance, they cannot alter their position on the grid. The choice to

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[13] There are however mobile phone applications that allow you to access Craigslist. Furthermore, websites can also be accessed via mobile devices and tablet computers.

study Grindr over other similar geo-spatial apps was that it was the most popular and longest running mobile MSM "sex app".

Focusing on three sites alone was reminiscent of Mowlabocus' (2010a) study where the author drew on case studies of MSM's digital sexual practices. In doing so this treats digital practices in isolation, something that my study attempted to move away from. In line with a network sensibility, data collection involved working outward from the three sites, following the links (flows) that MSM created. In order to account for the juxtaposition between singular websites and the networks in which they sit, my design took on board Latour et al.'s (2012:593) comment that:

> By circulating in such a way from the [website] to the network and back, we are not changing levels but simply stopping momentarily at a point, the [website], before moving on to the attributes that define [the network]

Rather than seeing the main sites in a static sense, Cam4, Craigslist, and Grindr were points of momentary rest. Slowing down on a site and speeding up again into the network of linkages was dictated by my interest in particular empirical topics, for example the focus on digital sex work drew more heavily on Craigslist and cybersex websites such as Cam4.

Table 2 is a non-exhaustive list of sites that I engaged with, split into nine media types for ease of interpretation. Venues ranged from mobile devices to web-based Internet pages; from interactive messaging, to websites intended to sell goods. However rather than limit my study to those venues that generate sexual affects in bodies, such as pornographic websites or sex-seeking profiles, the process of following spanned the intersection of different assemblages. For example sexuality assemblages were found to intersect with those of consumer culture, being websites selling sexual goods such as sex toys. By using an open engagement with the field, this helped to follow these lines of flight into different assemblages. In the above example, exploring the interaction of consumerist and sexuality assemblages addressed the ways in which capitalism came to affect sexual enunciations. Having outlined the field sites explored in my study, the following section examines the data-gathering machine, particularly how the field was engaged with.

Table 2: Media type, brief description of media, and examples observed in this study; Italicised and underlined examples are main research venues

Media type:		Examples:	Definition:
Social Network Site (SNS)		Twitter, Facebook, Tumblr, Vine, Instagram	Users create profiles about themselves, which include images and written descriptions; There is also a social element where users can become 'friends' with other users (Beer and Burrows 2007:para.2.21).
Sex-seeking	App based	*Grindr*, Scruff, Jack'd	'While these [sexual] SNSs designed to facilitate the discovery of sexual encounters are not social networks in a definitional sense, users do have buddy lists and consider the sites a practical tool for a very specific purpose' (Gudelunas 2012a:357)
	Web based	Gaydar, Squirt, *Craigslist*	
Messaging	App based	Kik, WhatsApp, Snapchat	Media that allow for synchronous exchanges in real time (Hansen et al. 2011:20), be these images, text, or multimodal moving images.
	Web	Skype, MSM, Email	
	Other	Text messaging	
Self-produced pornography/video sharing		XTube, Pornmd, PornTube	Users create accounts to view, upload, rank and comment upon user-uploaded adult videos and images, produced by "amateurs" or the "industry" (Moore and Weissbein 2010:81).
Cybersex performances		Chaturbate, *Cam4*	'Televideo cybersex is a kind of interactive 'reality porn'… in which users – who are often strangers – conduct erotic performances for each other using webcams [whether for money or not]' (Jones 2008:454).
Discussion forums/blogs		Personal blogs, sexual and non-sexual orientated	'[S]paces where individuals, or groups, write for an online audience' (Beer and Burrows 2007:para 2.2).
Commercial pornography		Various websites, catering to specific fetishes – for example feet or Jocks	Broadly defined, pornography is taken to be 'any sexually explicit representation' (Lillie 2004:61) however there is a predominantly commercial aspect to these sites through 'mass production'.
Sexual commerce		Various websites selling products, but also promotional websites (for events).	Online venues for the purchase of sexual merchandise – for example condoms, lubricants and other sexual related products (Daneback et al. 2011), included here are websites intended for the promotion of gay specific venues e.g. nightclubs.
Other websites		Fundraising website, poll website, Amazon wish list	Websites that do not fall under any of the above categories and are not used for 'communicative' purposes (Whether synchronous or not).

4.2 The gathering machine

4.2.1 Engagement through digital ethnography

In practice engagement with the field was primarily through digital connective ethnographic methods (Hine 2000, 2008). The benefit of a connective approach is that it allows 'researchers to explore the ways in which sites are created and made meaningful, and the practices which sustain networking as a meaningful thing to do' (Hine 2008:267). However leading from this there were specific forms of unobtrusive data generation (Hine 2011; Ackland 2013) in order to record my time in the field for later analysis and reference (see Section 4.2.2). Markham (2013:440) indicates that when researching online, 'if one is researching bloggers, participation may not take the form of announcing one's presence on a blog, but rather understanding and engaging in the community of practice called "blogging"'. Similarly, researching the materiality of MSM's digital sexual practices involved my engagement in these practices and scenes through 'deep hanging out' within sexual settings (Geertz 1998). This hanging out or "lurking" as research practice has been used in prior studies of sexual cultures online. Attwood (2009), for example, spent time unannounced in cybersex venues as part of her initial phase of researching chat rooms. In the context of the current study, hanging out in the field therefore involved such passive activities as reviewing forums, blogs, Twitter, news reports, looking at profiles, watching cybersex performances etc. without engaging in or become an active contributor to these scenes.

It has been argued by Kozinets (2009:75) that when researching online, 'lurking, downloading data, and analysing while sitting on the side-lines are simply not options'. However, the position of unobtrusive observer is a culturally legitimate form of engaging online (Markham 2013), including in "gay spaces" (Rosenmann and Safir 2006). "Gay spaces" online have consistently been highlighted as being structured around the gaze of the other (Campbell 2004; Mowlabocus 2010a; Shaw 1997). This therefore illustrates that unobtrusive observation is constitutive of the digital sexual spaces observed in the current study. Furthermore Coleman (2008a, 2008b, 2013a, 2013b), through a Deleuzian lens appropriate to the current study, proposes that the act of looking, or the relation between bodies and visual media,

has an affective force on/with the becomings of bodies. This therefore questions the passivity of the act of observing online which is implied by Kozinets (2009) in the above quote. Looking, observing, and relating to/with the multimodality of MSM digital sexual practices generated affective resonances within myself, as researcher, but also as a man who has sex with men who engages in some of these practices.

Therefore in addition to observation, some of the materials used in this thesis originated from my own engagements in digital sexual practices. As highlighted in Chapter two, Race (2015a) similarly draws on his own interactions within digital sexual venues, labelling this as 'insider-ethnography'. As with Race (2015a:258), the use of selected materials from my personal engagements in these venues was based on research interests, and the ability of these encounters to disrupt the taken for granted assumptions about how these particular fields were working. Furthermore, these interactions would have taken place regardless, as with the materials in Race's (2015a:258) study, and as such they were not solicited from participants under pretence. It should be noted that the only materials reproduced verbatim from my own personal interactions were those between myself and a computer algorithm – a more detailed account of the ethical procedures composing the ethics machine is discussed shortly. In digital ethnography, unobtrusive data collection affords the ability to open up the otherwise ephemeral aspects of online practices to research (Hine 2011:1). The practice of 'insider-ethnography' and observation therefore meant that data could be generated on sensitive and hidden practices (Hine 2011:3).

> A schizophrenic out for a walk is a better model than a neurotic lying on the analyst's couch (Deleuze and Guattari 2000:2)

In this quote, and in true esoteric fashion, Deleuze and Guattari are offering the view that an open connection to the world, its minoring, is better than a closed neurotic one – see Cole (2013), Ringrose (2011, 2015), and Ringrose and Coleman (2013) for examples of such a wandering/mapping approach applied to empirical research. True to a network sensibility and a connective ethnographic approach (Hine 2008), movement along the links and hyperlinks from the three main sites mapped out the network-assemblage of digital sexual practices. Links refer to those explicit references that men make to materials that they generate in other venues i.e.

"Search for Ian Thomas on Facebook". Hyperlinks were the more formalised linkages that were embedded within user-generated materials and website designs, and which automatically took the viewer-user to the linked site when clicked on i.e. icons and buttons linking Grindr to Twitter. Accounting for both of these types of linkage was important, with the less formalised style being used to subvert the norms of sites that prohibited certain linkages. By their very nature, manual and non-standardised linkages would be missed by web crawlers and other automated means of hyperlink detection – see Ackland (2013:86-91) for examples of automated hyperlink crawlers. Furthermore most automated forms of hyperlink detection are web-based and therefore would not have been able to detect MSM "sex apps" which do not use web based interfaces. Manual logging of links and engagement in the field was therefore necessary.

Much like Deleuze and Guattari's (2000:2) allegoric schizophrenic, a connective approach to digital ethnography meant that rather than following a pre-defined path, the topography of the sexual landscape was followed, going where the action was. MacLure (2013b:175) suggests that this type of affective relation to data highlights instances where data glows in significance, to 'become the preoccupations around which thought and writing cluster'. For example the decision to look at commodification came through an engagement with Internet venues, piqued by adverts selling sex on Craigslist and by the act of performing on cybersex venues for tokens. Ethnographic practice was therefore an appropriate choice of method(ology) for a minor approach, given that as a research practice it fosters an experimentalist mentality (Hammersley and Atkinson 1983:18).

4.2.2 Data extraction

Though observation and insider-ethnography guided my engagement with the field, the data-gathering machine deployed various methods to generate extracts of digital sexual practices. The focus of these extracts was the visual field (Emmison et al. 2012), encompassing the digital architecture or contents of venues, as well as the practices within them, their expressions. Corner (1999:230, original emphasis) suggests that mapping involves creating extracts, these being the 'things that are

then observed within given *milieu* and drawn onto the graphic field'. Extracts are pulled from their 'seamlessness with other things' (Corner 1999:230), and are therefore de-territorialised from the assemblages they were a part of, only to be re-territorialised within the research assemblage. The process of extracting digital sexual practices therefore made them amenable to later analysis. Working through Fox and Alldred's (2015a) research event assemblage framework, the use of such data capturing could lead to affective flows that privilege the researcher's perspective. However by being open to affective resonances when relating to the visual, this challenges assumptions that the looker has authority and mastery over that which is being looked at (Coleman 2008a, 2013a, 2013b; Ringrose and Coleman 2013).

Field observations were carried out over approximately two years, beginning in mid-2013. Markham (2013:439) wrote that one of the main issues when undertaking Internet research is the temptation to collect everything. Initially this ethnography was no different, however theoretical and methodological interests in commercial sex and the digital materiality of sexuality helped focus my data collection. In total, collected data amounted to over 8,600 files and 1.65 GB of data.

Primary means of extracting the visual from web-based venues was through a PDF creator in Firefox web browser. The PDF creator generated copies of webpages in PDF format that froze their elements for future review. Using screen captures was far more effective at extracting the visual, capturing everything visible on screen with little change in layout. However there was some alteration in the images produced, for example colouration was not a true likeness, edges were smoothed, and the pixilation lowered. Furthermore, screen captures could be corrupt upon saving without knowing; on one occasion this rendered an entire series of screen captures of a cybersex performance useless. In order to overcome this potential for file corruption, screen captures were copied directly into word documents, thereby presenting a rolling series of images that could then be annotated. Use of these methods for data capture varied dependent on the particular venue, as I discuss shortly. For brevity, the following paragraphs summarise the materials that I

collected within the three main venues, and which method of extraction was used in each case.

A corpus of Craigslist advertisements from the M4M (Male for Male) casual encounters section was saved from 9 UK cities/regions during the course of a single day (Table 3). The purpose of this corpus was to capture daily activity on Craigslist in the UK, and to provide a stable point of reference for analysis (Chapter six). I chose a sample of geographic regions in order to make the task of creating the corpus more practicable, rather than attempt to capture data from all 27 regions that compose the UK Craigslist website. The corpus, which will be referred to as *Day in the life*, consisted of 1,006 advertisements saved as PDF files. Any images that were included with adverts were saved separately, resulting in 529 JPEG files. In order to undertake a Network Text Analysis (NTA) of these advertisements (see Section 4.4.2), the PDF versions of advertisements were converted into text files. This involved the manual extraction of the textual elements of advertisements, which were then saved into a Word document. Both the "headline" text and the main body of the advertisements were extracted. Where images were included with advertisements, each image was coded as Image_[Image Type], where [Image_Type] was a brief description of the image's content. Image codes where inserted in between the headline and the main text of their respective advertisements in order to retain the structural ordering of the headline-image-text relationship. Prior to undertaking the Network Text Analysis (NTA) used to analyse the Craigslist corpus, the word document was split into individual text files, one for each advertisement – the method of NTA is described in Section 4.4.2.

A smaller subset of the main Craigslist corpus was generated, focusing on commercial sex – discussed in Chapter seven. This sub-sample, the *Commercial Sex* corpus*,* was composed of 101 advertisements saved as PDFs. I reviewed the *Day in the Life* corpus for content that indicated engagement in sex or sexual activities, broadly defined, in exchange for money or other services. This initial set of advertisements was then reviewed for commonalities in language use and style, which I then used to further search the main corpus. An example of such a commonality was the use of symbols to replace letters in words, thereby implying the exchange of sex for money e.g. 'In

need of some c£sh [cash] fairly quickly' (Craigslist M4M, advertisement, 2013). As indicated in Table 3, the majority of Craigslist M4M casual encounter advertisements originated from London, 69 per cent of the corpus overall, with a similar domination of London in terms of commercial sex (67 per cent).

The multimodal nature of Cam4 meant that capturing all modes was a technical challenge. Using video capture technology to record the performances could have achieved this, however the use of such recordings would have created an exact copy of the performance. I felt that the use of video capturing would have therefore infringed upon the rights of the performer to control their content, being their performances as performed. Therefore in the case of Cam4, structured observation and data extraction of performances varied, depending on my particular analytical interest. Notes were taken of some sessions and written up directly into Word documents. In the majority of cases, because the on-screen action was fast-paced and interest was mainly in the performance itself, screen captures were taken. These screen captures were either saved directly as JPEGs, or were pasted into a Word document to be annotated. Being freeze frames of the unfolding action, screen captures came together as a series of moving pictures in the formation of an original piece of work, rather than an exact copy.

Table 3: Regional breakdown for Day in the Life and Commercial sex corpus

	Day in the life corpus		Commercial sex corpus	
	Number of adverts	Per cent	Number of adverts	Per cent
Aberdeen	8	1	0	0
Belfast	86	9	13	13
Cardiff/Wales	29	3	1	1
Devon/Cornwall	10	1	0	0
Edinburgh	43	4	2	2
London	691	69	68	67
Manchester	80	8	9	9
Newcastle	44	4	7	7
Oxford	15	1	1	1
Total	1,006	100	101	100

In total 15.4 hours of formal observations were made on Cam4, covering 23 performances ranging in length from only a few minutes, to 3 hours in length. Of

these performances, 13 indicated they were based in the UK, 7 in the USA, 2 from within Europe, and 1 from Latin America. Just over half of the performers indicated that they were either bisexual or straight (57 per cent). The minimum and maximum *stated* age of performers was 18 and 43 years old, respectively, with the mean age being roughly 25 years old. After formal observations, I continued to draw on Cam4 as a source of ethnographic data, principally during the process of following linkages between media in order to explore the use of linkages in situ.

Observations on Grindr were made via smartphone, using my own profile on Grindr. I used the screen capture function on my phone to save profiles, and on occasion some interactions – see Chapter eight. It should be stressed that no personal interactions with sexual partners were captured, only those interactions with "bots", or automated response algorithms. Data generation within Grindr amounted to 236 JPEG images that captured the entire screen of the mobile phone.

Though the above data covered the main collections, observations were made of other sources, as outlined in Table 2. During this general period of hanging out in digital venues, screen captures were used to record elements of interest. For example where an individual's Grindr profile included a link to their Instagram account, this link was opened and the Instagram page saved. Links on subsequent pages were then followed, saved, and so on. Saving these digital traces meant that links could be revisited at a later date as my collection evolved, in order to cross check and validate assumptions e.g. surrounding patterns and context of linkages. This method was used, for example, in identifying particular professionalised camera performances based on their linkages to social media such as Twitter.

Further data were collected from blogs and forums, with posts of relevance to MSM's digital sexual practices being read and saved for future reference. Searches using general search engines were particularly useful when tracking the changes in venues over time, by reviewing blogs run by corporations and saving the details and dates of system upgrades. A timeline of the evolution of many of the sites was mapped out using blogged materials e.g. the changes in Grindr's architecture, or those made to Cam4 to allow for the exchange of tokens. Having outlined the different methods of

data collection, in the following section I map out the ethics machine guiding my research practice.

4.3 The ethics machine

The main academic guidelines informing my ethical practice were the Association of Internet Researchers recommendations for the use of online materials (Bruckman 2002; see also Figure 2), and the British Psychological Society's (BPS) (2007) guidelines for psychological research online. Though these sources were written primarily for Internet based research, they are sufficiently broad enough to be applicable to other digital media research e.g. mobile phone applications. My approach to ethics was not a product of a one-size-fits-all approach, but from reflecting on these published guidelines, and on the research encounters them-selves, in order to arrive at suitable ethical outcomes.

Ethical outcomes were taken to be those outcomes where the research and event machines came together in the research event assemblage, and which allowed for the event machine to continue unimpeded. Malins (2004:97), drawing on DeleuzoGuattarian assemblages, argues that an ethical interaction is one where 'bodies emerge with a strengthened – or at least undiminished – potentiality'. Within the current study this meant not foreclosing the capacity of digital sexual practices to affect and be affected in the future. Not limiting affect formed the ethical *approach* in this study, and indeed the reasoning behind the adoption of a minor mode. However my ethical *practice* can best be grasped by attending to common issues in Internet research. In both Bruckman (2002) and the BPS (2007) guidelines, these issues are the consenting process and anonymisation, which I address in the following discussion.

I engaged with the sexual cultures of MSM via observation of digital media and through insider-ethnography. However being un-announced in these settings, and therefore not gaining consent, meant engaging in covert research. Although covert research is not standard practice in the social sciences it has been used when

researching MSM offline sexual cultures[14], given the furtive nature of the encounters under study and the general societal taboo in discussing sexual acts. The situations I faced during the course of this study would not have been amenable to informed consent procedures or overt methods. To announce my presence as a researcher in these settings may have been disruptive to flows of sexuality within and across them. In addition to avoidance of disruption, from an ethics review perspective, covert research is also justifiable in situations where it will provide unique forms of knowledge (Economic and Social Research Council 2015:31), which I was attempting to achieve by addressing different knowledge's of digital sexual practices.

Clark (2006), in a discussion piece on anonymisation of social scientific data, states that within social network research, context is important in analysing interactions and connections. Maintaining some of the context of digital sexual practices was therefore important when presenting data, in order to show how each practice related to others. Rather than 'blanket anonymise' data (Clark 2006:5) by removing all actual referents to the digital sexual landscape of MSM, I chose the less blunt method of adopting various levels of 'disguise' (Bruckman 2002). Here disguise is synonymous with anonymisation, to the extent that both relate to the degree to which information is concealed (Marx 1999). Bruckman's approach to disguise uses alternating levels of anonymisation to suit different types of data (Figure 2), being specifically couched toward Internet and media studies. However, whereas Bruckman's original use of disguise related primarily to the concealment of names (e.g. artists, content creators, pseudonyms etc.), I found it equally as useful for the treatment of other materials. It was flexible enough to account for the nuances of working with digital (authored) materials that were multimodal in nature, and which would have therefore been difficult to anonymise through the usual blanket approach – not without reducing the data to a series of textual renderings and affect-less representations.

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[14] See Leap (1999) for a collection of works on public sex. Coxon (1996) undertook observation in local cruising grounds as part of their research conducted at Cardiff University. Ramello (2013), in an ethnographic study of older Italian men's cruising practices used participant observation, with this being justified on the basis already stated – disruption of the scene. Finally, Tewksbury (1995; 1996; 2002) has studied gay public sexual encounters and spaces extensively using covert observational methods.

As indicated in Figure 2, heavy disguise reflects standard anonymisation procedures in social science research (Clark 2006), for example using pseudonyms to replace "actual" names, and changing details regarding the situations under study. Light or no disguise is the opposite of this, where some or all of the "actual" data are directly reproduced. In general, certain levels of heavy disguise were applied to all materials in my thesis. For example pseudonyms and personal contact details were changed, and all visual images included in this thesis were altered to some extent – see later discussion in this section on the presentation of data for more information on changing visual images. However certain venues were named, and in some instances attribution for content creation was given, reflecting elements of light or no disguise.

Retaining some details regarding venues was important in enabling my thesis to link up to previous research assemblages. For example replacing mention of Twitter with the name Gabble, or some other pseudonym, would firstly require work in (re)establishing the importance of Gabble, its (fake) history, function, and some of the affect flows it enabled. A standard anonymisation procedure would have removed any common points of reference between my thesis and the actualities of MSM's digital sexual practices. Being able to invoke the name Twitter, to continue the above example, enabled me to draw directly on research on this venue, as well as tropes that circulate regarding it as place-space for certain practices.

The choice of level of disguise was based on the situation, including the type and nature of the data being considered and the norms of the venues regarding attribution. An example of light disguise in my thesis is the discussion of Craigslist and Cam4 in Chapter seven. Here the websites are named in order to situate their evolution, however the names of the men interacting via these websites are subsequently changed – as has been the case in other such studies which name venues (e.g. Light et al. 2008; Mowlabocus 2006, 2010a; Roth 2014, 2015).

No disguise was used when drawing on materials quoted from public and/or permanent fora that related to the general topic, and where there was a general expectation of attribution. Examples of materials where no disguise was used were blog posts. In these instances the pseudonym of the blogger was attributed to materials and a reference included in the bibliography. Despite Twitter being a public

fora, it was treated as a special case. Though there is an expectation of attribution when using materials from Twitter[15], tweets could potentially be traced back through a person's network to an (offline) individual. Twitter pseudonyms were therefore changed and the quoted materials were unattributed in order to avoid these potentially unforeseen disclosures.

Figure 2: Guidelines for treatment of names and online pseudonyms

No disguise:
The Internet is rather like a playground for amateur artists. In many cases, people deserve credit for their relative work.
Pseudonyms and real names may be used with permission of the individual.
The individual's claim to copyright over the work is respected.
The real author of the work is verified. (Some work may be copied or highly derivative, meaning credit belongs to the original author.)
The researcher should omit details that would be harmful to the subject if revealed.

Light disguise:
• The group is named
• Names, pseudonyms and some other identifying details (place names, organizational and institutional names, etc.) are changed
• Verbatim quotes may be used, even if they could be used to identify an individual
• Group members themselves may be able to guess who is being discussed
• An outsider could probably figure out who is who with a little investigation
• Details that are harmful to individuals should be omitted

Moderate disguise:
• A compromise position is chosen, incorporating some features of light disguise and some of heavy disguise, as appropriate to the situation
• Details of the specific compromise are reviewed by the researcher's IRB (as they are in all levels)

Heavy disguise
• The group is not named
• Names, pseudonyms and other identifying details are changed
• Verbatim quotes are not used if a search mechanism could link those quotes to the person in question
• Some false details may be deliberately introduced – For example, if you are studying a support site for a chronic disease, you might change the disease in published accounts
• No one would likely recognize the subject (except perhaps the subject him/herself)
• Someone deliberately seeking to find a subject's identity would likely be unable to do so
• Details that would be harmful to the subject if disclosed *may* be revealed, because the subject has been carefully anonymized [sic]

Source: Bruckman (2002:229-230)

In instances where digital sexual activities occurred within semi-private fora, as in the case of Cam4, then attribution was not used. However, due to the impermanent

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[15] See for example https://about.twitter.com/company/display-requirements where Twitter outlines guidance relating to the display of Twitter content.

nature of the interactions which occurred on Cam4, for example via text-based chat or web-camera, and where no record is retained after the session, materials from this site have been quoted. Similarly, the impermanent nature of profiles on Grindr and advertisements on Craigslist, which in the three years since beginning my study have since either been altered or removed from their respective systems, meant that certain materials from these venues could be reproduced. As will shortly be discussed, when presenting data as either textual quotes or through visual materials, different measures were taken to disguise materials. Though the use of a standard anonymisation procedure may have been easier to implement, varying the levels of disguise meant that the reporting of this study did not unnecessarily foreclose any avenues of research.

The tension between the need for participant anonymity and altering data to maintain this is an issue in qualitative research (Kaiser 2009), more-so in relation to online research where the respondents also author their own digital texts (Barnes 2004). One of the main ethical objections that could be levied against the use of Bruckman's (2002) framework for anonymisation is that where heavy and moderate disguise are used, this therefore removes the authorship of the subject from their texts. Although it is not uncommon for some of the participants in studies of online environments to express a desire for recognition (Rutter and Smith 2005:90), there is a body of virtual ethnographies that have anonymised participant identities, regardless of these preferences (e.g. Rutter and Smith 2005; Boellstorff 2008; Kendall 2002). The concern shared amongst these works is that the field under study remain intact and un-altered after the research interaction has ended, rather than an obligation to a single individual in that venue. In order to maintain the status quo of venues such as profile websites and paid cybersex, ethical conduct therefore called for the legitimate use of *elements* of heavy disguise that combined anonymisation of pseudonyms and the inclusion of false details. For example in Chapter five, Section 5.2.2, a case study of a single man is used to explore his digital network, called ArmyDave. However this is neither his name nor his profession, but close enough so that the reader is placed in the same mind-set as I was when encountering ArmyDave's digital sexual assemblage.

A brief note on presentation style (The presentation machine)

In the previous section on ethics I addressed the disguising of materials. However in addition to procedures for attribution/anonymisation, there were additional stylistic changes made to the majority of digital materials that referenced sexual engagements[16]. These changes were partly undertaken with an eye on heavy disguise and ethical reasoning. Altering materials increased the difficulty of locating text extracts using search engines, and reduced the potential for (auto)recognition by men engaging in these practices. In the first instance spelling was "corrected", instead of using [sic] to indicate where errors occurred. Furthermore, idiosyncrasies in language style and abbreviation were also adjusted i.e. bttm and vers, being bottom and versatile in reference to sexual positions. The following example illustrates unadjusted text from a Craigslist advertisement:

> ***gloryhole - quick suk n go*** – want my cock suked now get in get on yr knees no talkin no shit just get down suk me then go if u gud n yr cock not too big I mite return the favour n suk yours - pls be clean txt me oh one twoo three four five six seven eight nniiinnee ooh ill txt u how to get to gh rite bak (Craigslist M4M → Telephone, advertisement, 2013)

Here the advertiser sought oral sex from another man ('want my cock suked'), with the potential for this to be reciprocated. The advertiser ended the post by providing their telephone number by spelling it out. Throughout this thesis, where contact details are provided in quoted materials I have substituted fake details, for example Telephone number: 01234567890, and Email: an_email@email.com. When reporting the above advertisement, it would be re-written as follows:

> ***gloryhole - quick suck and go*** – Want my cock sucked now get in get on your knees no talking no shit just get down suck me then go if you're good and your cock is not too big I might return the favour and suck yours - please be clean text me oh one twoo three four five six seven eight nniiinnee ooh I'll txt you how to get to the gloryhole write back (Craigslist M4M → Telephone, advertisement, 2013)

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[16] Figure 31 and Figure 32 were exceptions as they reproduce Craigslist advertisements in their entirety. Here the visual field was important in terms of the activities being conveyed, which necessitated the (re)presentation of the advertisements as part of this thesis. However, visual images included in the advertisements were altered to protect anonymity.

Fetterman (2010:1) indicates that convention in ethnographic inquiry is that verbatim quotes and thick description give voice to people. However affording participants anonymity when reporting on sexual acts that are permanently in the public domain, and are therefore searchable, was felt to outweigh any loss of affect from the original events caused by altering user content.

In addition to altering textual materials in an effort to disguise them, images were similarly adjusted in order to maintain anonymity. Different visual effects were applied, and/or images were cropped to hide individuals' faces. The intended effect of making such adjustments was to reduce the likelihood of (auto)recognition by the men themselves, or those engaged in these particular digital venues, whilst retaining as much of the initial affective resonance from the visual field as possible. In many cases it was the spatial configuration of the visual field that was of interest i.e. the architecture of digital sexual venues, rather than the "content" of the images.

Visual effects were added to images by pasting the selected materials (in JPEG format) into a word document. Within word, automatic visual effects ('Artistic effects') were then applied to images by highlighting each image and then selecting 'Format Picture'. Artistic effects included changing images and materials to give the appearance that they were painted by hand, or drawn using pencils, rather than being images. In addition to these effects, the contrast and brightness of images was altered in order to bring out their most salient aspects – salient in terms of my analysis and presentation of the materials. For example salient aspects may have been the structure of a profile, or the positioning of bodies displayed in images. Alternatives to using these materials would have been to omit them altogether, or attempt to convert the visual into a discursive rendering, at the potential loss or altering of their affects. However by disguising images through the application of artistic effects, this meant that these could be used in tandem with text, to convey some of the original affects generated in my encountering of these materials, without disclosing the identities of the men who generated them.

In one instance (Figure 22), the use of artistic effects rendered the material unintelligible. This image/data extract was therefore recreated using images from Google Images, and which had the same content (someone being massaged), thereby

rendering similar affects in the reader/viewer/analyst. As with the application of artistic effects, the intention was to disguise the data, and thereby make it more difficult to find the corresponding materials online, whilst retaining its affective potential to move the reader in a particular analytical direction.

Similarly, Figures 34, 35, and 36, show screen captures from a cybersex performance that were further altered after the application of artistic effects. These alterations involved overlaying images with various pieces of dialogue, in order to highlight the audience's reaction to the on-screen action. Here I was attempting to generate a new data assemblage that combined the visual and textual modalities of this particular digital sexual practice. I took inspiration from Sigrid Norris' work on multimodal analysis, where images and text are often used in tandem to convey the multimodality of data – see for example Norris (2002). It was the multimodality of this particularly intensive camera performance, and the affects it generated in me (the viewer), which I was attempting to convey through the presentation machine.

Another stylistic approach I adopted was to provide contextual information for certain quoted digital materials. This contextual information included the source of the material (i.e. Cam4, Craigslist, Grindr, Twitter, Facebook), the destination venue if any linkage was made, the material type (i.e. advertisement, bibliographic information, profile text, post, performance, tweet), and the year of generation. In the example given above, the source was Craigslist M4M section, the destination was telephone number, the source type was an advertisement, and the year was 2013. The "→" symbol indicates the direction of flow. Where there was more than one destination, then this appeared as an additional set of linkages. When referencing materials from niche community venues, and where there was the potential for disruption to the flows of sexuality within these sites, general descriptions were used to define the source i.e. Forum and Profile site. Where materials were short quotes within the main body of my discussion, then a more relaxed style of contextualisation was used, with the pertinent situational information being included in the body of the text i.e. "In these headlines from Craigslist sex-seeking posts…".

4.4 The analysis machines

Rather than limit myself to one method of analysis, that produced themes, that then became my empirical chapters, data were analysed using multiple analytical machines. In Chapters five, six, and eight, diagramming/visualisations form the basis for my analysis. In Chapter seven, a Deleuzian approach to analysing multimodal data as complex assemblages, was adopted. Through each form of analysis I intended to draw on different aspects of the data in order to explore MSM's digital sexual practices differently. This use of multiple means of analysing my materials followed on from the edict of a network sensibility for greater sensitivity to complexity and movement, as well as the use of visual renderings (Markham and Lindgren 2014). Though each empirical chapter pays attention to a different aspect of MSM's digital sexual practices, they remain loyal to a minor approach that affords space for non-human relations in the analytical machine.

In accounting for the non-human, my analysis therefore shared some similarities to Clarke's (2003, 2005) situational analysis, which maps out the relations between conceptual entities – regardless of the nature of those entities. However unlike situational analysis, where data are generated that are then coded into themes by the analyst, or at least 'somewhat "digested"' (Clarke 2005:84), portions of my analysis proceeded by mapping out data directly through visualisations. Data that were visualised through the creation of network-assemblage maps included concept-word-things and patterns of media use/linkage – as I go on to discuss in detail shortly. There were further points of similarity and departure between my analysis machines and that of Clarke's (2003, 2005) situational approach.

It has been suggested by Clarke (2005:83-84) that situational analysis is an aid to stimulating thought by opening up data. Part of the process involves the researcher considering the relationship between elements in a setting (Clarke 2005:102), something that was adopted in my study by considering the use or function of linkages – or why the elements mattered to one another (Banks 2015:9-10). The production of visualisations and following pathways through these, provided a new way of experiencing MSM's digital sexual practices through research. However unlike Clarke's (2005) maps, the visualisations became data in themselves, that were then

analysed through further analysis machines – see discussion of Social Network Analysis (SNA) metrics (Section 4.4.5). Banks (2013, 2015) has advocated a similar method for undertaking network visualisation and analysis, based on ANT and a network sensibility. However unlike Banks (2013, 2015), rather than the formation of the (networked) self, the minor analyses I adopted considered the materiality of MSM's digital sexual practices in their own right, as a system of relational entities. In the following sections I explore in greater detail the relational or network methods of analysis adopted in my study, firstly through the use of visualisations, and secondly through a Deleuzian inspired multimodal analysis.

4.4.1 Visualising the linkage of media as part of MSM's digital sexual practices

In order to address the main research aim of undertaking a minor study of MSM's practices, networks formed the basis for a hybridisation of concept mapping of ideas and entities (Markham and Lindgren 2014), and hyperlink analysis (e.g. Beaulieu 2005; Park 2003; Park and Thelwall 2003, 2005). Here the explicit links and hyperlinks left by MSM as they went about generating different sexual assemblages were first entered into SNA software NodeXL. This data was then analysed and visualised using SNA package Gephi and NodeXL – the reason for this mixture of packages will be explained shortly. In plotting linkages I sought to problematise prior research that has explored the digital sexual practices of MSM, and MSM venues, in isolation. The network visualisation produced was composed of a series of nodes or points, connected by lines. Each line indicated some form of connection between the points (Ackland 2013:49).

To generate networks, Gephi and NodeXL both require an input dataset that indicates which nodes are linked to which others. NodeXL, which is a SNA programme written into Excel, was used in order to curate the initial linkage dataset, rather than inputting the relational data directly into Gephi. NodeXL allows the user to input and manipulate the underlying data more easily than Gephi. Being able to quickly amend and visualise linkages enabled me to follow pathways through the network-

assemblage, and explore how each new addition of nodes and linkages generated changes in the network-assemblage.

Sensitivity testing using the two packages indicated that NodeXL may not have accounted for directionality when constructing measures of centrality – see Section 4.4.5 for a definition of centrality measures. For example when conducting SNA in NodeXL, mobile "sex apps" had a much greater betweenness centrality (Section 4.4.5 for definition) than when performed in Gephi. However as mobile sex apps are not linked into, then they would naturally have low betweenness centralities as nothing flows through them – which between centrality measures. My engagements with the field suggested that the direction of flows were an important aspect in the structuring of venues, therefore Gephi was used to perform SNA analysis in order to account for directionality, as the programme has options for analysing both directed and undirected graphs.

Figure 3 is a version of the link analysis mapped out using Gephi where I have zoomed in on a particular area of interest. The nodes in Figure 3 are individual media and technologies (e.g. Twitter, Cam sites, Tumblr), whilst the connecting lines indicate the presence of a link having been made between the two linked media. An example of such a linkage would be if I included in my Twitter biography section "Search for me on Gaydar, my profile name is AFakeProfile69". In this example, the linkage would be from Twitter, as the originating website, to Gaydar, itself being a web-based profile site (Twitter → Profile site). However due to the idiosyncrasies of the visualisations available in Gephi – which is better suited to larger data sets (see for example Section 4.4.2) – and which make this network-assemblage difficult to follow, I decided to use NodeXL to produce the visualisations for my discussion in Chapter five.

Movements between the two different software packages meant that the affordances of each were used to increase the affective capacity of the research-event assemblage. For example Gephi enabled a rigorous analysis that made "sense", whilst NodeXL maximised the potential of the visualisations to generate affects with/through the reader/analyst. However the use of a connective digital

ethnography to generate the relational data came to affect the ways in which a network approach was realised through this particular analysis machine.

Figure 3: Close up of link analysis visualisation from Gephi; Nodes indicate digital media/technologies whilst connecting lines indicate that a link was made
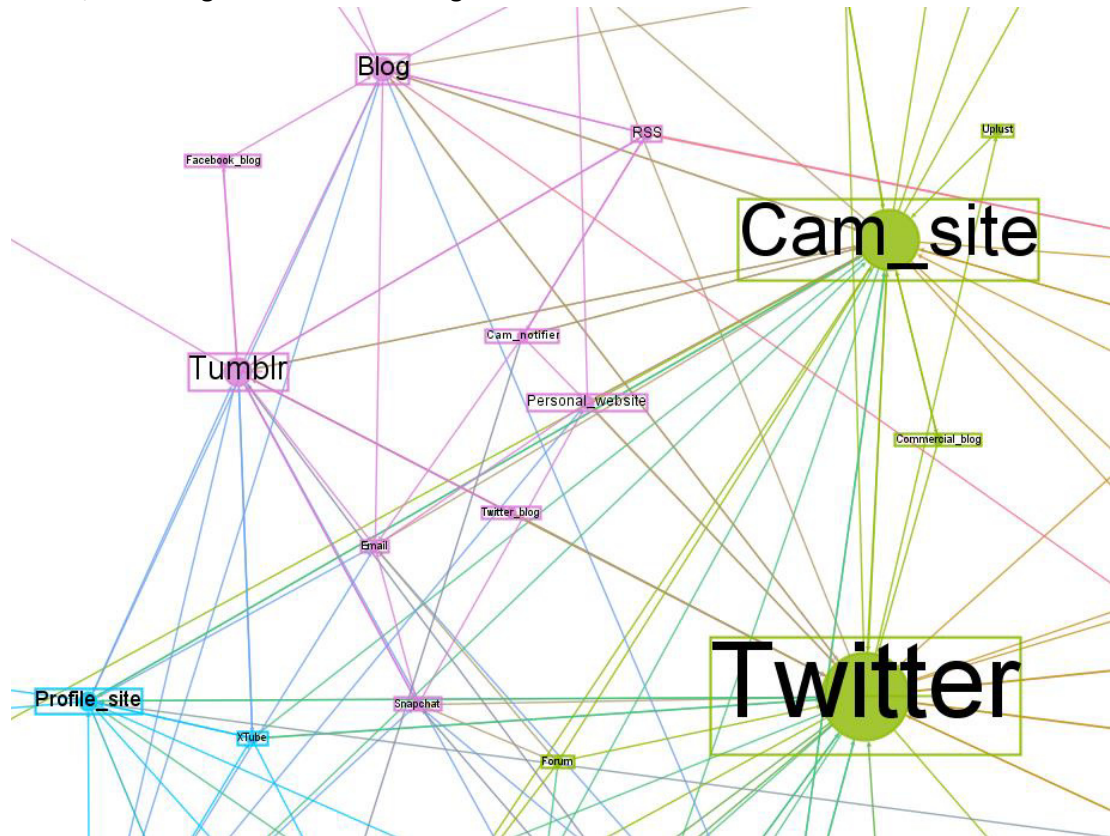
Though the network-assemblage generated in Figure 3 indicates that linkages were made between Twitter and Camera performance websites (Cam_sites), for example, this does not indicate the frequency with which this linkage occurred. An analysis based on counts could have been conducted as each data extract and its associated linkages was logged. In order for such a frequentist approach to make "sense" then a complete population of men in these venues would be needed (Rothenberg 1995). Given that field observations started mainly from three main sites, this may be a limitation of the representativeness of the resultant network-assemblage. However as the starting venues were not related, at least not in any obvious way, reflecting different practices and drastically different venues, then some degree of "randomness" was achieved. The uncertainty regarding the representativeness of frequency counts outweighed the analytical usefulness of including such counts. Instead my use of a network analysis of linkages was for 'sociometric purposes'

(Rothenberg 1995:106), to explore the patterns of relationships between media, as one particular snapshot of all possible (virtual) network-assemblages.

4.4.2 Deploying a network sensibility to analyse corpus data

The second usage of a network sensibility was through the Network Text Analysis (NTA) of the Craigslist *Day in The Life* corpus. NTA is a method for exploring the relationship between words as they co-occur within and across a text corpus (Carley 1997; Drieger 2013). As indicated in Section 4.2.2, in addition to words, images included with advertisements were coded as textual data so that they could be accounted for in the co-occurrence analysis. Elements within the maps discussed in Chapter six therefore reflect a mixture of concepts, words and things, or concept-word-things as they will be referred to later. NTA operationalised a baroque complexity discussed earlier, by looking down into a single venue (Kwa 2002). It also expanded on the minor mode by offering a different way of analysing the materiality of MSM's digital sexual practices, thereby further contributing to the main research aim of studying these practices differently. Figure 4 is an example of a concept-word-thing network produced from the *Day in the Life* corpus. A specialised software package for text analysis called Automap (Carley et al. 2013) was used in order to analyse the corpus and produce the quantitative data underpinning the NTA visualisation.

Automap derives word co-occurrences using the method known as windowing. The windowing approach uses a "window" n-words wide. This window slides through the text, with the word pairs that occur within it being counted and aggregated as it proceeds (Danowski 1993:202). In this study the window ran through each individual advertisement, firstly moving from start to end, then in reverse. The frequency of co-occurrences was then aggregated by AutoMap to produce corpus level data. In initiating an analysis using AutoMap, the user is able to set the coding rules that control the sliding window. In this analysis I used a window size of n=3 words wide. Sensitivity testing of different window sizes ranging from two to five words found that large windows produced graphs that were too detailed, forming dense interconnections due to the extent of over counting. In looking for co-occurrences

within a three-word window, affect flows within Automap were limited to near associations. However I used this function strategically in order to explore the structure of the text corpus. As advertisements were presumably written to be read linearly, exploring nearby associations accounted for the procession of word usage across the unfolding text.

Figure 4: Example of network-assemblage produced by Network Text Analysis, using Gephi to visualise the underlying co-occurrence data
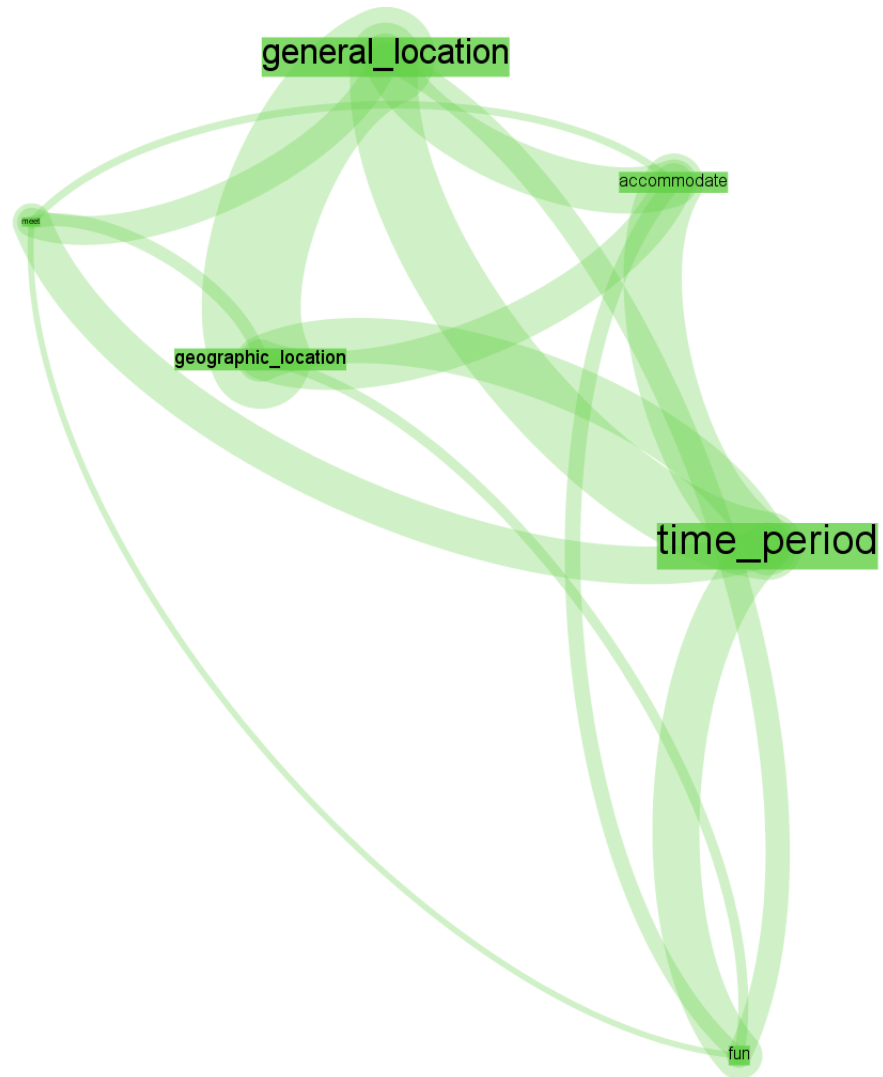
Prior to running the windowing procedure the text was "cleaned", firstly through the application of a generalised thesaurus that grouped words together, and secondly through the removal of stop words. Stop words are frequent words within a text that are redundant in terms of their singularity as a specific kind of text. For example *the* and *when* are commonly occurring words that do not add to the uniqueness of a text.

The generalised thesaurus was generated by reviewing raw word frequencies in order to identify common spellings and other recurrent language features. For example place names were prevalent throughout the corpus, however in their raw form they would not occur frequently, given their individual nature. Grouping these into a specific category (geographic_location) therefore meant that associations of place labels with other words could be identified.

The final element of data cleaning that was applied to the corpus was the removal of punctuation and numbers. Combined, the greater control over the analysis of word co-occurrences made AutoMap preferential over other forms of network analytical software – see for example Textometrica (Lindgren and Palm 2011). However Automap only produced the word co-occurrence frequencies, Gephi was used to visualise and undertake SNA analysis of this. Unlike the network-assemblage of media linkages, which used all of the possible linkages between media in order to map out possible connections, the NTA analysis used further filters in Gephi to reduce the network before analysis. Furthermore, in comparison to the network-assemblage as part of the link analysis, the direction of linkages were not retained, and the graph used in my analysis in Chapter six is undirected. This decision to use an undirected map was made because the method of NTA deployed in this study, as explained above, accounted for near associations, which therefore reflected directionality.

Appendix C provides a more detailed description of the design choices made in creating the NTA network-assemblage in Gephi. Each of these choices structured affect flows through the analysis-visualisation machine. However as NTA was primarily used as a method of visualising associations within the *Day in the Life* corpus, as a different way of engaging with digital materiality, then measures of reliability were relaxed in order to engage with the visualisations as performative (Madsen 2014; Markham and Lindgren 2014).

In addition to the theoretically informed reasons for adopting NTA to analyse the *Day in the Life* corpus, the automated analysis it offered was another attraction of the method. As Drieger (2013:8) notes of NTA, an analyst would not be capable of the fast processing of large amounts of text, whilst a computer cannot automatically explore semantics in the same way a human can. NTA is therefore one method of

tackling these two competing issues in the analysis of a large corpus of material. Furthermore, rather than an approach that categorises whole advertisements, or parts of them, networks map out language within a text corpus (Danowski 1993:198). However in the process of forming a semantic web, the text is transformed, leading to an abstraction that provides an alternative route into the text (Drieger 2013:15).

4.4.3 Diagramming sexuality within MSM's digital sexual practices

The final visualisation used in this thesis, deployed in Chapter eight, drew on Guattari's (2013) method of diagramming, also known as his schizoanalytic meta-model. Guattari's meta-model proposes that the (social) world is composed of four domains that overlap and fold into one another. These domains relate to aesthetics, the self and ways of living, systems, and finally flows of materiality. For example profiles on sex-seeking websites are a combination of visual aesthetics, cultural norms, systems of rules that govern the use of such websites, sensual experiences, and finally flows of words and images. This framework was applied as a method of analysing empirical materials in terms of enunciations of sexuality. The meta-model thereby addressed the final research question posed my study regarding the materiality of sexuality within MSM's digital sexual practices. Rather than generating networks as such, the meta-model consists of four domains that remain true to the network sensibility and its attendance to movement and complexity (Markham and Lindgren 2014). As with the NTA of Craigslist, the meta-model also attends to a baroque analysis of complexity by looking down (Kwa 2002) into MSM's digital practices, at the translation of sexuality as it passes through each of the four domains.

4.4.4 Critical appraisal of diagramming/visualisations as analysis

One of the main criticisms of network analysis is that it is a-theoretical and overly descriptive (Borgatti et al. 2009:893). Furthermore, Ackland (2013:8) suggests that network visualisations in Internet research are a first and not a final step in the analysis of online phenomenon. Though networked methods may therefore be

disappointing for those seeking strong explanatory accounts (Law 2008:141), its descriptive nature sat perfectly within the experimental and exploratory nature of my study. However rather than being inert descriptions, Savage (2009:170) suggests that assemblages are a creative process whereby 'observation can be used to mobilize novel insights'. The descriptive approach to network analysis mobilised novel insight into how network-assemblages of digital sex work, by asking what composes them, what they do, and how they function, rather than what they mean (Deleuze and Guattari 2000:109).

As with all analysis machines, a network sensibility locks affect flows into a particular view. However unlike other methods, Markham and Lindgren (2014:36) argue that this view has not become so entrenched in our 'everyday ways of seeing that we lose sight of the frame itself'. By producing renderings through visualisation and diagramming, this has the effect of destabilising phenomena (Markham 2012:50). For example through re-rendering the Craigslist corpus as a network this allowed for a minor reading of advertisements as a relational field of concept-word-things.

The methodological benefit of using visualisations was that they have an element of exploration and play that draws out new relationships from field extracts, a process which Corner (1999:230) indicates is the final stage of mapping. With the network meta-data loaded into a visualisation package, for example, I was able to refocus on specific aspects and adjust the visualisation, and in doing so 'reveal ways of seeing otherwise' (Markham and Lindgren 2014:36). Rather than being a thinly disguised attempt at representativeness, the network became a performative visualisation, 'taking advantage of the way different information filters on the web demarcate the social' (Madsen 2012:40). For example the network-assemblage in Figure 3 is a product of my engagements with the field, starting from three main sites – Cam4, Craigslist and Grindr. Taking different points of origin, from a search engine as Månsson and Söderlind (n.d.) did, would have resulted in a different set of visualisations, and a different network-assemblage being mapped.

Though the use of visualisations was the main form of analysing materials, I applied further statistical methods to the resultant networks in Chapter five and six. In doing so I address Ackland's (2013:8) concern, highlighted earlier, that visualisations are

the first step in analysis, and need to be supplemented by quantitative empirical analysis. Drawing on metrics from SNA (Ackland 2013; Blondel et al. 2008; Hansen et al. 2011; Wasserman and Faust 1994), I analysed network-assemblages in terms of their romantic complexity by exploring their emergent structure as well as summarising them as complex wholes (Kwa 2002). However the use of case studies of sexuality assemblages provided a more baroque analysis in Chapters five and six. Furthermore as part of the discussion on commercial sex (Chapter seven), and in diagramming Guattari's four-fold assemblage in Chapter eight, multimodal elements of digital sexual practices were analysed. These elements included the architecture of venues, as well as some of the interactions and enunciations of MSM themselves. Here I used a Deleuzian inspired method of multimodal analysis. In the following two sections I address the romantic interpretation of network-assemblages through different SNA metrics, and how multimodal materials were analysed with/through Deleuze.

4.4.5 The romantic interpretation of networks using Social Network Analysis

SNA metrics and procedures were used to quantitatively analyse the network-assemblage maps produced in Chapter five and six, specifically the measures of centrality and clustering/modularity detection (Ackland 2013; Blondel et al. 2008; Hansen et al. 2011; Wasserman and Faust 1994). Table 4 gives an overview of SNA terminology used throughout the empirical chapters. Fox and Alldred (2015a:para.5.8) indicate that statistical procedures 'efface the complexities and divergences' in the events being studied, thereby limiting affective flows to those pre-set by statistical procedures. However the methods of network analysis I adopted in this study attempted to attend to complexity. Furthermore, as SNA is descriptive of networks rather than statistical in the sense that it relies on probabilities to determine the likelihood of claims, my interpretations were guided by the SNA rather than being determined by them.

Centrality measures identify an actors' position within a network (Hansen et al. 2011:40). There are numerous measures of centrality, the most commonly used

being degree centrality, which gives an indication of the number of connections a node has with other nodes (Hansen et al. 2011:72). However degree measures of centrality do not necessarily provide a good indication of a nodes importance within a network, merely an assessment of how many nodes it connects to. Betweenness centrality gives an indication of the bridging capacity of a node, meaning whether it lies on the path of travel between other nodes (Newman 2003:2). Nodes with comparatively high betweenness centrality, when compared to others in the network, are more influential because they function as bridging points when travelling between random sets of nodes (Paranyushkin 2011:12).

Table 4: Key terminology of Social Network Analysis giving both quantitative and qualitative assessment for each element

Element	Quantitative assessment	Qualitative assessment
Network structure	Degree distribution	Characteristic topological properties of the network.
Edges	Weight	Collocation, semantic relation, meaning.
Paths	Length, diameter	Set of connected relations.
Nodes	Degree	Complexity of a semantic concept or connectivity of media. Position in a semantic field.
Hubs	Centrality measures	Global importance of a node relative to the network. Node position in a local context, e.g. connection between complex semantic concepts or topics.
Sub-graphs	(see network structure above)	Complex semantic context encoded in interconnected semantic fields.
Modularity/clustering	Community detection in Gephi	Strongly connected components.

Source: Adapted from Drieger (2013:7), Table 1

An example of a node with high betweenness centrality would be Twitter in the network-assemblage in Figure 3. This high betweenness may relate to the social networking function of Twitter, which by intention is designed to foster connections and flows of concept-word-things between people. For example the mention function allows users to create connections between one another, whilst the hashtag function renders utterances searchable through the creation of keywords and

folksonomies. Time_period is an example of a node with high betweenness from the NTA in Figure 4. This class of concept-word-things had importance in terms of the function of Craigslist casual encounter advertisements, as I discuss in greater detail in Chapter six. In both examples, these nodes are important as bridging points between conceptual clusters, and are therefore junctions for movement through their respective networks (Paranyushkin 2011:12).

Modularity detection or clustering is a method of automatically detecting strongly connected nodes within a network, and can be used to illustrate any emergent structure or the clumpiness of nodes (Blondel et al. 2008). In terms of the statistical package used in this study (Gephi), the clustering detection process is known as community detection. The result of this kind of analysis is the splitting of any network into "communities", so called because of their communal tightly linked nature. However this usage of community is not to be confused with the usual sense of community used in digital research, as groups of individuals interacting around a common interest (e.g. Featherstone and Burrows 1995; Kendall 2002; Rheingold 1993; Smith and Kollock 1999). Given my focus on digital materials, and the methods I used, whether these communities of media reflected a communal nature or shared worlding for the men using them was not assessed; instead I focus on whether media were commonly used together.

In terms of semantic webs, in Chapter six, communities may be indications of conceptual groupings, of 'complex semantic concepts [or special topics] that are described by words which aren't likely to be connected to other semantic concepts' (Drieger 2013:11). In terms of the link network-assemblage in Chapter five, communities reflect groupings of technologies that were highly interlinked. In Banks' (2015:9) object-relation method, technology clusters were taken to represent 'discrete dimensions of the Self'. However in my analysis, clustering of media was interpreted as reflecting types of digital sexual practice – specifically their singularities.

In defining communities, qualitative exploration was needed to give an indication of what these semantic/technological groups were (Drieger 2013), by exploring why these particular concept-word-things mattered to one another (Banks 2015:9-10).

However in staying true to a minor analysis, I adopted a Deleuzian inspired approach to analysing and interpreting multimodal materials. It is this Deleuzian multimodal analysis that the final section of this chapter discusses.

4.4.6 Analysing multimodality through Deleuze

In this section I address the analysis of digital multimodality adopted in this study. In a review of ethnographic approaches to the Internet, Garcia et al. (2009:65) observe that there is an over-privileging of the textual elements of the Internet in current research, to the deficit of its visual, aural, and kinetic modes. The main field sites in the current study ranged from the predominantly text based Craigslist, to the multimodal setting of Cam4 performances. Though Cam4 and other paid cybersex venues have a textual interface, performers make full use of the aural and visual modes. However as Race (2015a:255) points out from his analysis of MSM digital sex-seeking venues, the textuality of media combines with images to generate 'new capacities, experiences and affective vectors'. From this I took that all modes should be treated as elements within the materialisation of digital sexual practices (Race 2015a:255). Within the current study this multimodality of text, still and moving image, sound etc. was analysed along the lines of affect, drawing on Deleuze (1997a, 1997b). However much like the relation between the Royal and minor mode, this move to affect through a Deleuzian analysis supplements 'existing repertoires of representational methodologies' (Lorimer 2013:76), rather than replacing them entirely. Similarly Coleman (2013a:17), in a study of images and power, concludes that it is important to unpack the discursive ideals running through visual culture in addition to its intensive non-representational aspects. There was therefore a place in my analysis for the interpretation of data in terms of the circulation of discourses.

Through his work on cinema, Deleuze (1997a, 1997b) generates a philosophy of images. As Lorimer (2010:241) states in a paper on analysing images through a more-than-representational approach:

> Deleuze provides radical new means of understanding and evaluating moving images, which dispense with critiques

> relating to signification or desire to explore how films can
> provide a sensual shock to thought

Though writing in relation to moving images, I suggest that these same affective resonances or sensual shocks can be found in all modes, to different degrees. For example Lecercle (2002) and Cole (2011) both argue that language has an affective dimension, alongside its meaning making potential. Deleuze's (1997a, 1997b) reading of cinema was therefore used to form the grounds for an affective reading of multimodal media assemblages.

Across his two volumes on cinema, Deleuze (1997a, 1997b) proposes two forms of image, movement-images and time-images, with each being present in different periods of cinematography. Movement-images are the production of movement (Conley 2010a), whilst time-images relate to images that are imbued with time (Conley 2010b) – explained in greater detail shortly. I have borrowed from Deleuze's writing on movement and time-images some of the more useful concepts in order to construct a toolkit for analysing multimodality, rather than sticking to the letter and word of his own analysis of cinematography.

As with his wider conceptual framework, Deleuze's (1997a) movement-images are an assemblage of three different types of image: perception-image, action-image, and affection-image. The perception-image creates a sense of drama by playing with the visible and invisible elements within the staging of action (Conley 2010a:180). In other words, the act of framing an image prompts perception by bringing certain things into view (Taylor 2013:49). The action-image 'organises and distributes movement in space and time' (Conley 2010a:180), being the duration of action or a sense of time (Lorimer 2013:64). Thirdly, the affection-image relates to what is felt (Lorimer 2013:64), as seen in close ups of faces (Taylor 2013:50). Implied in the movement-image is a sense of narrative, an unfolding of events, which though they may not be temporally linear, occur one after another (Taylor 2013:50). Therefore movement-images present their elements (characters) as responding to situations, 'thus creating the successive pattern of events that guides the story' (Posman 2009:43). It is this reactivity to events that has the effect of producing movement.

As an alternative to this narrative style, Deleuze (1997b), in his second volume on cinema, puts forward the concept of time-image. Taylor (2013:50) provides a clear summary of the time-image as being 'characterised by absence of plot, an emphasis on journeys and wanderings, and anonymised spaces rather than 'real' and recognisable spaces'. At this point it should be noted that the modalities I observed were primarily of the movement-image kind. They implied movement, and through various assemblages generated affects, however the majority lacked the time-image's absence of plot.

As an example of these different images, though there are several instances in Chapter seven where paid cybersex performances verged on the carnivalesque, and were therefore time-images, the majority of commercial sex performances ran on "scripts". Similarly profiles on Grindr and advertisements on Craigslist are material assemblages within the narrative of sex-seeking, incorporating into themselves future potentiality. They imply a point in the future, yet to come, where bodies meet. As Coleman (2013a, 2013b) indicates, it is these appeals to the future (i.e. the deployment of time-images), which generates affects. Furthermore, though some images and videos on user-generated pornographic sites show decontextualized sex acts, for example close-ups of oral sex, materials are then accompanied by some form of narration that gives them context, and therefore a plot.

There have been other attempts within the social sciences to translate Deleuze's concepts from his cinema series into analytical practice (e.g. Lorimer 2010, 2013; Taylor 2013). Lorimer (2013:71) indicates that the use of Deleuze to analyse the visual means learning to be affected by images, 'turning down the academic's instinct to detach and critique'. However getting swept up with the flow of affect is not enough, and Lorimer (2013:71) argues that the researcher needs to engage in a deconstruction of the syntax of the moving image, including an attention to types of shot, sound etc. Within the context of the current study I took this to mean that I explore the type of image-assemblages – perception, action, affect – that were active or even came to dominate the multimodal field within a given sexual milieu. For example in the case of a profile image from Grindr showing a topless man reclining,

Figure 5[17], the affect-image comes to dominate through the close-up on the man's body, to the relative exclusion of the wider shot.

Figure 5: 'Looking for Friends' - Man reclining, profile image taken from Grindr; Source Henry (2012)
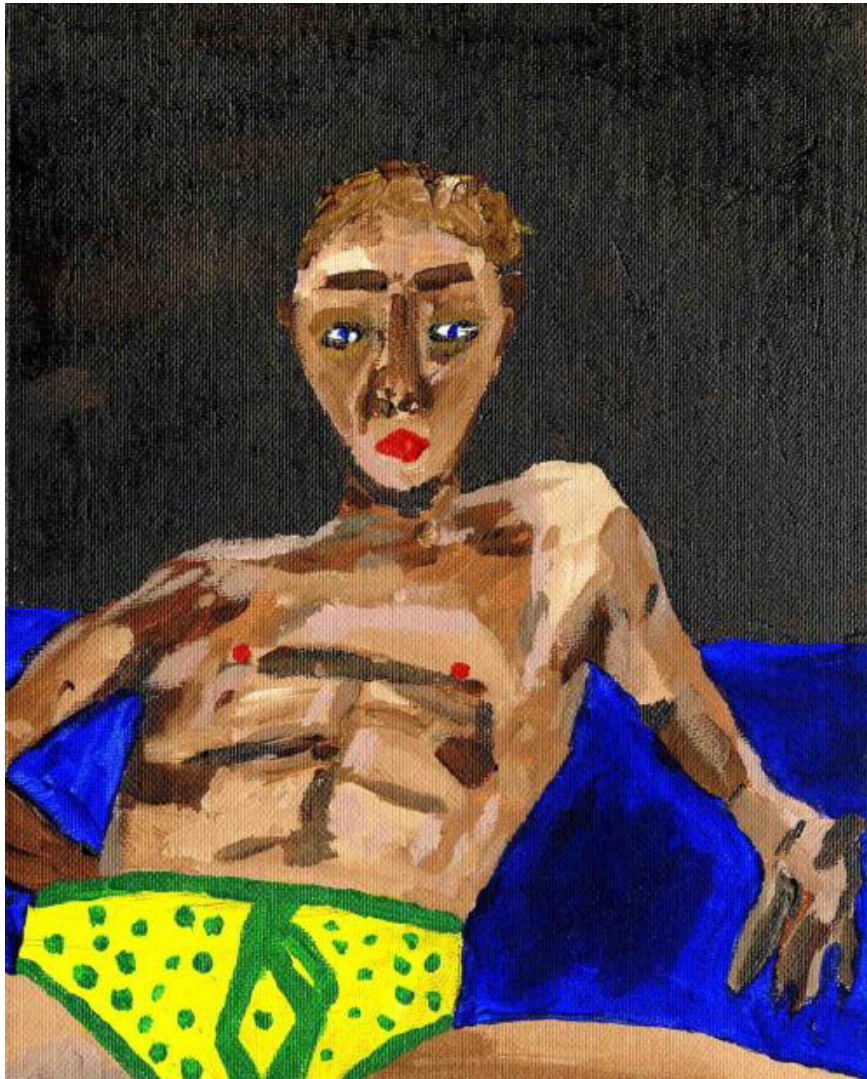
The Deleuzian inspired analysis of multimodal data I adopted contrasts with other post human analyses of visual media. For example Coleman (2008a, 2013a, 2013b), and Ringrose and Coleman (2013), explored the relations between bodies and images. The approach advocated by Coleman (2008a:175) sought to 'trace the becomings that relations with images produce'; meaning the way in which the

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[17] This image was purposefully chosen in order to highlight the aesthetic qualities of images online. The affective qualities of the digital image 'glow' (MacLure 2013b) through its rendering in different material forms – in this instance acrylic paint on board.

encountering of bodies and images generated 'knowledges, understandings, and [lived] experiences' (Coleman 2008a:175). Similarly in Ringrose and Coleman's (2013:128) joint work, the authors explore the ways in which things (including images and social media) come to affect bodily capacities, particularly 'the bodies' potentials for movement or fixity in space'. These approaches to visual media both, to an extent, map the actualisation of intensities in lived experiences, in the relation between images/media and bodies. In contrast, my analysis of multimodality focused on the virtual *potential* of digital materiality to generate these lived experiences. Ringrose and Coleman's (2013) exploration of how the visual can capture bodies was therefore useful in drawing attention to the virtual striations of digital materiality, and the potential connections these striations could produce (or hinder). Furthermore, the conceptualisation of images as involving the future as virtual potential (see Coleman 2013a, 2013b), was helpful in understanding the virtuality of different media assemblages, and how future assemblages are enfolded into the present. For example the different sex work assemblages generated with/through Craigslist in Chapter seven imply future sexuality assemblages to come.

An alternative post human approach to visual analysis, this time by Hultman and Taguchi (2010), focused on the materiality of the visual itself. Hultman and Taguchi (2010) conducted an analysis of images that drew attention to the non-human/material elements they captured. In the context of my analysis however, a complete move away from the human would not have been altogether analytically useful, given that human bodies were and are central features of many MSM's digital sexual practices e.g. profile images or user-generated pornography. However the general approach of opening up analysis to the possibilities of understanding phenomenon as emergent in a field of human and non-human entities, helped analyse data that were elements of digital material cultures. This approach added to Lorimer's (2013:72) final suggestion for a Deleuzian visual analysis, that materials must be situated within the cultural norms of the audience. For example in the context of MSM's digital sexual practices, these cultural norms can relate to interactional norms (i.e. the enunciations of others), but also non-human elements such as the venues themselves (i.e. their architecture/design features). In the case of

Figure 5, this image was situated on a grid of other men on the Grindr interface, and subject to norms regarding nudity on Grindr – see Chapter eight where I analyse these norms in greater depth.

4.5 Summary: The becoming of a minor method

Throughout this chapter I have approached research design as an assemblage of varying machines: the field machine, the gathering machine, the analysis machine, the presentation machine, and the ethics machine. Each of these machines linked up within the final research event assemblage to produce certain micro-political effects. The field machine determined the focus of study on digital materiality. The gathering machine resulted in a particular affective engagement with the field, through covert observation, insider-ethnography, and the extraction of elements from sexual milieus. Analysis and presentation machines that were attentive to a network sensibility, and which drew on visualisations, were purposefully used in order to open up the analysis to alternative forms of knowing MSM's digital sexual practices. These minor analyses sought to explicitly challenge dominant modes of social research into MSM's digital sexual practices – see Chapter three. Finally the ethics machine provided the justification for the effects of the research event assemblage on the digital sexual practices being studied (Fox and Alldred 2015a:para5.13, Table 1).

In Fox and Alldred's (2015a:para.6.12) new materialist stance to research design, it was suggested that in the course of conducting research, the event and the research hybridise. The design of my study was therefore as much influenced by my main research aim to undertake a minor analysis, as it was by my engagements with theory and the materiality of digital sexual practices. The use of digital ethnography enabled me to follow movements between theory and practice, traveling through rhizomatic connections as MSM went about producing sexuality assemblages and sexual affects. The drive to complexify the materiality of digital sexual practices through open data collections and analysis machines more attentive to network-assemblage ontology, attempted to de-territorialise affect flows through the research event assemblage. Having outlined the minor methods used in my study, the following four empirical chapters each contribute a map within the wider schizoanalytic cartography of

MSM's digital sexual practices. At the beginning of each chapter I outline a refrain of concepts that aids in theorising the materials contained within. In this first chapter, I discuss the network-assemblage of MSM's digital sexual practices.

Chapter 5 – The linkage of media within MSM's digital sexual practices

This chapter is the first in a series of four maps that come together to form a schizoanalytic cartography of MSM's digital sexual practices. The adoption of post human ontologies in building these maps (e.g. DeLanda 2006; Deleuze and Guattari 2000, 2005; Grosz 2008; Haraway 1991; Latour 2005) draws attention to the materiality of digital sexual practices as assemblages of words and things (Parisi 2004:71-72). Specifically, the post human marks a shift away from the anthropocentrism found in previous studies of these practices, outlined in Chapters two and three. The map presented in this chapter follows the links made between different media, as men went about producing sexuality assemblages and erotic affects in their own and others' bodies (Fox and Alldred 2013). In deploying the framework of network-assemblages, I explore how MSM's digital sexual practices can function as relational systems, and what these relations do. In doing so, I directly address the main research questions posed in this study: How can the materiality of MSM's digital sexual practices be researched differently (through post humanism and a minor mode)? And what does this different perspective bring to the study of these practices, and the practices themselves?

In the first part of this chapter I focus on digital sexual practices as they form a virtual possible whole, or network-assemblage. The principles and metrics of Social Network Analysis (SNA) are used to graphically map out media, and analyse linkages between them (Ackland 2013; Hansen et al. 2011; Wasserman and Faust 1994). In addition to examining the whole, vignettes of various passageways through the network are then provided. Following particular paths allows for an exploration of how intensities-bodies-sexuality flows through the network-assemblage, and their possible affects. By looking up and then down through the lens of romantic and baroque complexity (Kwa 2002), this opens up different viewpoints onto MSM's digital sexual practices. In order to connect this chapter with the aims of undertaking an alternative analysis of digital materiality, examples from within the network are

then drawn on that add complexity to the current literature. Specifically, my discussion focuses on sex-seeking profiles as a distributed phenomenon.

Flowing through this chapter are the ways in which assemblages of digital media form different types of space. In the last section of this chapter I speak directly to the formation of spaces through the methods used by MSM to overcome the striating norms of digital media. The conclusion to this chapter summarises the networked nature of MSM's digital sexuality, and the social sciences' need to attend to this given the increasing connectivity of digital media (van den Boomen 2014; van Dijck 2013). Having outlined the structure of this chapter, the following section provides a brief overview of network-assemblages and space, with these acting as the theoretical refrain for my discussion.

5.1 Theoretical refrain of network-assemblages and space

Network-assemblages are a framework for analysing space and agency in terms of the coming together of heterogeneous elements in the formation of 'precarious wholes' (Muller 2015). Elements within these wholes can detach and form other assemblages, owing them their precarious nature and lack of unitary identity (DeLanda 2006). As indicated in Chapter three, network-assemblages combine the relational ontologies of assemblages (DeLanda 2006; Deleuze and Guattari 2005) and networks (Latour 2005; Law 2008). In this chapter I deploy networks through the use of SNA and a network sensibility, to map and analyse connections between media. Assemblages however, come with powerful conceptual tools that aid in understanding how elements come together to form functional wholes. Germane to this chapter is a consideration of assemblages as they relate to the formation of space (Buchanan and Lambert 2005). This is because cultural representations of the Internet draw on notions of space, whether metaphorical or through the perceived merging of cyber and "real" spaces (Dzieza 2014).

In Chapter three I highlighted that Internet research is replete with tropes, predominantly as a place-space apart, a cyberspace where 'meaningful human activities occur' (Markham 2003:7). Linked to this other-worldliness on the Internet

are tropes of disembodiment (Muri 2003). However as Nunes (1999) and van den Boomen (2014) indicate, metaphors not only organise digital spaces but also generate them. For example the metaphor of the Internet highway adopted by Kim et al. (2001) in their study of Internet cruising, determines the kinds of movement and speeds with which MSM can engage in digital sexual practices. As a result of these conceptualisations of the Internet as different spaces, certain features become the focus of empirical research, particularly interactions that occur in and lead from these spaces (Markham 2003:8). However in reconfiguring metaphors of space through post human ontologies, spaces do not exist outside of bodies, or act as a container for meaningful interactions, but are instead composed of and with bodies, as assemblages (Bonta and Protevi 2006:146). As a result of the conflation of spaces with assemblages, exploring digital practices in terms of the types of spaces they assemble was pertinent to my analysis.

For Deleuze and Guattari (2005), spaces can take one of two mutable forms, smooth or striated, which each relate to different movements through assemblages. Smooth spaces are assemblages of free movement and intensity (Massumi 2005:xiii). In comparison striation is the process by which assemblages are delineated, categorised, and hierarchical (Bonta and Protevi 2006:154). As a result of striations, movement is confined and limited to pre-set paths (Massumi 2005:xiii). Nunes (1999:70) suggests that striation of the Internet occurs when applications create 'definite sites and point-to-point contact'. In the context of the MSM's digital sexual practices, an example of striation is the design of media that limits the options for user input. However, though digital media may have smoothed or striated aspects, as Deleuze and Guattari (2005:474) remind us, these spaces exist in admixture. Accordingly, the Internet and the spaces of digital media are typographically mixed (Bayne 2004; Nunes 1999). Analysing the formation of spaces is therefore about mapping how smoothing and striation enfold into one another (Buchanan and Lambert 2005:5).

5.2 Network-assemblage map of media connections comprising MSM's digital sexual practices

In the following sections I outline the map resulting from following the links between venues and practices. However MSM's digital sexuality assemblages included elements that did not produce erotic affects, or attempted to tap into or foster affects – see following section on lines of flight. These linkages were included in my analysis as they illustrated that the digital sexual practices observed were assemblages in the true sense, whose elements could not have been known fully beforehand. These affective lines of flight from sexuality assemblages also demonstrate that power-flows pulled them in different directions. Furthermore, as different actors assembled media to generate different affects, then these have been separated to acknowledge these nuances. For example commercial Facebook and Twitter have been separated from those of individuals using these SNS (Twitter and Facebook in Figure 6).

The network-assemblage in Figure 6 (located on page 140) has been separated into groupings of closely linked media (see discussion on modularity and clustering of media in Section 5.2.1). For clarity, this visualisation removed between group linkages. Instead the shadowed line in the background of Figure 6 indicates the linkages between communities – the thickness of these lines represents the number of interconnecting linkages between them. The data relating to the SNA can be found at Appendix D, whilst a larger version of Figure 6 can be found at Appendix E.

Though my commentary in this chapter draws on the final network diagram (Figure 6), my analysis reflected on all stages of the mapping process, which included hand drawn mind maps and visualisations in Gephi - see Figure 3 as an example, and also Appendix E where an early version of the complete network-assemblage produced in Gephi is provided for visual reference. Each of these maps revealed different laminations of sense making (Markham and Lindgren 2014:22). The first part of my discussion takes a somewhat romantic view of complexity using SNA metrics to consider the whole, before moving on to its more baroque aspects, being its singularity or uniqueness.

5.2.1 Overview of the network-assemblage: A romantic analysis using Social Network metrics

The final network-assemblage map (Figure 6) consisted of 56 different nodes – see Appendix D, Section D.2. Nodes represent digital media and technologies, with lines between them indicating the presence of a linkage. Within the network there were 209 unique relationships, with these being directional in order to illustrate flows between media. For example a pathway pointing from profile sites to Skype indicates that Skype details were provided on a sex-seeking profile. Examining the "context" of use of linkages meant that the possible future affects from such linkages could be mapped. Though network graphs can be undirected, my engagement in these practices suggested that not only were certain pathways through the network striated by particular uses, but that this striation also determined the direction of flows – of bodies, sexual intensities etc. Of particular importance to flows through the network were specific nodes, discernible through SNA metrics that relate to centrality, which I now discuss.

Centrality measures and lines of flight

Measures of betweenness centrality can be used to give an indication of nodes that are important in connecting sub-networks of media (Wasserman and Faust 1994). Removal of nodes with high betweenness centrality would result in changes to the network structure (Hansen et al. 2011:72). As observations started from three main venues, it might be expected that these initial points of entry would have greater centrality within the network-assemblage. Cam sites (i.e. Cam4) and classified ads (i.e. Craigslist) had the 2nd and 7th highest betweenness centralities in the network-assemblage – see Appendix D, Section D.1. As indicated in the methods section, the betweenness centrality measure for Mobile "sex apps" was low (zero in fact), despite being a central hub from which media radiated. Though mobile apps were important in terms of being a starting point for connectivity, without any connections being made into them they had limited importance as points of passage through the network-assemblage.

Twitter profiles belonging to individuals (Twitter in Figure 6) were found to have the highest betweenness centrality within the network-assemblage as a whole. Previous studies have indicated that Social Networking Sites (SNS) are aspects of digital sexual media ecologies (Cassidy 2013; Gudelunas 2012a, 2012b; Miller 2011). The strong cohesive presence of personal Twitter profiles in the network-assemblage is possibly a reflection of its importance in the formation of numerous different sexuality assemblages. In the following section I explore vignettes of media use which illustrate how SNS like Twitter formed parts of sexuality assemblages, specifically drawing on examples of MSM engaged in different forms of commercial sex work.

Sexuality assemblages pervade other assemblages, thereby stretching and pulling the network-assemblage in different directions. These deformations arose from the enrolling of media that generated lines of flight (Deleuze and Guattari 2005). In this case, lines of flight were movements away from what could be considered the creation of erotic affects (i.e. sexual arousal), to the formation of other affects. For example there were a number of profiles on mobile "sex apps" where men included links to their profiles on charity fundraising websites. These links siphoned off intensities, channelling them into different assemblages i.e. that of charitable giving. However there were other examples from across the network-assemblage that illustrated potential pathways for the channelling of sexual intensities into more capitalistic assemblages. Again from mobile "sex apps", linkages were provided to Twitter and Facebook accounts that were created in order to promote commercial goods and services (Commercial Twitter and Commercial Facebook), for example jewellery making and nightclub promotion. I pick up these capitalist striations of the network-assemblage in Chapter seven, where I discuss them in relation to MSM's engagement in digital sex work.

The network-assemblage is the summation of these different micro movements that form in the linkage between media. The topography of this emergent whole will now be explored in relation to communities of media within the network-assemblage using the metrics of modularity, density, and path distances, to comment on the possible and actual dimensions of the network-assemblage. However rather than representing discreet practices, the following communities are illustrative of MSM's

different engagements with media and are used as ways of summarising their networked nature – and my observations in the field.

Communities/groups of media within the network-assemblage

In order to give some indication of the emergent patterning of linkages observed across the network-assemblage, I applied a modularity detection procedure in Gephi – see Blondel et al. (2008) for a description of the statistical procedure. Though community detection is sensitive to the layout of networks, subsequent testing using different runs of the analysis produced generally similar community features. As indicated in the methods section, SNA does not use probability testing to derive the best-fit model, and is as much a descriptive form of analysis as it is statistical. Therefore a layout was chosen that illustrated features observed in the field. For example, classified ads (e.g. Craigslist) and profile sites served the same functional purpose in the network; web-based sex-seeking. They could therefore logically be grouped together as a particular kind of assemblage (Bottom left of Figure 6). Furthermore, cam sites and personal Twitter profiles (Twitter) were observed to co-occur on a number of occasions – see vignettes in Section 5.2.2.

In addition to these features, a layout was chosen that maximised the modularity statistic, being an indication of the partitioning of a network (Chen 2014) – see also section on community types and quality later in this chapter. A five-community solution was chosen that will be referred to throughout the remainder of this discussion. In order to aid in the interpretation of these communities, Table 5 provides details of the number of media (nodes), the number of within community connections (edges), and finally the nodes (media) with the highest betweenness centrality, for each community.

Table 5: Summary of communities, indicating size (Number of nodes), within community connectivity (Number of edges) and the nodes with the highest betweenness centrality within each group; Sorted by number of edges

Community or group	Number of nodes	Number of edges	Node with highest betweenness centrality
Commercial interests	11	29	Commercial Facebook
Blogging	13	28	Tumblr – blog
Web-based sex-seeking	12	23	Classified ads – Profile site
Paid cybersex	12	21	Twitter – Camera site
Mobile "sex apps"	8	8	Telephone

Summary of media communities

As already highlighted in the preceding section, one group identified within the network-assemblage was based around the digital sexual practice of web-based sex-seeking (Bottom left in Figure 6). This group was distinguished by the dominance of profile and classified ad sites in terms of betweenness centrality. Findings from other studies of MSM's sex-seeking practices have shown that men engage one-another via web-based venues, and move to other media in order to continue and progress their interactions (Brown et al. 2005; Davis et al. 2006). Though communicative media were linked with profile sites and classified ads (see Section 5.3), for example through the exchange of BBM codes and Skype details, the more singularising connections that made this community distinct were linkages not previously considered in the literature. Below is an example of such a linkage from an advertisement placed on Craigslist:

> ***tight fit bum*** - send me a message through here or on Facebook. you can find me by searching *XXXXX* (Craigslist M4M → Facebook, advertisement, 2013)

Here the man placing the ad directs the viewer-user to his Facebook profile by giving what is presumably his real name – anonymised here to XXXXX. In Gudelunas' (2012:360) study, it was found that MSM would cross reference their partners from more "sexual" venues by searching for them on SNS. However here the advertiser directly opens up his social network to the viewer-user. In other examples of media deployed in web-based sex-seeking, links were made to profiles on user generated pornographic sites (e.g. XTube), or the details of Instagram accounts which contained pornographic images were provided. These examples, and those explored in detail in

the following section, illustrate the diffuse nature of web-based sex-seeking as involving a number of media.

Personal Twitter profiles had the highest betweenness centrality within the network-assemblage. However Twitter, alongside cam sites, formed entry points into a distinct community, which I relate to the practices of paid cybersex (Top right in Figure 6). Through my observations of camera performance venues (i.e. Cam4), both of these media were found to co-occur regularly; performers engaging in paid cybersex used Twitter in order to organise performances. The details of this particular social media linkage, and the potential intended affects, are explored in the second vignette in Section 5.2.2. The other media within the paid cybersex community illustrates the more unique connections that performers' used. For example during one cybersex session where two performers engaged in penetrative sex, one of the men generated a series of polls on a website (Poll website) that enabled the viewer-users to vote on different aspects of their performance: 'WHO'S SEXIER ?', 'Is Tony bossy?', 'What did you think of today's double fuck show?' (Poll website, title of polls, 2013). These polls were then linked to directly from the cam site. During another performance, where a male performer masturbated to camera, the man directed viewer-users to a website where they could ask him questions (ask.fm): 'ask.fm//XXXXX send your questions there' (Cam site, chat dialogue, 2013). The potential affects being sought here may have been to reduce the number of questions being asked of the performer who had been barraged by questions from the audience regarding his sexuality.

Though a commercial blog was included in the paid cybersex community, this blog was involved in the circulation of affects through a cam site. The blog was owned by the camera performance website itself, and the particular post being linked to advertised one of the performers operating via their site. A circuitous series of linkages between the performer's profile, the blog, and back to the profile were used, which generated affects through the movement of traffic (i.e. bodies) back into the cybersex venue. As these varied examples indicate, the majority of the media within this community were used interactively (by different actors) in the process of engaging in paid cybersex performances.

Though personal Twitter profiles had the highest betweenness centrality in the network-assemblage, the various commercial uses of Twitter and other SNS formed their own distinct community (Bottom middle in Figure 6). The particularly strong commercial focus of the media within this community (i.e. such as promoting club nights or linking to paid pornographic sharing websites), illustrates how social media are adopted for commercial purposes. In addition to being centred on commercial interests, this community displayed the highest number of internal connections amongst the different communities identified (Table 5). As such, the commercial interest community was reminiscent of the dense networks deployed by the online pornography industry found in Johnson's (2011) study. These sub networks were implicated by Johnson (2011:189) as being a means through which the pornography industry ensnared consumer choice. SNS may therefore act as bridging points that enable dense commercial sub-networks to intersect with the digital sexuality assemblages of MSM. A similarly dense community within the network-assemblage I related to the practices of blogging, or sex blogging.

Tumblr and blogs were the nodes with the highest betweenness centralities within the community related to blogging (Top left in Figure 6). However the practice of sex blogging was not just centred on specific blogging venues (e.g. Blogger) and visually orientated blogging services (e.g. Tumblr), but also SNS that had been adapted and used in a blog format (i.e. Facebook blog and Twitter "porn" blog). For example rather than creating a profile about a person, Facebook was used in one instance to post images of semi-nude men, and in doing so it replicated the format of a more conventional blog. Furthermore, this Facebook blog was linked to from the Tumblr account of a "porn" blogger, thereby extending the blogger's presence into different media and increasing their potential to intersect different flows of (male) bodies. Rather than being aimed at writing the body online, here blogging was primarily used as a means of generating collections of online pornographic materials, which included images and videos from other blogs and commercial pornographic websites. However, there was also an element of user generation of pornographic materials, and in Section 5.2.2 I explore the use of Snapchat in combination with Tumblr, in the production and dissemination of these digital materials.

The density of the blogging community, in terms of number of within community connections, was almost the same as the commercial interest community, 28 and 29 edges respectively. This therefore illustrates that both practices either rely on, or foster similar affects, being the circular flows of bodies through different venues. However as indicated by the thinness of the inter-community line running between the commercial interest and blogging community, these two groups were relatively independent. This may imply that the sex blogging practices observed in this study had not (yet) been colonised by commercial networks. The linkage to commercial pornography sites from Tumblr within this grouping reflected the appropriation of professionally produced pornography in the assemblage of sex blogs.

The final group of media highlighted by the community detection function in Gephi I relate to mobile sex-seeking (Bottom right in Figure 6). In terms of the number of media this was the smallest of the groups identified, containing 8 media. It should be noted that rather than mobile apps being passageways into this community, the use of telephones had the highest betweenness centrality (see Appendix D, Section D.1). However in terms of the flows of bodies between media within this community, mobile "sex apps" were central, with apps forming an axial point from which media radiated. Though observations found that the practice of mobile sex-seeking used linkages to SNS (e.g. Facebook, Twitter, and Instagram), within the current map of observations, these links were not unique to this community, instead being more singular to web-based sex-seeking.

Figure 6: Network-assemblage diagram with community detection applied; Communities are circled and labelled, and the main linkage between communities is shown in grey in background; Larger version available at Appendix E

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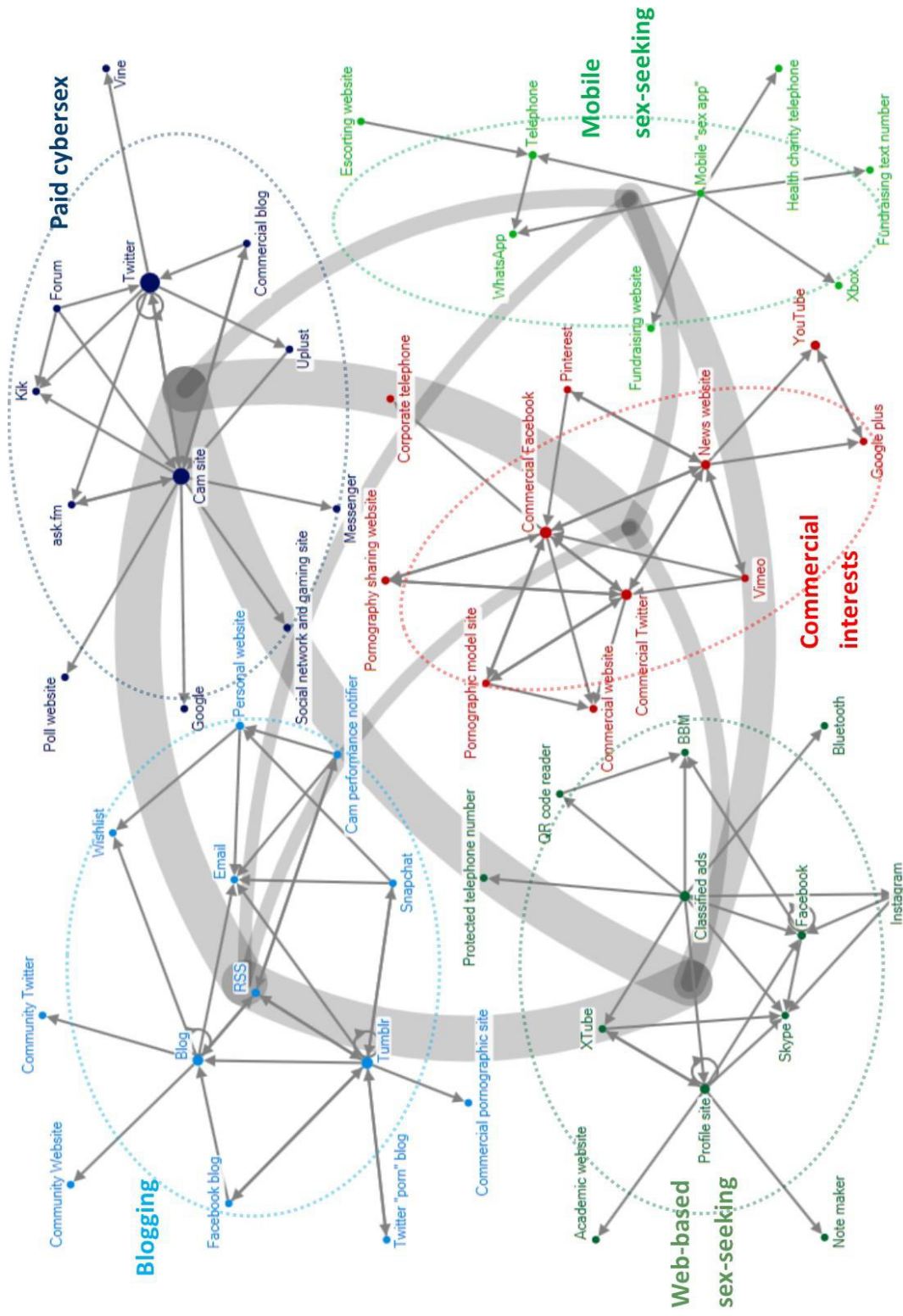
Community types and quality

The modularity metric in Gephi can be used in order to measure the quality of communities detected (Khokhar 2015:130). A modularity value between 0.3 and 0.7 is commonly found in social networks, with values above 0.3 being a good indication of there being structure within a network (Newman and Girvan 2003). Having a modularity value of 0.301 (Appendix D, Section D.2) suggested that the network-assemblage had some limited structure, supporting to an extent the demarcation of the network into particular groupings. More generally however, the layout that produces the highest modularity for a given set of nodes is optimal (Chen 2014), with this being used in choosing the initial community solution.

Several of the communities were 'open' (Borgatti et al. 2009:894), meaning that they were focused around a central point from which other media radiated e.g. mobile sex-seeking. Media that radiate from a central hub could be interpreted as being unique media that are not connected via other means, or represent "dead ends" in terms of linkages e.g. links to fundraising websites or Xbox usernames within the mobile "sex app" community. Alternatively 'closed' communities reflect densely interlinked media (Borgatti et al. 2009:894). Examples of closed communities were the commercial interests group (Bottom middle community), and that associated with web-based sex-seeking (Bottom left community). Despite the different relationships between media, both open and closed communities illustrate that the digital sexual practices observed were a dispersed phenomenon spread out over several media, rather than being limited to isolated venues.

The density of the network-assemblage – measuring the actualisation of the virtual

The density measure for the network can be interpreted through a Deleuzian lexicon as giving an indication of the proportion of virtual possible edges or connections that were actualised. By actualised, I mean that a linkage was made between media by one of the men in this study. In this case, roughly 7 per cent of the possible edges were actualised in the network-assemblage (Appendix D, Section D.2). This sparsity may be indicative of the striated nature of the digital sexual practices explored in my

study. High-density graphs reflect greater levels of connectivity, which in the case of MSM's digital sexual practices would imply complete connectivity, a lack of heterogeneity, and therefore a lack of patterning. The low density of the network may also reflect the method of data generation.

The links I explored were explicitly made by MSM through their digital traces, for example by giving usernames and links to other media. However this misses out the linkages made when digital sexual practices move into one-to-one communication. The network-assemblage mapped out in this chapter therefore forms the "public facing" digital sexual network-assemblage – though I have on occasion supplemented these connections with insider-ethnographic accounts. This publicness may influence the types of linkage observed. Though cyberspace offers hidden spaces for underground activities (Bonta and Protevi 2006:96), research has consistently highlighted that the digital spaces of MSM are subject to a panoptic gaze from other users (see Mowlabocus 2010a). This gaze therefore striates these space and has the potential to limit the public expression of certain aspects of sexuality. Opening the network-assemblage to private communications may highlight different kinds of connections.

Path distances – measuring the size and complexity of connectivity

The average path distance of the network gives an indication of the average distance (measured in number of edges traversed) between any two nodes, or how closely media are used to one another (Hansen et al. 2011:74). Having an average path distance of 2.4 (Appendix D, Section D.2) indicated that media were on average just under two and a half edges away, and as such were fairly directly interlinked. A high average value would suggest that complex pathways could be taken between media. However in this instance, the simple pathways suggest that digital media form directive functional assemblages. For example cybersex performers linked to Twitter in order to engage with their fan base, and on Craigslist, advertisers included their telephone numbers to progress interactions. Linkages were therefore doing work within their respective assemblages, and were not parts in the formation of a larger communicative web i.e. as part of digital sexual communities. Additional metrics

produced through SNA support the assertion that the digital sexual practices observed in this study were striated into functional patterns of use.

The diameter measure gives an indication of the maximum path that can be taken between two nodes, or a random walk through the network – and therefore its diameter (Hansen et al. 2011:73). Within the network-assemblage, the number of linkages required to pass from one side of the network to the other was 5. This diameter suggests that despite there being instances of complex enrolments of media within individual digital sexuality assemblages, these were relatively limited in scope. Having a large diameter would suggest that many media could be enrolled in any particular sexuality assemblage. For example had this study focused on digital practices related to the formation of particular MSM digital sexual communities, this may have resulted in a larger number of reciprocally linked media, and therefore a larger network diameter. A low diameter suggests that linkages performed direct tasks within MSM's sexuality assemblages, for example authenticating sexual partners or shifting interactions elsewhere (Brown et al. 2005; Cassidy 2013; Gudelunas 2012a).

In order to illustrate actual pathways of linkages through Figure 6, and the different functional assemblages these produced, the following section highlights three vignettes of media usage. Rather than ideal types, these vignettes contribute to the baroque analysis of complexity by illustrating the uniqueness of pathways. This singularity enabled MSM to assemble media to produce particular affects and sexuality assemblages with/through viewer-users. As the romantic analysis using SNA suggested (i.e. through the metric of path distance), the majority of linkages between media were functional and simple. The following vignettes therefore include some of the more complex pathways of linkages deployed by MSM, in order to illustrate the limit space of the network-assemblage.

5.2.2 Three vignettes of the enrolment of media within sexuality assemblages: The baroque complexity of MSM's digital sexual practices

Vignette 1: Blurring pornography through Tumblr and Snapchat

This first vignette of digital sexual practices illustrates linkages between social networking site Tumblr, and mobile phone based application Snapchat. It therefore reflects media and linkages within the blogging community (Top left in Figure 6). Through this example I follow the networked-practices of porn blogging, and the blurring between the production and consumption of pornography that this generates. This vignette begins on Tumblr, a microblogging platform where users can share text posts as well as other multimedia content. I was directed to the page by a partner who sent me a hyperlink to the Tumblr account via WhatsApp. The microblog focused mainly on action-images, containing primarily videos and images depicting graphic sexual intercourse between men. Text from the biography section of the Tumblr blog gave some indication of the sexual content of the page: '18+ ONLY. This is the X rated social network of the community'. The images and videos on the Tumblr feed originated from a number of different sources. For example content appeared to come from amateur and professional sources posted to media sharing websites such as XTube, commercial pornographic venues, in addition to amateur videos produced by the microblogger himself. Furthermore, as with other forms of social media, some of the materials were re-posted from Tumblr feeds created by other users.

Amateur videos were those videos that appeared to be produced by non-corporate users. Aesthetically they were discernible by the comparatively lower quality of the videos and the "ordinariness" of the male bodies on display, as also found by van Doorn (2010) in his study of user-generated pornography. This amateurism contrasts with the commercial pornography produced by corporations, which aesthetically displayed greater production values and, as Paasonen (2010) also highlights, formulaic sexual tastes. It has been argued by Porn 2.0 scholars that the distinction between the commercial and the amateur has become increasingly blurred, in part due to the borrowing of the amateur aesthetic by mainstream pornography (van Doorn 2010; Paasonen 2010, 2011). However despite the blurring of pornographic

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genres, Paasonen (2011:88) has indicated that amateur and commercial pornography produce different 'carnal resonances' or affects in their relations with bodies. Paasonen (2011:89-90) implicated the (im)material labour that goes into different production processes as being generative of these different resonances. It is these production processes that I now discuss in relation to Tumblr-snapchat linkages.

Amongst the cornucopia of images and videos, the microblogger had included their username (Bare57) on the messaging application Snapchat. Snapchat is a general audience application where users can send one another images, videos, and chat. However unlike other messaging services, content is only available for a limited period of time once opened. I added Bare57 to my list of friends on Snapchat, enabling me to receive content from him – and, should I have wished, send Bare57 images and videos of myself. Over the period of observation, several videos were sent by Bare57 to his friends/followers. The content of these videos included collections of short 10 second clips, in series, depicting Bare57 engaging in sexual intercourse with various men. Videos predominantly showed what appeared to be entire sexual encounters, for example entering a room, engaging in anal intercourse, ending in ejaculation.

Unlike the other content on Bare57's Tumblr feed that *appeared* to be amateur, the content on Snapchat was unquestionably produced in the moment. The technological assemblage of Snapchat, at the time, only allowed users to send live content. However in addition to being another avenue to disseminate user-generated content, Snapchat also formed a method through which such content could be collected. Within Bare57's Tumblr feed was a post indicting how users could submit their content: 'The real Snapchat #bare57 featured members. Which one is your favourite? Submit your pictures on Snapchat: Bare57. You must include your age and #bare57 in the live photo' (Tumblr → Snapchat, blog post, 2015). I encountered other examples of these linkages from Tumblr, to Snapchat, and then to Tumblr; a circular loop that enabled users to submit their content to pornographic Tumblr feeds.

Through the co-opting of elements from various other Tumblr feeds, user-generated sites such as XTube, and also other video archives, pornography on Tumblr could be viewed as an assembled practice in the production of sexual affects in the consumers of these feeds. However the consumers of porn blog feeds can themselves become the producers of content, either through submitting their own videos and images, or through the practices of re-posting content from other feeds. In addition to the blurring between commercial and amateur pornography, there is therefore a concomitant blurring between producers and consumers of pornography, which is characteristic of contemporary Internet practices (Mowlabocus 2010c, Paasonen 2010, 2011). Paasonen (2010:1297) has linked this blurring to 'shifts in the technologies of producing, distributing and consuming pornography'. This vignette has therefore illustrated a mechanism for this shift, through networked practices, such that MSM became both spectacle and spectator within pornographic Tumblr assemblages.

Vignette 2: Networking a sex worker identity on Cam4

The second vignette is illustrative of media and linkages largely within the paid cybersex community – whilst also drawing on elements of the blogging community. It starts from the profile of ArmyDave on a cyber-sex website. Within the body of the profile, ArmyDave included a link to his Twitter page. This link was provided in two forms: firstly as a written link (his Twitter name, @ArmyDave), and secondly using the social media field icons – these being officially sanctioned ways of advertising social media within this website. ArmyDave made the function of the Twitter links explicit: 'FOLLOW ME ON TWITTER FOR UPDATE ON SHOW SCHEDULING AND OCCASIONAL PICS! @ARMYDAVE' (Cam site → Twitter, biography section, 2014). Also included on the profile was a link that took the user to an Amazon wish list. A wish list is a list of items highlighted on the Amazon website. Items from the list can be purchased from the Amazon store on behalf of the list creator, in this case ArmyDave. From time spent in this and other paid cybersex venues, I came to understand that the purpose of providing a wish list was to enable alternative forms of exchange, instead of the token system that the majority of cam sites operate.

Following the Twitter link took me to ArmyDave's Twitter profile, which continued with the armed forces theme. The most prominent image on his account was of a man, presumably ArmyDave, in his uniform, appearing across the top of the webpage. In addition to this large image, the Twitter feed also had a profile picture showing a man topless in a selfie style[18], flexing his muscles. Within the Twitter feed there were messages that alerted ArmyDave's followers to upcoming cybersex performance times: 'Live #CAM4 show in 15 cam4/ArmyDave' (Twitter → Cam site, tweet, 2014). Furthermore, these Tweets gave an indication of the style of the performance, for example 'home workout session'.

In the biography section of his profile on the cam site ArmyDave indicated that he identified as being straight, elaborating that although he 'loves that the gays like to watch him', this is where his male interactions end. Straight identifying men going "gay-for-pay" in this way is not unique to cybersex, and has been found in other forms of sex work, particularly in the pornography industry (Bozelka 2013; Escoffier 2003, 2009). However engagement in "gay-for-pay" pornography has been found to be dependent on the male worker separating their work from "real" sexual persona – by producing a situational sexuality (Escoffier 2003). The assemblage that was ArmyDave's profile, the combination of images and the linkages to other media it drew on, underwent this same situational sexuality through various territorialising movements. This was achieved by drawing attention to the performative and commercial nature ArmyDave's sexuality, focusing on the exchange of money/goods for sexual acts i.e. the use of the wish list.

By deploying links to Twitter to promote his performances, and using the wish list to open up different avenues of exchange, this had the effect of turning ArmyDave's sexuality assemblage into a commercial sex assemblage (see also Chapter seven). For example Twitter was deployed to target specific audiences, using the mention function to link to specific Twitter feeds targeted at gay men: 'Going live at 10PM EST http://cam4.com/ArmyDave see you all then! @cam4_gay @Cam4' (Twitter → Twitter, Twitter → Cam site, tweet, 2014). Here ArmyDave provides the time and link

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[18] Selfies are photographs that frame the photographer in shot, either by holding the camera at a distance to the body or capturing their reflection in a mirror.

to his performance within the tweet. Tweeting may therefore have been an attempt to generate 'contagious affects' through the Twitter-verse (Sharma 2013). The use of the mention function in Twitter taps into other Twitter streams, in the generation and sustainment of ArmyDave's (commercial) sex assemblage.

The role of Twitter within ArmyDave's commercial sex assemblage is relatively simple. The viewer is directed to Twitter for future performance times, and Twitter points back to the cybersex performance. Similarly the viewer is directed to the Amazon wish list, which then opens up future private performances within the cam site. Twitter and the wish list act as circular adjuncts to ArmyDave's cybersex profile, which is the main focal point for sexual affect and enunciation. However the enrolment of these media illustrates a level of strategic deployment of networked sociality, and therefore its assemblage to produce commercial sex. In this vignette, the performer was able to draw on the virtual potentialities of different media as elements within a commercial sex assemblage. Movement back and forth between these different media platforms created a dense web of ties, and in doing so this performs the work of creating a solidified identity for the performer – much like Banks' (2015) suggestion that communities of media create a gaming identity. However as highlighted in my earlier discussion of assemblages in Chapter three, technologies do not merely add their properties but generate different assemblages through symbiosis (Currier 2003:325).

The emergent properties of the Twitter-machine are advertised as allowing users to 'Connect with your friends — and other fascinating people. Get in-the-moment updates on the things that interest you. And watch events unfold, in real time, from every angle' (Twitter 2015:no page number). Within commercial sex assemblages, the virtual potentialities of Twitter are actualised differently. In the example of ArmyDave, the communicative potential of Twitter to 'get in-the-moment updates' was used for strategic purposes, in order to promote his performances, assemble an audience, and thereby increasing the connectivity of his commercial sex assemblage. Along similar lines, Amazon wish lists are marketed as allowing users to 'Save ideas and products' for future reference and for sharing with others (Amazon 2016). However as with other performers observed on cybersex websites, ArmyDave

incorporated the wish list into his commercial sex assemblage in order to overcome the exploitative practices of the website operators that striate exchanges via on-site payment systems using tokens – see Chapter seven for a more detailed discussion of camera performances. In contrast to the simple yet strategic enrolment of media into sexuality assemblages, the third and final vignette illustrates the deployment of media in more complex pathways.

Vignette 3: Assembling touching encounters on/with Twitter

As with the above example, this final vignette explores the formation of one man's commercial sex assemblage. However unlike ArmyDave, the man was directly involved in what Walby (2010, 2012) called touching encounters i.e. escorting. Twitter became an element in ArmyDave's commercial sex assemblage as an adjunct to his camera-performance, as a means of maintaining a fan base and hooking up to different sexuality assemblages. The following vignette shows this same hooking up of commercial sex and sexuality assemblages, though with a greater emphasis on the intermediary role of Twitter as it becomes one in a range of alternative venues for the direct solicitation of clients. This vignette starts from the Twitter profile of a bisexual man in his late-30s (@Steward_Love). He described himself as a professional escort and masseur, and in addition to this short introduction, @Steward_Love also included his telephone number.

Within the main body of the Twitter profile there were semi-regular tweets at least once every week. Occasionally there was a spate of activity where tweets were placed repeatedly within a single day. Tweets predominantly included a description of @Steward_Love, including his approximate location (i.e. postcode region such as SN1), in addition to his telephone number. Hashtags were also included which rendered these tweets searchable. The following is an example of such a tweet: 'huge cock smooth ass in Swindon SN1 this week 01234567890 #Escorting #BBBH' (Twitter → Telephone, tweet, 2013). BBBH is an acronym for Bareback Brotherhood, a group of MSM who engage in unprotected anal intercourse – barebacking. The use of #BBBH may have been a way of affecting certain bodily encounters with other #BBBH group members, by indicating that the escort was open to unprotected sex with

clients. In addition to textual elements as ways of affecting interaction, @Steward_Love's tweets also contained images, presumably of himself, which usually included a face picture accompanied by a picture of his full erection. Here Twitter helped hook up the escort and clients' sexuality assemblages, with the images acting as virtual amplifiers that generated 'carnal resonances' (Paasonen 2011) in their relation with viewer-user bodies.

On other occasions, rather than provide his direct contact details, @Steward_Love would include the link to one of either an escorting website, or a link to a classified ad site much like Craigslist. However when linking to the escorting website, the mention feature on Twitter (the "@" function) was used so that the tweet would also appear on the commercial Twitter account for the particular escorting website mentioned in his tweet (e.g. '@SwingFree.com'). As with ArmyDave, linking to other Twitter feeds increased the potential contagious affects from his tweets, extending them beyond the list of followers already amassed by @Steward_Love through his own Twitter account.

The escorting websites used by @Steward_Love enabled users to create profiles which acted as points of reference for future sex work engagements. Profiles on these sites outlined the sexual activities the sex worker was willing to engage in, their rates expressed as a function of time (e.g. £40 per hour), in addition to further biographical details such as age, gender, and orientation. Much like sex-seeking profiles, the user was also able to include images in their profile. As with the tweets, these included images of @Steward_Love's face, body, and full erection. A functionality of one of the escort sites was the ability to send the profile creator an Email via the website, however in addition to this method of contact, @Steward_Love also included his telephone number in his profile. The classified ad website offered a different set of virtual possible affordances, and was striated in slightly different ways. In contrast to the escort website which allowed direct communication between the viewer-user and profile creator, the classified ad site generated stutters in the affect flows of viewer-users.

Though the ad site included a hyperlink to a telephone number (Protected telephone number) in order to contact @Steward_Love, once clicked, the number given was a

redirection service and was not his actual number. This therefore reflected a level of striation built into the site design not seen on the escort site, as the user-viewer was forced to engage in this additional practice in order to contact the escort. The redirection service would have provided @Steward_Love with a level of anonymity, had his number not been referenced repeatedly on his Twitter account. However this service also created a temporary moment of arrest in flows of bodies and intensities, which then generated affects from which the site owner could extract value. In order to call @Steward_Love to arrange a touching encounter, this would have incurred an additional calling charge, at £0.51 per minute. This example supports the literature, in illustrating the various ways in which capitalism can generate striations in web architecture, through which to manipulate sexual affects (Aslinger 2010; Campbell 2005; Light et al. 2008; Mowlabocus 2010a). In Chapter seven I explore in greater detail these corporate striations as they were encountered in my study.

In the preceding section the network-assemblage of digital media was explored using the principles and metrics of SNA, and through vignettes of media in use. This generated both a romantic and baroque view of complexity, exploring the structure of the network-assemblage along with its singularity. The aim of adopting a network-assemblage framework and a network sensibility was to illustrate the complex material interlinking of MSM's digital sexual practices. In order to progress this sensibility further, I now discuss sex-seeking profiles through the lens of complexity. Transitioning from web-based profiles to contemporary forms of mobile "sex apps" such as Grindr, my discussion over the following sections illustrates the shift in profiles and digital sexuality, as they have become a distributed (networked) phenomenon.

Within the network-assemblage, both web-based sex-seeking venues and mobile "sex apps" were present within distinct communities of media – bottom left and bottom right communities within Figure 6, respectively . As indicated by the thickness of the inter-community line connecting web-base and mobile groups (shadowed line at bottom of Figure 6), these two communities were interconnected – potentially reflecting shared media in the practice of MSM's sex-seeking. Despite being situated within different communities of media, both profile sites and mobile "sex apps"

demonstrated high degrees of connectivity with different media. This connectivity problematises the view of MSM's personal profiles adopted in the extant literature, which I now address.

5.3 Complexifying the personal profiles of MSM

Studies exploring MSM's sex-seeking websites and profiles focus on their construction, make-up, and meaning (e.g. Carballo-Diéguez et al. 2006; Dowsett et al. 2008; Grov 2006; Gudelunas 2005; Jones 2009b; Payne 2007; Nodin et al. 2011; Tewksbury 2003). Regardless of the different ways into the study of the materiality of sex-seeking profiles, they are considered in relative isolation from other venues and practices, and the materiality of these profiles is left unquestioned. From a Deleuzian perspective this narrative of technology use misses out on the sense of vibrancy of technologies, when viewed as assemblages. If life stems from the assemblage of things rather than being an innate quality of something, as Dema (2007:para.3) suggests, viewing profiles as complex assemblages alters their sense of liveliness.

Rather than existing as isolated aggregates of words and images, Figure 7 illustrates the sub-network in which profiles are located within the network-assemblage. As can be seen, profile sites appear on the periphery of, but still included within a dense web of media. There were 6 observed linkages made by MSM to their profiles (in-degree) and 13 links from profile sites to other media (out-degree) (see Appendix D, Section D.1). Through the lens of complexity it could be suggested that through these linkages profile sites were agentic in the sense that they were actants within numerous different sexuality assemblages. In the following examples, Craigslist and Twitter were each linked to profiles on web-based sex-seeking venues:

> I'm very experienced as a kink top and sub - check out my XTube videos of me topping, the profile name there is BurnleyDungeon, or check out my 250+ photos on Recon - same profile name (Craigslist M4M → XTube, Craigslist M4M → Profile site, advertisement, 2013)

> Lad in London who usually ties up Twinks, but can sometimes be persuaded to switch roles ;) I have my own playroom. Also

on http://kinkylondon.tumblr.com, London, recon.com/kinkylondon (Craigslist M4M → Tumblr, Craigslist M4M → Profile site, advertisement, 2013)

These links could be interpreted as tokens of authenticity, in providing more visual evidence of the man advertising, as in the first example. More generally they offer methods of affecting further interaction through pathways for communication, as suggested by previous research (Brown et al. 2005; Cassidy 2013; Mowlabocus 2006, 2010a). However viewed through a Deleuzian framework, a profile is a little desiring production machine in its own right, as well as forming an element in other assemblages – see Sharma (2013) for this assemblage perspective applied to Twitter. By noting these linkages, this challenges the predominant view of profiles within the extant literature, which only become agentic when taken up by human users (Gudelunas 2012a; Lombardo 2009). The high betweenness centrality of profile websites was further suggestive of their importance as gateways to other media and sexuality assemblages, as I will now discuss.

Figure 7: Sub-graph for Profile websites and Mobile sex apps (circled) indicating the pattern of nodes connected up to a distance of 1.5
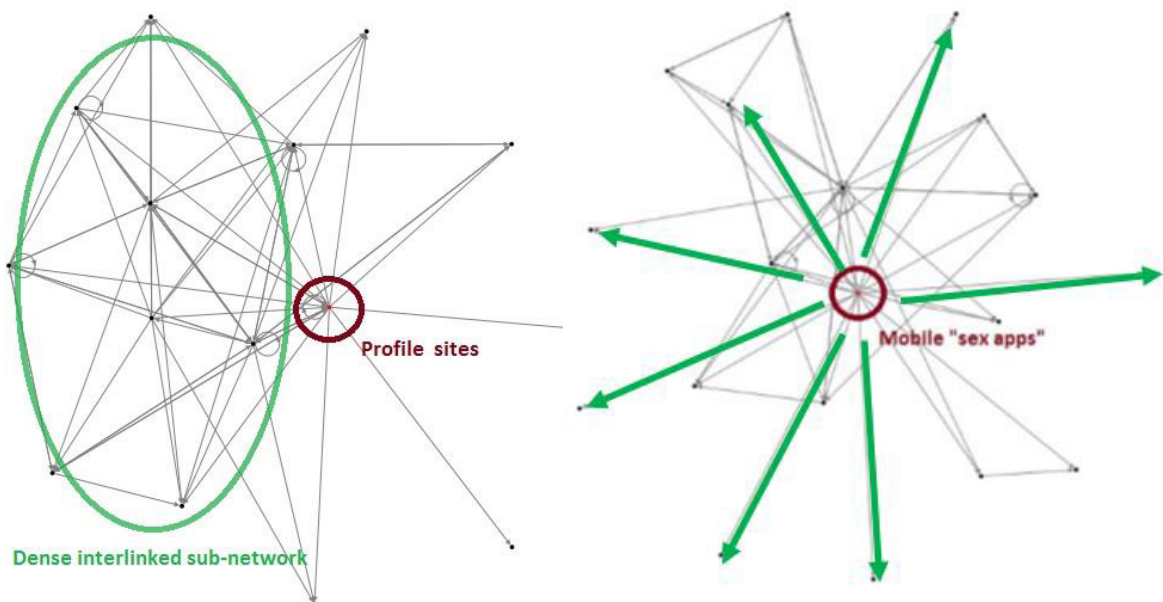
The greater out-degree from profile websites indicates that MSM were making more connections outwards from their profiles than into them. By linking outwards, sex-seeking profiles were found to form in the assemblage of other media in order to make them function differently, as the following example shows:

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> Check out anonymous_bj on xtube to see me in action on 2
> dicks (Profile site → XTube, biography section, 2013)

In this example a profile was linked to an XTube video. XTube is a website where user-generated content can be uploaded, including images and videos. Here the creator of the profile directed the viewer-user to an XTube video that showed him performing oral sex on several men simultaneously whilst wearing a mask, possibly as a way of evidencing his credentials at giving oral sex.

Previous studies of personal profiles have highlighted that interactivity and sociality are built into the architecture of some sites, for example the ability to friend one another or post to each other's profiles (Jones 2009b). In one of the venues that was observed during my study, the website allowed users to post verifications of encounters with profile creators (Fabguys.com), whilst another allowed the profile-creator to specify other partners that they would have group sex with (Squirt.org). The design of profile sites was therefore found to incorporate similar features found within social media that fosters sociality through connectivity (boyd 2011; van Dijck 2013). However rather than the 'platformed sociality' (van Dijck 2013) mediated by the design of the site, the interconnection linking together the profile and XTube account by the 'anonymous bj' man, may have been an attempt to assemble sexual sociality and affects that were greater than either media on their own. For example the XTube video might have generated sexual affect in viewers in a masturbation assemblage, and the profile may have led to no sexual affects as part of a sex-seeking assemblage – potentially being passed over in favour of other profiles where images of the profile creator's face were shown. However working in symbiosis, the linkage has the potential to generate sexual affects, in this case interest in the man behind the mask, by merging the intensities produced by the video with those of the profile.

In a similar scenario, another man on a profile site catering to casual sexual encounters in public, directed the viewer-user to his own XTube account. Though the web profile was located on a site intended to facilitate sexual encounters, the creator of the profile states that they were not interested in sex per se – 'I only want an audience'. The following extract was from the man's profile:

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XTUBE VIDEOS ONLINE: Videos of me wanking in public on xtube just search for public_jerk (Profile site → XTube, biography section, 2013)

As the profile creator indicates, the videos showed the man masturbating nude and semi-nude in various public spaces. The XTube videos in this example had several affective qualities. They may have been intended to provide visual evidence that the profiler enjoyed engaging in public exposure. In addition to supporting claims made on his profile, the initial act of exhibitionism was recorded in each video, and was recounted here as part of the profile, in an accepting space where public sex is the norm. In being linked to other media the sex-seeking profile therefore became part of an exhibitionist assemblage. Rather than being just a sex-seeking profile, it became a sexuality assemblage that extended virtually the potential for exhibitionism. I observed other examples that demonstrate the generation of different sexual assemblages through the linking of/with profile sites, as I will now discuss.

The following examples illustrate how linked media have the effect of opening up the profile and the sexuality assemblage, toward the formation of specific kinds of sexual and erotic affects. All three of the following examples were from a fetish website catering specifically to the bondage scene:

On Twitter @sublad85 (Profile site → Twitter, biography section, 2013)

I have more pics on my Tumblr gayboy85 (Profile site → Tumblr, biography section, 2013)

More fat than fit (but working on changing that) pierced top only into raw fucking http://hivsam.tumblr.com (Profile site → Tumblr, biography section, 2013)

In the first example, the link to Twitter allowed for a more personable interaction with the profile creator, given that the Twitter account included pictures depicting the profiler themselves. However as with the two links to Tumblr, there was an element of picture sharing within the Twitter feed, with the user re-tweeting images they presumably found sexy (see Slater 1998 on picture exchange). The links to Tumblr took the viewer-user to sites that were populated with explicit images that reflected their creator's sexual tastes. In the case of gayboy85, images graphically illustrated his love of niche sexual activities, through images depicting submission

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and domination. Similarly hivsam's Tumblr feed was filled with images of unprotected anal sex – 'raw fucks'. In the latter case, Tumblr expanded upon the user's explicitly stated preference for 'raw fucks', whilst in the former it carried on from the general intensive atmosphere of the bondage website from which the link originated. Unlike the other examples of linkages between profiles and media that had the effect of adding different laminations in authenticating the profile creator, Tumblr links could also elaborate upon and foster sexual and erotic affects. Following these links therefore had the potential to become a digital sexual practice itself, outside of the search for sexual partners. Both Robinson and Moskowitz (2013), and Tziallas (2015), have previously found that cruising online can be a sexual practice in itself. The examples above add to these findings, by illustrating the active ways in which media can be assembled by MSM, and that allow for this blurring between sex-seeking and pornography.

The examples drawn on so far have attempted to complexify the nature of web-based profile sites through a relational ontology of network-assemblages. To an extent, profile sites represent a legacy in sex-seeking as part of the shift from Web 1.0 to Web 2.0, with Web 2.0 being marked by an increasing emphasis on user-generation and participation (Beer 2009). In terms of MSM's sex-seeking and sexual communication, there have been moves from primarily textual chat, to websites that incorporate a greater number of modalities for content creation (e.g. profile websites). Changes in academic research on the topic reflect these technological shifts in MSM's sexual practices (Grov et al. 2014). However developments in mobile access to the Internet in the latest stages of Web 2.0 (Beer and Burrows 2007) may have again transformed sex-seeking profiles and the spaces of sexual sociality, as I now explore through the case study of Grindr.

5.4 Striations of connectivity: The case of Grindr

Grindr is a smartphone application, launched in 2009, that advertises itself as a venue for gay male social networking. However the app has gained reputation in public, academic, and media discourse, as a venue for MSM sex-seeking (e.g. Beymer et al. 2014; Rice et al. 2012; Vernon 2010). Grindr users create profiles that contain an

image along with basic demographic information (i.e. age, height, weight, body type), and can also write a short biography about themselves. Profiles are presented on the application as a series of small images arranged in a grid. The novelty of Grindr is that it is geo-location based, meaning that images are arranged within the grid based on the relative position of other users to a device – however other filters can be applied. The design of Grindr allows for synchronous communication, with private interactions with other Grindr users appearing as a series of continuous messages, much like a chat dialogue in Microsoft Messenger.

In February 2011, Grindr released an updated version of itself, Version 1.5, which included several new features. One of these features was the ability to add social links to Facebook, Twitter, and LinkedIn (Grindr 2011). As with demographic information, social links allowed the user to fill in pre-assigned fields when creating their profiles. The inclusion of LinkedIn, a website which advertises itself as a place to manage your professional identity, could be interpreted as an attempt to striate and "mainstream" the Grindr service around a less erotic identity. In a later redesign of the Grindr software, circa October 2013, the ability to add LinkedIn had been removed, being replaced with Instagram, a form of visual blogging. The types of social linkages available on the Grindr platform, as of 2015, are what Miller (2008) would designate as 'phatic', being intended for purely social communication. The importance of these media was not in the transmission of meaning, but instead 'it is the connection to the other that becomes significant' (Miller 2008:395).

Instagram is a photo and video sharing microblog that allows users to post media content taken with their mobile phones. Users can also add tags to content in order to classify it. As a digital venue, Instagram has no communicative function from the perspective of conversational exchange. However when incorporated into sexuality assemblages, Instagram and other SNS can function as passageways for flows of concepts, words, and things. As the marketing for Grindr suggests, 'Linking to Instagram from your profile is a great way to provide more pics to that hot guy you're chatting up' (Grindr 2013:no page number). Linkages to social media could therefore be smoothing devices that deploy the logic of connectivity to offer up alternative points of view into the Grindr user – as a dispersed assemblage. However it is when

the usage of these linkages becomes associated with information flows, as the link to Instagram has been, that they are striated.

Despite these striations, informational exchanges via SNS can be affective. Zappavigna (2011, 2012, 2014) has written extensively in terms of affect-emotion in relation to Twitter and microblogging, highlighting its capacity to generate solidarity networks via these sites. Similarly Sharma (2013), as indicated previously, has argued that race on Twitter is an assemblage, and that tweets can link up to other assemblages in the production of 'contagious' affects. However there were few examples of where linkages to SNS from Grindr had the potential for erotic affects. Though explicitly sexual Grindr profiles linked to sexual Twitter profiles, largely the assemblage of Grindr-SNS echoed the rhetoric of Grindr – to 'provide more pics to that hot guy' (Grindr 2013:no page number). Though these pictures may be the deciding factor in whether desiring bodies meet (i.e. as a way of assessing attractiveness), they were not intentionally sexually affective – for example being pictures of landscape, friends, and daily activities, they were not staged in order to 'capture' bodies (Coleman 2008a:171).

Changes in the location and placement of social links on Grindr is illustrative of the sedimentation of connectivity as part of MSM's sexuality assemblages. The changes were made as part of Grindr's redevelopment as 'an app made with the Grindr guy in mind' (Grindr 2013:no page number). In early 2013, social links on Grindr took the form of hyperlink addresses, written out in full. In Figure 8, the profile on the left represents this early version of social linkages, located in the biography section of the profile (bottom left) – the user has been anonymised here to *XXXXX*. The profile on the right was captured in December 2013, after the instigation of the "new look" Grindr. The redesign was based around several changes to the functionality of the app, with each section of the profile having its own sub-heading, including: headline, about, looking for, and social networks. In addition to sedimenting particular pathways away from Grindr (i.e. to Twitter, Instagram, Facebook), the re-design formalised these linkages as part of the Grindr experience.

In the updated version of Grindr, at right in Figure 8, each link had its own demarcated space, sitting within oblongs that on Grindr are coloured in different

shades of blue. Each link bore a marked similarity to the brand colours for the different social networks. Facebook, Twitter, and Instagram, all adopt different hues of blue as their primary colours. Furthermore, in the example in Figure 8, the logos that represent the different social links, the bird and camera, are both the official branding for Twitter and Instagram respectively. This increased branding presence on Grindr is suggestive of an official association between Grindr and these other SNS in order to use this branding.

Figure 8: Example of changes in the design of Grindr and the display of social media links (Circled in blue); Profile at left captured in July 2013 and on right December 2013
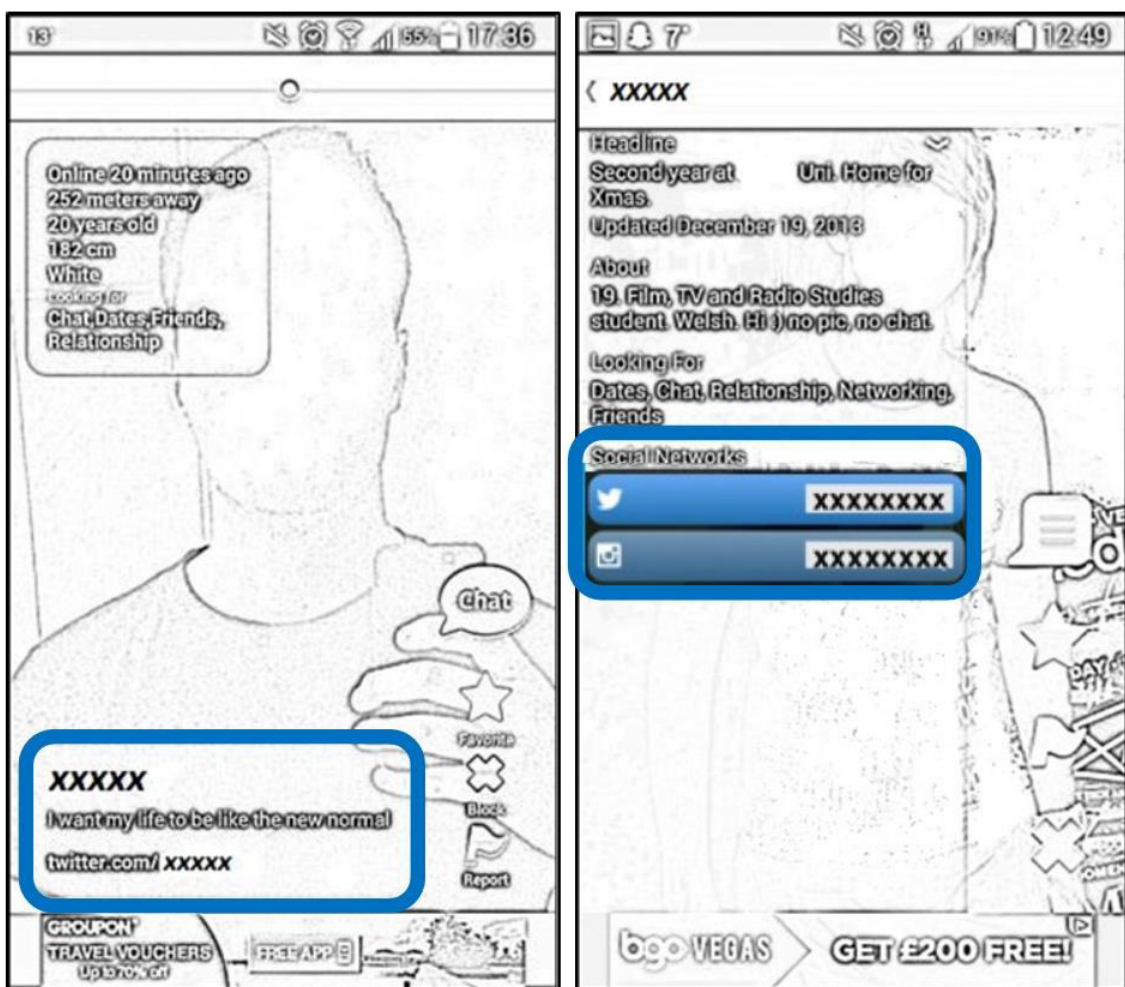
Over various iterations, the logics of a culture of connectivity (van Dijck 2011, 2013) have seemingly become fully integrated into the design of Grindr. As van Dijck (2011:402) indicates, a culture of connectivity is one where perspectives and experiences are increasingly being mediated by social media through the active creation of connections. In Figure 7, Grindr and other mobile applications explored in this study sat at the centre of a hub of media linkages, sharing a similarly high

number of linkages as web-based profiles. However unlike web-based profiles, there were no in linkages to mobile "sex apps", with all linkages being away from mobile "sex apps" (out-Degree, n=18) (Appendix D, Section D.1). This placement of mobile apps as the binding force for "hollow networks" of media may have implications for the potential affects being sought through media usage, when combined with the idiosyncrasies of mobile "sex apps" such as Grindr.

Grindr and other geo-location based applications tend not to have web-based counterparts, and are therefore a purely mobile phenomenon. Mobile sex-seeking profiles on Grindr at least, are not stable identities in the sense that there is no constant digital presence. On Grindr, after an hour of inactive use, unless the user has been "favourited", then their profile will no longer appear in the grid of men. Furthermore, when in use, mobile sex-seeking profiles are highly dependent upon their emplacement within the real-virtual geographies of other users. Social media links may therefore help to mitigate this sense of displacement, enabling the user to deploy their (actor) network to give them a sense of presence (Latour et al. 2012:592). Moving through such a network provides more information, in a process that Latour et al. (2012:593) liken to a narrowing down 'to a more and more particular instance' – what could be interpreted as the individual. Equally however, users can embrace the ephemeral nature of the media by remaining unlinked, with profile image blanked, and detached from any other 'simulacrum' that may exist (Kreps 2010). This would thereby allow MSM to become with their Grindr profile and assemble sexuality "in-the-moment", free of prior digital traces.

Along with the drive to connectivity, Grindr has illustrated increasing striations as the potential to create content has gradually been subsumed into its architecture. On similar "sex apps", Tinder for example, the integration of social media into sexuality assemblages is almost complete. A Tinder profile cannot be created without an associated Facebook account. Tinder links directly to Facebook in order to sink together the profiles, draw into itself images, information on personal tastes and "likes", as well as location data (David and Cambre 2016). In comparison, the designers of web-based profile sites have been far more guarded about the inclusion or even permittance of social media links. Direct contact details or hyperlinks were

often removed by website moderators – as was observed on Squirt.org (2015), a web-based MSM sex-seeking site, where '*** Removed by moderator ***' replaced any edited materials. It is these striations, and the methods used by MSM to overcome them through implicit links that I explore in this final section.

5.5 Overcoming striation: Subverting the form through a third space

Within my discussion so far there have been glimpses of the ways in which digital spaces were smoothed by desiring bodies. For example to overcome striations that attempt to limit sexual affect to a single site, the creators of profiles on websites were found to use implicit links e.g. "Search for Hot_Ian on XTube". This section examines in greater detail some of the 'immanent becomings' (Ringrose and Coleman 2013:134) of media use, or the ways that the striated spaces of the network-assemblage were subverted in order to open up movements in different directions – lines of flight. This discussion therefore centres on the creation of holey spaces, being a third type of space that traverses between smooth and striated spaces, thereby evading the prying eyes of authority (Bonta and Protevi 2006:95). In the case of MSM's digital sexual practices, authorities acted through moderators who were agents of corporate values, as well as through the gaze of other men. The first example of subversive practices comes from linkages between Grindr and social media, continuing with the discussion in the previous section. As indicated previously, such links have been striated into particular uses as means of providing more pictures to 'that hot guy' (Grindr 2013:no page number). David and Cambre (2016:4) have found the same striation of linkages to Instagram, this time from Tinder, suggesting that the designers of Tinder integrated Instagram into the app after noticing users adopting manual links. In the following example I map linkages between Grindr and Instagram in order to question the logic behind this connectivity, given that the majority of social media have Terms and Conditions of use which prohibit sexually explicit images.

Previous studies have highlighted the proliferation of selfie images on Instagram (Frosh 2015; Hu et al. 2014), as well as the use of sexual displays on social networking

sites such as Facebook (Moreno et al. 2012). During observations of Instagram, it was not uncommon for men to show themselves topless or in their underwear. As an example, Figure 9 was taken from an Instagram profile that was linked to from Grindr, and shows a man lying naked with his bottom just visible in the background. The caption 'Cheeky <3' accompanied the image (Figure 9), alongside several tags which the user had generated to categorise the image. The content of this image is ambiguous and artistic enough not to face sanction, however the explicit expression helps to send the sexuality assemblage whirring into life, as the responses to this image suggests: 'Sexy', '#Slaaaag x', '☺'. This was the only explicit image within the Instagram profile, sat in between images of food, selfies, and humorous cartoons. The wider social media assemblage in which this image sat may have helped avoid the premature termination of any forming sexuality assemblage.

Figure 9: Example of explicit image on Instagram, with associated keywords (hashtags); Image has been adjusted
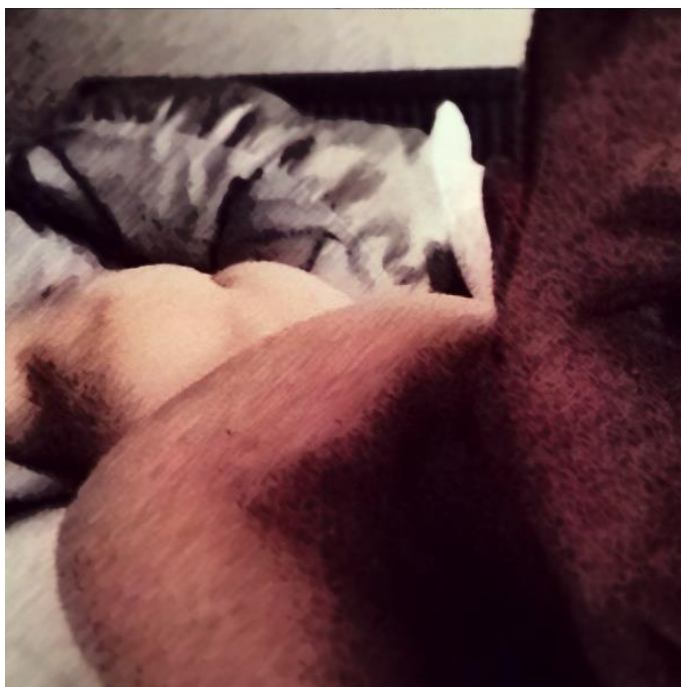
#gay
#instagay
#boy #selfie
#bum
#assout
#love
#blowme

The survival of this and other content prohibited under the Terms of Use of SNS may be attributable to the processes which maintain social order in these venues. In the case of Instagram, despite being searchable, entry to profiles is predominantly through self-referral i.e. by providing others with links to your profile. In the 'How do I find people to follow' section of the Instagram website, the process of connecting is either between known friends and pre-existing contacts, or suggested users by the

system (Instagram 2016). People entering profiles, whether from Grindr or through pre-existing friendships, are likely to be receptive to the forms of content and that which is expressed on Instagram. In this example, the user has overcome the striations of Grindr that prohibit profile images containing nudity, through linking to Instagram. Instagram itself prohibits the posting of 'nude, partially nude, discriminatory, unlawful, infringing, hateful, pornographic or sexually suggestive photos or other content via the Service' (Instagram 2015:no page number). However the striations of the synoptic gaze which operate within the Instagram space, whereby individuals monitor each other (Hier 2003), allows for breaches to occur if individuals collude to accept certain practices. This compares to the panoptic striations of Grindr in which the app owners monitor and enforce their own rules through intermediaries such as site moderators or algorithms (Roth 2015). I observed other examples in which the panoptic striation of venues necessitated the creation of holey spaces to evade authority.

Although Craigslist represents the least policed of the sexual venues under study, it still has several rules or community norms. Craigslist has produced a list of prohibited goods, services and content, which includes Emails that attempt to drive traffic to other websites (Craigslist 2016). The inclusion of telephone numbers within the main body of advertisements is similarly prohibited, as is the inclusion of http addresses. Signifiers for this content such as strings of 11 numbers (telephones), the @ symbol (Emails), and http:// (web addresses), are detectable by automated means, which can potentially lead to the advertisement being deleted before being posted on the site. Men advertising within the casual encounters section on Craigslist have therefore adopted novel methods in overcoming these striations, within what is otherwise a smooth space for desire-intensity flows.

In terms of telephone numbers, users were found to spell out certain parts of the telephone number, whilst retaining other numbers as integers, as the following examples illustrate:

> ***phone wank*** - Caught a guy pissing in street and he had a huge cock now want one in my mouth. Tell me how to worship your cock call oh12threefour56seven89oh (Craigslist M4M → Telephone, advertisement, 2013)

> ***Massage Appointments at City Gay Massage*** - Gay massage
> appointments with a guaranteed happy ending. Give me a call
> oh12threefour56seven89oh (Craigslist M4M → Telephone,
> advertisement, 2013)

Similarly in avoiding the detection of the @ symbol within Email addresses, advertisers spell out Email addresses, as in the following example:

> ***Looking For Young Lads Who Spit To Spit On Me And Use Me***
> ***To Drive Them*** - Get back on here or add me to your
> messenger an_email-at-email-dot-com if interested. If you
> got a pic that would be cool (Craigslist M4M → MSN, Craigslist
> M4M → Email, advertisement, 2013)

In addition to adapting the textual aspects of advertisements, Craigslist permits several images to be included along with the advertisement, which are not vetted before being made publicly available. Advertisers were found to alter images in order to create smooth spaces that allowed for desire-intensities to flow uninterrupted. Those engaged in commercial sex used this method in order to engage in a prohibited activity (i.e. sex work), using a prohibited method (i.e. giving personal/contact details). Methods used included images overlain with web addresses ('*Mass_eur*')[19] or simply blank boxes with web addresses inside ('*firm hands*'). Similarly those engaged in sex-seeking used the visual to link up with other desiring bodies.

Figure 10 is an example of an image from an advertisement on Craigslist entitled '*WHIPPING BOYS*', where the advertiser was seeking sexual partners for BDSM. In this example, an image was overlain with the Email address of the individual – changed to maintain anonymity. The central image shows a whip, with text inside indicating that it was 'hand crafted'. The image thereby references and reflects the expressed within the advertisement (i.e. bondage and sadomasochism), whilst the Email reaches out to the viewer-user.

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[19] Italicised text are the headlines of advertisements.

Figure 10: Image taken from Craigslist advert illustrating the use of images to avoid detection of email address
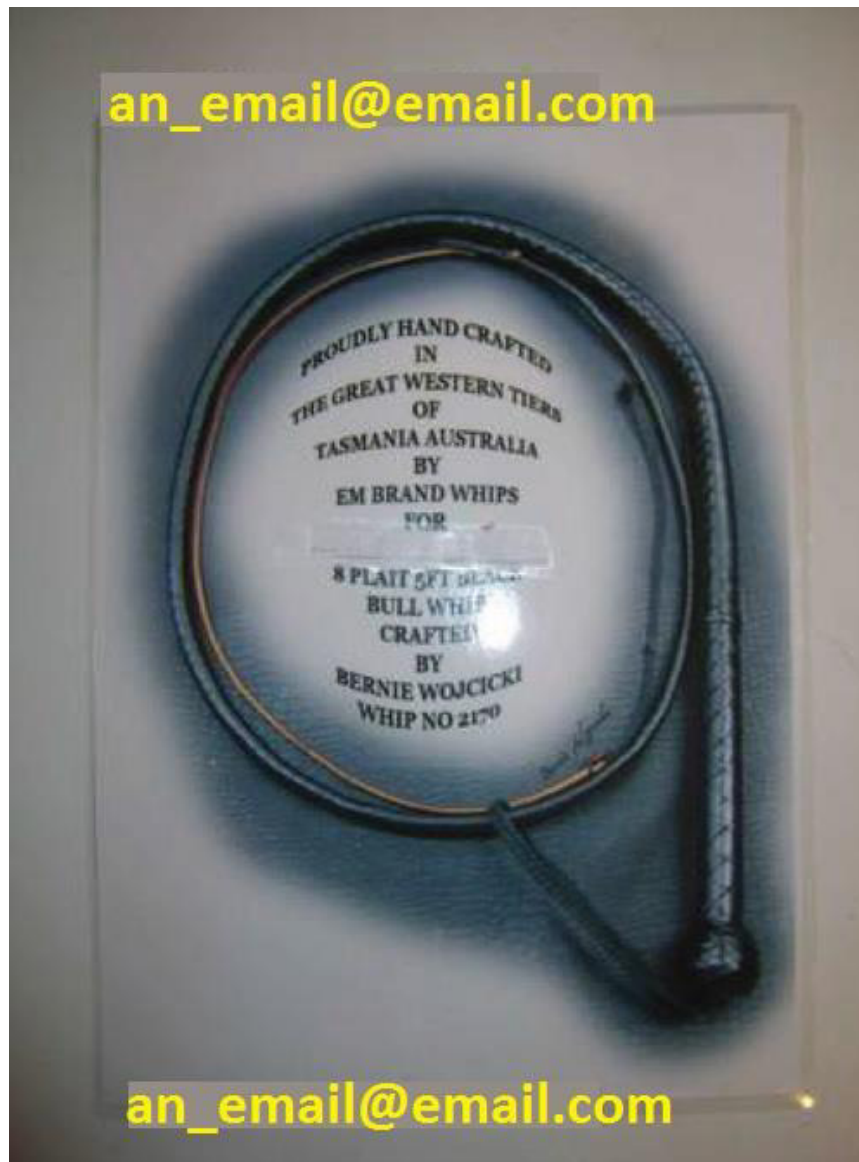
Common amongst these various strategies for opening up itinerant spaces within the network-assemblage was the manipulation of the visual field. Even in the case of turning telephone numbers into text, this interrupts the visual and the process of reading, thereby generating intensities with the reader (Coleman 2013a). The affects from these intensities renders the phenomenon as salient, and not simply an error. Craigslist is the least policed of the venues under study. Therefore it would have been expected that the men using the website would have had greater freedom in terms of the ability to make linkages and to personalise their digital sexual assemblages.

Though the act of subversion indicates that there are norms that striate the space, the design of Craigslist allows for this subversion to occur. In spaces that were heavily policed, and therefore highly striated, the sexuality assemblages and linkages that could be made were constrained. Here the visual field was entirely under purview of authority figures. For example on Grindr and the other mobile "sex apps", user photographs and biographies are vetted by both human and non-human others prior to being visible to the public (Roth 2015). Through this moderation, there is far less scope for subversive acts to create smoothing and third spaces, and reconnect with desire.

5.6 Conclusion: The rising culture of platformed sexuality

In this chapter I have addressed one way in which digital sexual practices can be apprehended through a post human framework. As noted by van Dijck (2011, 2013), social media generate a culture of connectivity. A network sensibility, with its attention to connectivity, therefore enacted this culture in methods (Law 2004; Law and Urry 2004). This resulted in a map of MSM's digital sexual practices, not as unitary events, but as dispersed material-semiotic phenomenon occurring over a range of digital media.

In his work on hypertextuality and critical theory, Landow (1992) states that within print media, the field of relations within which a text sits are held spatially distant from that which references them. As the discussion of Grindr has illustrated, digital practices such as partner seeking have slowly developed into forms of hyperlinked texts. Therefore, as Landow (1992) notes of hyperlinked media, the networked nature of these media mean that it 'makes individual references [or bodies] easy to follow and the entire field of interconnections obvious and easy to navigate' (Landow 1992:5). This ability to orient oneself within media, it was suggested, 'changes both the experience of reading and ultimately the nature of that which is read' (Landow 1992:5). Similarly, in terms of the network-assemblage I have mapped out in this chapter, the hyperlinked nature of digital sexual practices changes the ways that they are read by researchers, and experienced by MSM.

Digital sexual practices exist as a much larger fluctuating system of media that draws on text, images, videos, and sounds. Viewed in this way these practices are no longer a reflection of some sexual essence, but emerge from the overlapping of various monads or points of view (Latour et al. 2012; Markham and Lindgren 2014). Furthermore, as I have suggested at various points throughout this chapter, and consolidated in my discussion of the evolution of network socio-sexuality on Grindr, sexuality assemblages merge and become other assemblages. These mergers could be productive, for example linkages to Snapchat as a means of generating and distributing user generated pornography. At other times sexuality assemblages may be pulled in strange directions. The presence of a community of social media that appeared to be associated with commercial interests, along with those associated with paid cybersex (Figure 6), illustrate potential pathways through which intensities may be channelled into capitalist assemblages, either by corporate entities or by MSM's own commercial sex work (see Chapter seven for an extended discussion). This chapter therefore adds further complexity to understandings of MSM's digital sexuality, as continually being deformed and always in process, and never just so.

Developments in the Internet toward greater user-generated content, mobile computing, and connectivity (van Dijck 2013), have embedded what could be termed a "platformed sexuality" within the architecture of digital sexual venues and MSM's sexual practices. However legacies from older versions of the Internet, such as profile websites and Craigslist, illustrate the use of linkages outside of a forced move toward networked culture. MSM were found to strategically expand their networks and their sexuality assemblages through such linkages, thereby writing their own hypertexts (Landow 1992). Though this networking has been rationalised by website designers as providing information 'to that hot guy you're chatting up' (Grindr 2013:no page number), it none-the-less offers different points of view as the viewer-user navigates through links and profiles (Latour et al. 2012). As these perspectives intersect, this produces the effect of authenticating the user, and as previous research has shown, authenticity has a high currency in the digital sexual practices of MSM (Mowlabocus 2010b). However research has found that many MSM desire anonymity and control over digital spaces (Ross et al. 2007), and in the following chapter discretion is shown

to be important in the production of sex-seeking on Craigslist. If MSM are expected to cede details of their social media accounts and wider social networks in order to enter into certain digital sexual venues, as is currently the case on Tinder, then the maintenance of anonymity may become increasingly difficult.

The spaces of platformed sexuality that MSM's digital sexual practices are moving toward consists in the play between smoothing and striation. Social media were found to act as passwords to entry and authentication in certain spaces, which were therefore striated, whilst at the same time the connectivity they enacted smoothed the space into a set of distributed relations (Nunes 1999). As the vignettes of media use illustrated, networks could be deployed in creative ways by MSM in the production of different affects. Furthermore, as indicated in the discussion of subversive practices, the formation of platformed sexuality is not yet a given, but is in some instances still a "political" (small p) act out of a desire to create sexual 'networked publics' (boyd 2011). MSM have found innovative ways of rupturing these striations through the creation of underground holey spaces, in order to connect up assemblages and generate sexual affects in theirs and others' bodies.

This chapter has addressed the main research aim set out in Chapter two, to explore the materiality of MSM's digital sexual practices through a different, minor mode. In the following chapter I continue this minor analysis of MSM's digital sexual practices. However instead of mapping the connectivity between media, the focus of Chapter six falls on a single digital sexual practice (MSM's sex-seeking advertisements on Craigslist), as arising from the interaction between concepts, words, and things. In focusing on a single venue within the network-assemblage as a network in-itself, the following chapter therefore elaborates upon a baroque "reading" of MSM's digital sexual practices.

Chapter 6 – 'Gardens within gardens': The semantic network-assemblage of Craigslist sex-seeking posts

> Every bit of matter can be conceived as a garden full of plants
> or a pond full of fish. But each branch of a plant, each member
> of the animal, each drop of its bodily fluids, is also such a
> garden or such a pond (Rescher 1991:26)

In this passage, translated by Rescher, Leibniz proposes that every bit of matter is composed of a complex multitude, which is itself a multitude. Complexity within complexity is the motto of a baroque view, where the researcher looks down at phenomena to explore their singularity (Kwa 2002). The following chapter builds upon this premise in order to explore a node within the network-assemblage mapped out in Chapter five, as a network-assemblage in-itself. By exploring complexity within complexity, my analysis therefore takes to heart Lather's (2013:638) comment that working with post humanism is to 'redefine objects as more in networks than in single sites'. This chapter contributes to an alternative reading of MSM's digital sexual practices – the main research objective of this study – and makes an original contribution to social research by applying post human ontologies to analysis. This approach does not take the subject as its primary point of departure, instead focusing on practices, whilst giving due credence to non-human elements, including affect (Thrift 2008; Vannini 2015a). To that end, my discussion stages a Deleuzian reading of digital sexual practices using the techniques of Network Text Analysis (NTA). The method of NTA, outlined in Section 4.4.2, is used in order to explore the materiality of MSM's digital sexual practices as being composed of flows of concepts, words, and images (Drieger 2013) – hereafter referred to as concept-word-things.

The *Day in the Life* Craigslist sex-seeking corpus forms the focal point for this chapter. The textuality of Craigslist made it a good candidate for a minor Deleuzian reading of text and language (Lecercle 2002). Rather than applying post human ontologies to particularly "futuristic" forms of GPS enabled sexual practices, a low modality venue allowed for the examination of what a minor mode could add to the study of digital sexual practices. Together with personal profiles, advertisements placed on Craigslist form technologically mediated means of web-based sex-seeking (Bottom left in

Figure 6). Gudelunas (2005) suggests that these digital mediations provide a wealth of information on MSM sexual tastes and preferences. As a result, the advertisements placed by MSM on Craigslist have been extensively used in order to understand their sexual practices – see Appendix F for an overview of the literature. I therefore begin my discussion by exploring this body of research, allowing for the juxtaposition of a Royal and minor approach to reading the same digital practices.

Following the schizoanalytic edict to produce maps (Gerlack and Jellis 2015), the main discussion within this chapter flows around a series of visualisations that map the relationality between concept-word-things that composed the Day in the Life corpus. The question answered through my discussion is central to a Deleuzian approach to the study of utterances, namely what composes Craigslist sex-seeking advertisements, and how do they function (Buchanan 2013)? I conclude this chapter by comparing the different knowledge gained from a minor approach to that in the extant literature. In doing so I build upon and consolidate the methodological contribution of the previous chapter. Having outlined the structure for my discussion, the following section briefly reintroduces Deleuze and Guattari's (2005) theoretical perspective on the Royal and minor modes of science. These modes of researching events are linked to ways of "reading" sexual practices, which forms the refrain for this chapter.

6.1 Theoretical refrain on the Royal and minor

Though the distinction between the Royal and minor forms a repeated refrain throughout this thesis, in the following discussion these differences come to the fore as a way of highlighting a more-than-representational reading of digital sexual practices. As discussed in the theory chapter (Chapter three), Deleuze and Guattari (2005:361-362) highlight numerous points of departure between the Royal and minor modes of science. The main distinction between the two is that the Royal reproduces whilst the minor follows (Deleuze and Guattari 2005:372). Reproduction refers to the process by which the (social) world is aggregated into distinctive elements that then form the basis for a linear science (Bonta and Protevi 2006:138). The Royal also implies a fixed point of observation external to that which is

reproduced, or as Deleuze and Guattari (2005:372) state, 'watching the flow from the bank'. In comparison following takes as its starting point phenomena as continually in a state of formation. With no fixed form to define, the researcher is obliged to follow the assemblage of elements, and in doing so maintain some degree of complexity (Deleuze and Guattari 2005:372).

Building upon the distinction between the Royal and minor I operationalise the process of following in this chapter as analytical practice. In doing so, the ensuing discussion will 'describe and present rather than diagnose and represent' (Cadman 2009:6), in line with a post human/more-than-representational approach to research (Vannini 2015b). Texts are read in the Royal mode as a series of aggregates that (re)present themselves to the reader in words and images (Bonta and Protevi 2006:135). As an example from the literature on digital sexuality, profile pictures are interpreted in terms of 'meanings inscribed *in* such images' (Mowlabocus 2010b:201, emphasis added). In comparison, reading linked to a minor mode follows the connections and lines that operate through and between phenomenon and things. As an example of this type of reading, Honan and Sellers (2008) deploy the concept of assemblages through their rhizomatic discourse analysis. By analysing texts as rhizomes of discourses, Honan and Sellers (2008) explore the relations between discursive elements, or how they function, rather than simply attempting to trace the absence and presence of certain discourses.

Reading digital materials through the ontology of network-assemblages involved moving away from asking what these materials meant, asking instead what composed them and what affects they transmitted (Deleuze and Guattari 2005:4). Within a more-than-representational mode of reading then, language is not limited to the domain of the signifier. Being at the border of words and things, texts have what Cole (2011) calls affective resonances – these being (im)material affects that move through and from texts. Following Coleman's (2013a, 2013b) reading of the visual, this therefore draws attention to the possible futures that assemblages open on to and envelope. It is this attention to affectivity through a focus on relations and change in things that is at the heart of more-than-representational research (Vannini 2015b:7-9).

The analysis presented in this chapter used NTA in order to atomise Craigslist advertisements into their composite concept-word-things and explore the relations between them. How these relations function as a genre was then interpreted through the affective potential of these expressions to cause changes, or in a Deleuzian linguistics approach their ability to generate incorporeal transformations (Grisham 1991). Having outlined the general theoretical refrain for this chapter – the Royal and minor – the following section works with and through existing empirical studies in order to illustrate recurrent (Royal) trends in how Craigslist sex-seeking has been read.

6.2 The Royal approach to researching MSM's sex-seeking on Craigslist

In Appendix F I provide an overview of the literature exploring MSM's use of Craigslist as they engage in the practice of sex-seeking[20]. For reasons of comparison with the analysis of Craigslist in this chapter, the review in Appendix F was been limited to the literature that drew on Craigslist as digital materiality. Excluded were studies that used Craigslist as a method of recruiting participants, or those that explored MSM's use of Craigslist using elicitation methods such as surveys and interviews (e.g. Grov 2010; Grov et al. 2013; Moskowitz and Seal 2010; Robinson and Moskowitz 2013). Also omitted from this review were studies that utilised counts of Craigslist advertisements without reference to the content or expression of the advertisements themselves. For example Chan and Ghose (2014), and Fries et al. (2014), both used the frequency of Craigslist advertisements within particular geographic regions as indicators of its popularity, with these counts forming variables in further analysis to predict sexual health outcomes for HIV and syphilis infection respectively.

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[20] This review excluded a study of Trans individuals' personal advertisements on Craigslist (Farr 2010), many of whom articulated binarised genders (i.e. being Male). However the Royal focus on identity as a quality of bodies, and the representation of this in digital materiality, was found in Farr's (2010) study as with the other Royal studies reviewed in Appendix F.

The literature that drew on the digital materiality of Craigslist was found to have two main methodological strands. The first and by far the largest strand utilised content analysis, in combination with statistical/descriptive analysis, in order to examine patterns of content and/or compare patterns between two or more groups (e.g. Clements-Nolle et al. 2014; Downing 2011; Downing and Schrimshaw 2014; Frederick and Perrone 2014; Goodlin-Fahncke and Dial 2012; Grov 2010; Haimson et al. 2014; Robinson and Vidal-Ortiz 2013; Rosenbaum et al. 2013). The second strand within the literature had a more qualitative inclination. Here research tended to draw on variants of thematic analysis in the identification of themes or recurrent narratives within Craigslist sex-seeking advertisements (e.g. Lee 2007; Ward 2008; Reynolds 2015). Though these strands of research approach Craigslist differently, roughly equating to quantitative and qualitative analyses, they both work through the Royal mode to varying degrees. The remainder of this section maps out this Royal tendency through the reviewed literature.

Quantitative analysis proceeds by aggregating words and things through numbers, and in doing so could therefore be assessed as following a Royal mode. However most research proceeds through some form of aggregation or territorialisation during analysis, even qualitative research (Fox and Alldred 2015a; MacLure 2013b). For example, qualitative thematic content analysis of sex-seeking on Craigslist reduces complexity through aggregation via coding. If the Royal mode is not related solely to the method of counting then, I suggest that this particular mode of science emerges in similarities in how the digital materiality of Craigslist is read.

As with the study of MSM's profiles highlighted in the previous chapter, Craigslist advertisements have been viewed as static aggregations of linguistic meaning i.e. bits of information. For example Rosenbaum et al. (2013) use the framework of people as products in order to deconstruct sex-seeking advertisements placed on Craigslist. Their study therefore reflects the Royal tendency toward reproduction in that it used the theoretical abstraction of market exchange, as a lens through which to deconstruct personal posts. The people-as-products framework directly informed the content analysis method adopted by Rosenbaum et al. (2013), through the identification and aggregation of resources that were advertised for exchange. These

resources included: love, educational status, intellectual status, occupational status, and physical attributes (Rosenbaum et al. 2013:513). However in recognition of what they call the 'The Craigslist marketplace reality', being the highly sexual atmosphere of Craigslist, Rosenbaum et al. (2013:512) added sexual information and sexual services to their resource list. There is therefore some minoring of their research, in being affected by their engagements with the field.

Along similar lines of reproduction, this time from a more qualitatively inclined study, Ward (2008, 2015) used the abstractions of race and heterosexuality in order to explore the sex-seeking advertisements of "Str8" (Straight) identified men. Advertisements were "read" as being representations of men online, though without making any truth claims of their behaviours In-Real-Life (Ward 2008:418). It is this reading based on representations that places Ward's study within the Royal mode. Furthermore, Ward's (2008, 2015) analysis of Craigslist attempted to understand how heterosexuality came to be constructed through advertisements. However by drawing on race as a way of accomplishing this, Ward (2008) used aggregations of meaning in order to generate further aggregations. In this case "white culture" was used in order to understand the representation of "heterosexual cultures" within Craigslist posts.

The work of Lee (2007) came closest to disrupting a representational reading of Craigslist. In his close textual analysis of Craigslist advertisements placed by Gay Asian Males (GAM), Lee explored the relationship between racial identities and desire. Rather than starting from the premise that GAM identities were a given, Lee's (2007:3, original emphasis) analysis demonstrated that identities were not a state of being, 'but states of *becoming*'. Though the author did not draw directly on the Deleuzian use of becoming as a state of always in process, he did place a similar emphasis on identity through interaction (Lee 2007:3). However what shifted Lee's (2007) study out of the domain of social construction of sexual subjectivity, following Butler (1990) for example, was the focus on desire. In focusing on the role of advertisements in fantasy and eroticism, it was suggested that this:

> [D]isrupts the notion that culture and its meanings can be
> predictable in any manner. Instead, we see the role of

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> identity categories that interact with one another *along with*
> the individuals who use them to navigate through the world
> (Lee 2007:44, original emphasis)

As illustrated in this quote, Lee's analysis moved out of the realm of meaning, instead exploring GAM sexual identities in terms of their relationality. It is this relational approach that the remainder of this chapter takes up. However Lee analysed a sub-sample of MSM in terms of one aspect of their posts, GAM identity. This narrow focus effectively limited the framework for his analysis, making it a manageable task through the method of close textual reading. In the current chapter, the corpus to be analysed was 1,006 posts. Applying close textual reading to such a large corpus would have necessitated simplifying it into segments of meaning. The method of NTA was therefore instrumental in order to analyse the entire corpus, whilst operationalising the principles of relationality within a network-assemblage framework.

In the following section I introduce the findings from applying NTA to analyse the *Day in the Life* corpus of MSM casual encounter advertisements. I explore the content of advertisements, the concept-word-things that compose them, but also that which is expressed in and through these advertisements as a genre of sex-seeking. Before mapping out the enunciative space of Craigslist, I firstly explore the corpus in terms of the frequency of word occurrences and co-occurrences. Such a frequentist analysis provides a romantic overview of MSM's enunciations on Craigslist, in order to introduce their most salient aspects.

6.3 Frequentist overview of Craigslist corpus

Table 6 ranks the first 20 concept-word-things in the Craigslist corpus, in terms of the frequency of mentions (Left) and number of texts in which they appeared (Right). In addition to these raw frequency counts, Table 7 gives a combined measure that accounts for both of these factors, known as the term frequency inverse document frequency (tf*idf). The relative importance of concept-word-things within the *Day in the Life* corpus is highlighted by the value of tf*idf – the greater the value of tf*idf the greater its importance. Though there was some movement of concept-word-things in terms of their rankings for mentions and document occurrence (Table 6),

the general structure of the top 20 concept-word-things remained stable. Looking (Look) was the most frequent concept-word-thing used in the corpus, reflecting the élan vital of Craigslist sex-seeking advertisements – the watch and with highlighted by Jones (2009b). However the tf*idf rankings highlight a different structure to the corpus, being the low importance of 'looking' or 'look' in terms of the uniqueness of advertisements, due to its high occurrence across the corpus.

Table 6: 20 highest ranked concepts-words-things based on total mentions (frequency) and number of texts

Rank	Concept-word-thing	Freq.	Rank	Concept-word-thing	No. of texts	Per cent of corpus
1	look	1112	1	look	681	68
2	guy	964	2	guy	540	54
3	time_period	922	3	time_period	503	50
4	blow_job	894	4	blow_job	474	47
5	general_location	708	5	picture	427	42
6	cock	664	6	cock	424	42
7	geographic_location	543	7	general_location	411	41
8	image_included	527	8	accommodate	392	39
9	picture	525	9	image_included	324	32
10	accommodate	422	10	discreet	306	30
11	discreet	395	11	geographic_location	299	30
12	fun	371	12	fun	265	26
13	straight	352	13	straight	231	23
14	fuck	333	14	fuck	226	22
15	bisexual	294	15	bisexual	216	21
16	lad	282	16	clean	210	21
17	young	259	17	young	188	19
18	clean	259	18	good	185	18
19	penis_type	258	19	reply	184	18
20	cum	246	20	lad	179	18

An approach based on frequency counts is revealing of patterns within the composition of Craigslist posts, following a majoritarian (or Royal) logic that views importance as being tied to their frequency of appearance (Marres 2012:158). Marres (2012) suggests that co-word analysis, synonymous with the relational approach of NTA, provides an alternative to these rankings and reputation (frequency) as measures of the importance of things. It is this relationality of concepts-words-things within Craigslist sex-seeking that is explored in the next section. However frequentist approaches are one way into the data, and are not necessarily limiting of knowledge production. In addition to highlighting clumpiness,

where concept-word-things stick together within the material-semiotic landscape of Craigslist posts, in this case around 'looking', analysis of word frequencies assisted in the NTA analysis through the creation of stop words.

Table 7: 20 highest ranked concepts-words-things based on term frequency, inverse document frequency measure of importance (tf*idf)

Rank	Concept-word-thing	tf*idf
1	blow_job	0.0231
2	geographic_location	0.0226
3	time_period	0.0219
4	general_location	0.0218
5	guy	0.0206
6	image_included	0.0205
7	cock	0.0197
8	straight	0.0178
9	fuck	0.0171
10	fun	0.0170
11	lad	0.0167
12	discreet	0.0161
13	bisexual	0.0155
14	picture	0.0154
15	penis_type	0.0153
16	cum	0.0149
17	young	0.0149
18	look	0.0149
19	wank	0.0143
20	meet	0.0141

Stop words are words that are frequent within a body of text, however they do not contribute to its uniqueness or singularity. As Marres (2012:158) notes of co-word analysis, the method tries to purge itself of terms that are merely popular. I applied a cut-off point to exclude concept-word-things that occurred in over 50 per cent of advertisements within the corpus. This decision was based on methods used in natural language processing (Watson 2009). As a result of this cut-off, 'look' and 'guy' were removed from the bulk of the relational analysis, being mentioned in 68 and 54 per cent of advertisements in the corpus (Table 6). Time period was mentioned in roughly 50 per cent of advertisements and had a high tf*idf rank suggesting its importance in the corpus, and was therefore retained. Having introduced the corpus, the following section gives a more detailed account of the relational structure of MSM's enunciations on Craigslist.

6.4 A relational approach to the study of Craigslist MSM's sex-seeking posts

6.4.1 An overview of the network-assemblage – community structure

The network-assemblage diagram in Figure 11 was constructed from the relationships between concept-word-things[21]. The graph is undirected so that words could interconnect with one another in different directions as they are experienced by the "reading-body". However as indicated in the methods chapter, NTA looked for near associations, in order to explore the structuring of advertisements. As part of an exploratory analysis, I constructed the network using directional linkages between concept-word-things. Measures of centrality remained largely unchanged, as did the modularity of concept-words-things within the network. The main difference was found in the metrics that assessed the quality of this modularity, and which tended to perform worse for the undirected than the directed graph. This was most likely because directional networks limit the possible number of pathways that can be taken through a network-assemblage, which would therefore inflate the community structure metric.

As with the analysis of media linkages in Chapter five, community detection in Gephi was used to identify any emergent conceptual communities within the network-assemblage – see Appendix C for a discussion of the creation of the NTA visualisation used throughout this chapter. Communities have been highlighted using different colours in Figure 11 and Figure 12. A 10-community split was used in the final analysis, with communities ranging in size from roughly 170 concept-word-things, to under 10 (see Appendix G, Section G.2 for a breakdown). When describing communities, concept-word-things with the highest betweenness centrality in that community were used to define them, with these being the most important concept-word-things in terms of passageways into these communities.

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[21] Section 6.4.2 uses a series of visualisations to individually explore each of the communities within the network-assemblage, therefore a larger version of the map has not been provided.

Figure 11: Craigslist sex-seeking network-assemblage showing the central mass of concept-word-things dominated by 6 communities (shaded); Larger labels indicate concept-word-things with higher betweenness centrality; Line thickness is indicative of frequency of co-occurrence

As shown in Figure 12, six main communities dominated the central mass of the network-assemblage, and it is these which form the focal point for my discussion. Two communities covered roughly half of the concept-word-things in the NTA network-assemblage as a whole. The largest of these communities in terms of number of concept-word-things was dominated by the concept-word-thing dyad of blow job – cock. This community accounted for roughly 23 per cent of nodes. The second largest group accounted for roughly 21 per cent of nodes, and was composed of the major linkage of time – location – geography (Figure 12). This latter community of concept-word-things reflected flows of information in staging emplaced sexual encounters. Craigslist advertisements could therefore be interpreted as functioning

to bring together male bodies in particular time-location-geographies. Alternatively, profiles on websites are desiring-machines that act independently of time to attract men and prompt further interactions in some virtual future. Different machinic assemblages of advertisements and profiles therefore potentially generate these different enunciations.

Figure 12: False colour image of Figure 11 with main communities circled; Labels relate to important features in terms of concept-word-things
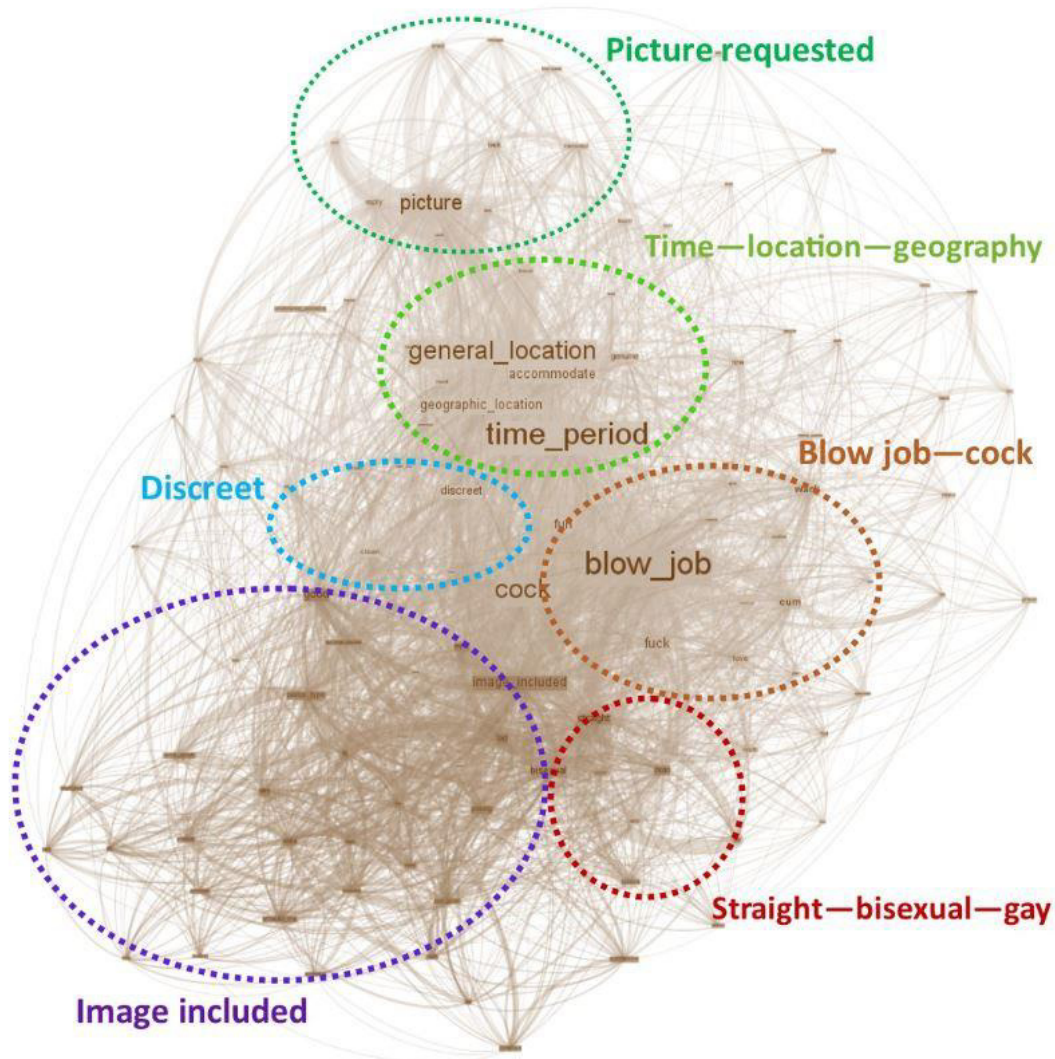
The size of the concept-word-things in Figure 11 reflects their betweenness centrality. Data relating to the top 10 nodes based on ranked betweenness centrality can be found in Table 8. Paranyushkin (2011:13) indicates that when conducting NTA, words with higher betweenness centrality are important in terms of the circulation of *meaning* within a word-network. However in a Deleuzian lexicon, this could be reinterpreted as importance in terms of both meaning *and* affects that overflows

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such meaning. The central concept-word-things that form the main points of affective flows in Craigslist sex-seeking were, in order of betweenness:

> Blow job – time period – cock – location – picture requested – geography

These concept-word-things form the basis of 'conceptual clusters', being the central nodes within their respective communities (Paranyushkin 2011:18). In order to give an indication of the concepts that each community encompasses, the first 10 nodes from each community, ranked by degree, are given in Appendix G (Section G.1). As the degree measures the connectedness of a concept-word-thing (Drieger 2013:10), providing these ranked concept-word-things illustrates the most connected words within each community, which I use in the description of the communities that follows.[22]

Table 8: Centrality and Degree measures for first 10 concept-word-things ranked by betweenness centrality

Concept-word-thing	Betweenness Centrality	Degree
blow_job	31599	249
time_period	28811	246
cock	24137	224
general_location	23944	217
picture	18812	161
geographic_location	11634	147
fuck	11268	160
accommodate	10922	163
fun	10235	153
image_included	9959	152

6.4.2 Functional elements within MSM's sex-seeking on Craigslist

Previous studies into MSM use of Craigslist have constructed thematic groupings in order to decode data. The final column in Appendix F gives an overview of the general themes identified in this literature. Common themes have been: physical appearance, sexual behaviours and acts, safe sex and drug use, and the space, place and time of sexual interactions. The communities identified in the network-

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[22] In the community maps in Section 6.4.2, different minimum degree measures were set in each visualisation in order to illustrate the central nodes within each community, and to allow for ease of interpretability when presented in this thesis.

assemblage broadly conform to and combine these general conceptual groupings, as the following discussion will show.

Time and place

As highlighted previously, the time – location – geography community (Figure 13) refers to the setting for the sexual encounter, or meeting arrangements as identified by Clements-Nolle et al. (2014). This community was strongly bounded by the associations between general locations (e.g. park, hotel, my house), specific geographic locations (e.g. Cardiff, Bristol), and temporal aspects of encounters (e.g. this afternoon, lunch, weekdays). The time – location – geography community highlights the singularity of Craigslist advertisements and the situatedness of the digital sexual assemblages they form. This place-space-time based nature may be true of other forms of digital sex-seeking, for example via Grindr (Blackwell et al. 2015; van de Wiele and Tong 2014). However unlike Grindr, the socio-technical limitations of the Craigslist website requires that men be explicit about their presence and the temporal and spatial boundaries of their encounters.

On Grindr the user's presence is made available to other men on the app as soon as the user logs in. Furthermore, the spatial nature of mobile "sex apps" drawing on geosynchronous positioning, obviates men from having to make any initial statements about their location (Blackwell et al. 2015). However despite Grindr being spatially embedded, my observations found that men using the app still accounted for their presence in a space-place. For example 'Top from London' and 'Vaker Amsterdam dan Utrecht [More often in Amsterdam than Utrecht]', were both taken from the biography sections of profiles on Grindr. In these examples, the men were accounting for their (out of) place-ness in a particular space – both being visitors to the area. The enduring presence of place and space in both Craigslist and Grindr is therefore suggestive of the importance of the time – location – geography conceptual community within the practice of sex-seeking. However how this importance is enunciated varies with the machinic assemblage of bodies and technologies, and the affordances of the media being drawn on.

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Figure 13: Close up of community associated with settings for sexual acts; Self-loops removed; Line thickness is indicative of frequency of co-occurrence
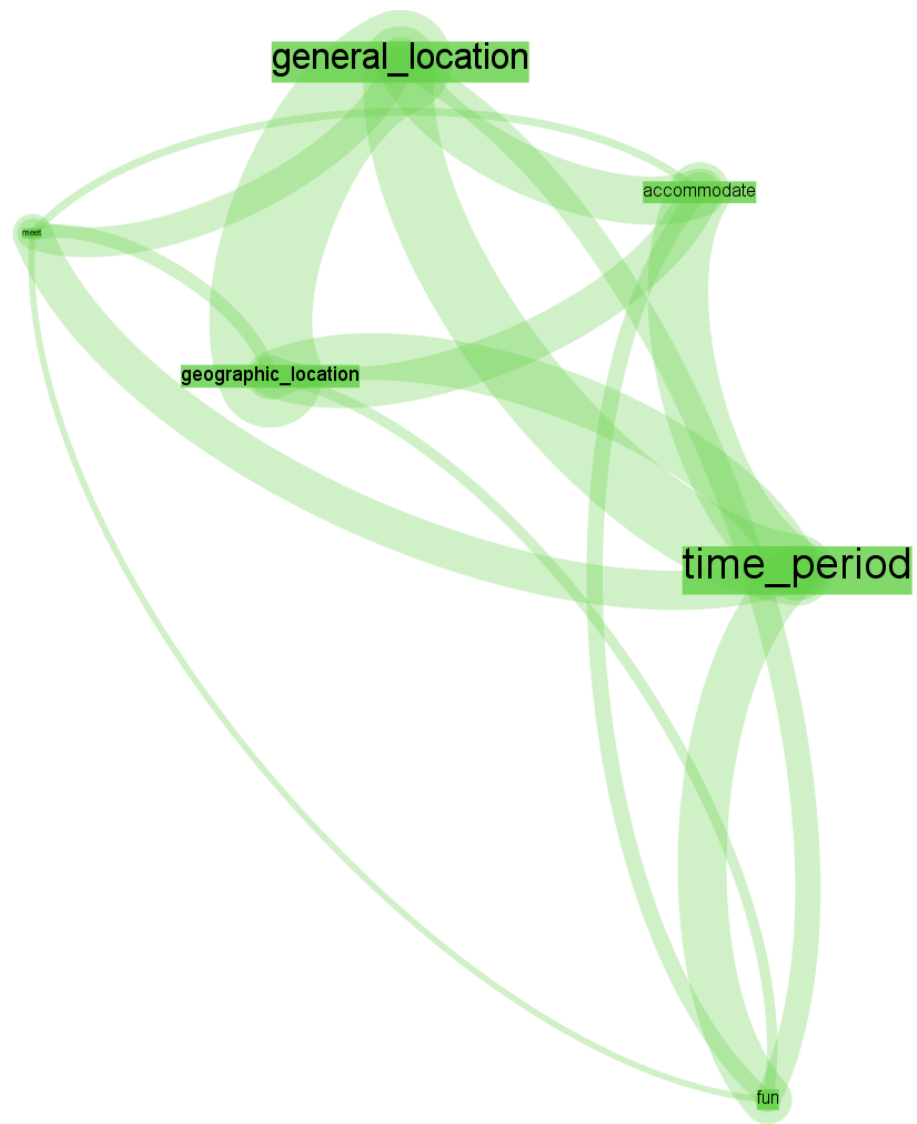
Sexual acts

The conceptual community forming around blow job – cock was populated by sex acts and behaviours (Figure 14). This supports the comment made by Ward (2015:128) in her study of MSM's sex-seeking on Craigslist, where it was noted that advertisements were often elaborate, 'describing sexual scenes with a dazzling level of detail'. Though other sex acts such as anal intercourse (fuck) and masturbation (wank) were present in Craigslist posts, oral sex was the most frequent sex act mentioned (Table 6). This preference for oral sex supports the findings from other studies into Craigslist (e.g. Clements-Nolle et al. 2014; Downing 2011), and the preference for oral sex expressed in surveys of MSM (Rosenberger et al. 2011).

However in addition to being a more popular activity, the current study places oral sex as being central to flows of sexual affect across Craigslist posts, as shown by its high betweenness centrality (Table 8). The centrality of blowjobs within the Craigslist corpus may be due to the predominantly fleeting nature of the sexual interactions being requested.

The following examples from the *Day in the Life* corpus illustrate the use of oral sex within Craigslist advertisements:

> ***Anyone need their cock servicing*** - Clean and discreet blowjob offered this morning, central location for a quick cum and go (Craigslist M4M, advertisement, 2013)

> ***Str8 / Bi Lads*** - I'll suck you off in the dark, just drop your jeans and I'll get on my knees. Tonight or this week. Discretion assured. Can accom (Craigslist M4M, advertisement, 2013)

> ★ ***Get your knob sucked this afternoon!*** ★ - I'm looking for someone near Charlton who would appreciate some quality oral attention ;) Private house, discretion assured. If you're 18-35 get in touch. Sorry but not into overweight or chubby guys, no offence (Craigslist M4M, advertisement, 2013)

> ***need a mouth on my hard cock now!*** - I really need a bj today, I'm str8 and need to be discrete I've never done this before so I'm not looking for anyone pushy… I'm just looking to get a blowjob not interested in returning the favour or anything else... Please put "ill suck that" in the subject line so that i can weed out the spammers… also let me know if you are going to swallow in the first email and include a pic. (Craigslist M4M, advertisement, 2013)

In the first ad, brevity is explicitly enforced by the man indicating 'cum and go', meaning ejaculate and leave. In the second ad, brevity is linked to the procedural nature of oral encounter, 'just drop your jeans and I'll get on my knees'. In the third, the time sensitive and emplaced nature of the sexual activity, 'Get your knob sucked this afternoon... looking for someone near Charlton', emphasises the transiency of the oral encounter to one place and time. In the last post, a 'str8' man requests oral sex from another man, without wanting to reciprocate. This may highlight the use of oral encounters to distance MSM sexual activities from what might be in jeopardy of becoming a gay identity, thereby remaining anonymous and distant whilst still engaging in pleasurable acts (Reynolds 2015:220). As Ward (2015:130) notes,

advertisements on Craigslist depict the world as a series of parts and sex acts that are not meaningful indicators of (queer) sexual identities. Within the corpus then, oral sex may function to attract men with a popular and pleasurable activity that can be performed given space-time-place constraints, whilst simultaneously keeping men distant and the encounter itself "meaningless" in terms of aggregative sexual identities.

Figure 14: Close up of community associated with sexual acts; Self-loops removed; Line thickness is indicative of frequency of co-occurrence
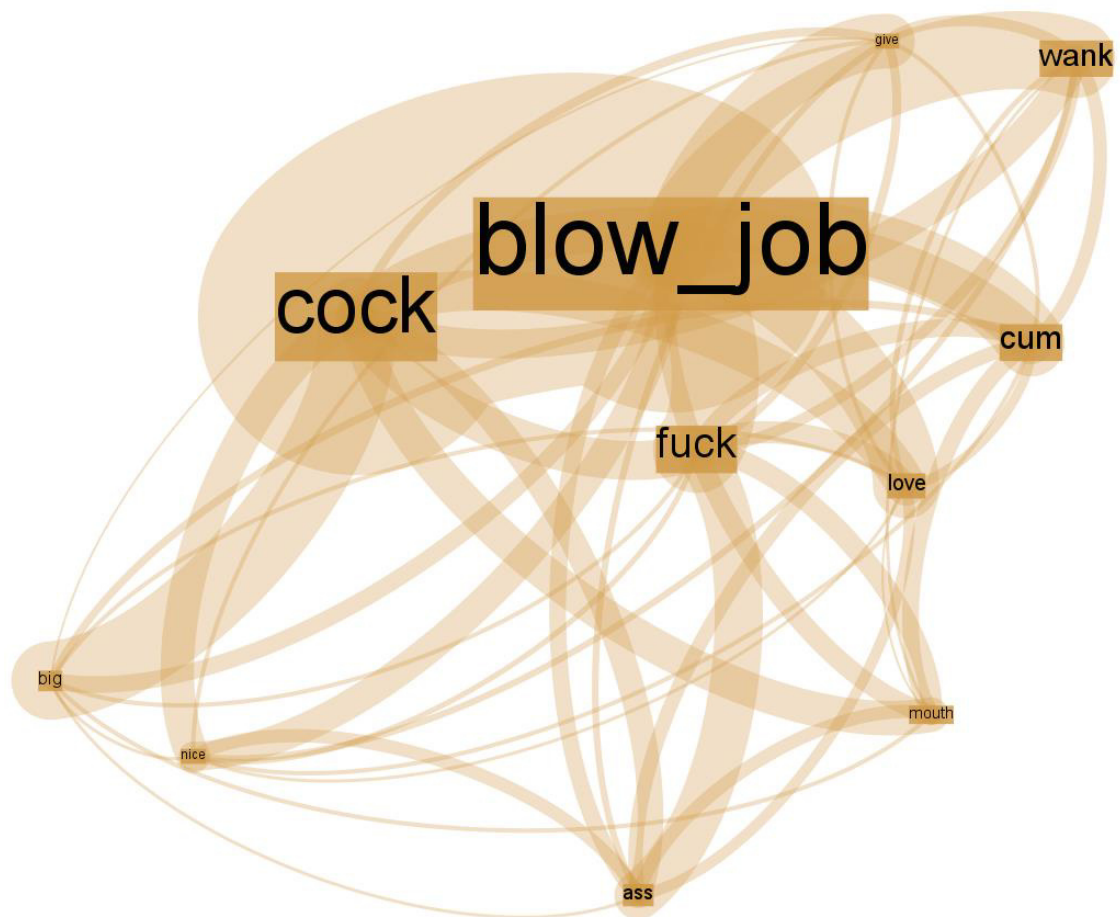
Visual aesthetics: Body descriptions and images

The third largest community within the network focused on the inclusion of images in Craigslist posts, supporting findings from previous research regarding the visual nature of MSM's digital sexual practices (see Jones 2009b; Mowlabocus 2010a).

Figure 15 illustrates the dense network of concept-word-things associated with the inclusion of images. The wider community alongside images was dominated by descriptions of body types and elements from sexual scripts. Specifically penis type, ethnicity, and the roles to be played during the sexual encounter, were found together in this community. In Frederick and Perrone's (2014) exploration of Craigslist advertisements, the authors code the presence of images as separate from descriptions about appearance. The relational approach using NTA helped view the visual and textual aspects of advertisements as functioning interdependently. For example a man providing an image of his penis, say, may be less likely to have concerns over anonymity, and therefore feel more able to describe himself. Alternatively, the inter-relationship between images and text may play an integral part of Craigslist posts.

In Martinec and Salway's (2005) paper on image and text in old and new media, the authors developed a schema for categorising the relationship between the two. This schema was based on the complementarity between text and image, and whether they expand upon or project each other. Following from this, images within Craigslist advertisements supported statements made in posts, or embellished upon them, as the following examples suggest:

> ***Fill my ass*** – [Image of buttocks][23] I am 100% bottom and I am looking for a mature top guy to fill my ass I am 100% clean and discrete can't accommodate but willing to travel reasonable distance (Craigslist M4M, advertisement, 2013)

> ***love sucking hung cock hanging out lads boxers*** – [Image of penis hanging out of underwear] Love sucking hung suck young cock as its hanging out of a lads boxers anyone the same? If you want to suck each other's email me can accommodate picture not me... but it's what I'm looking (Craigslist M4M, advertisement, 2013)

> ***Hung top searching for willing bottom*** – [Image of face] [Image of buttocks] [Image of face] [Image of penis] [Image of penis] [Image of buttocks] Good looking rugga bloke... Girthy eight inches cock... looking for a willing hole to slam my pole into.... long sweaty sessions or quick fuck buddies all welcome.... (Craigslist M4M, advertisement, 2013)

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[23] When quoting Craigslist posts, square brackets denote the presence of an image with a description of the image contained within the brackets.

In the first sex-seeking post, the image of a man's buttocks had the effect of reinforcing the request to 'fill my ass', and the statement that the advertiser was 100% bottom. In the second example the image had the effect of elaborating upon the textual element of the post, with the man indicating that the images were not of him, 'it's what I'm looking [for]'. In the third post, several images were provided which show a man, presumably the advertiser, in various poses. Included was an un-obscured picture of a man's face. Within this particular advertisement, the images had the effect of complementing the text, though not being explicitly referenced in either. The following example, taken from a male escort post on Craigslist, is of a different image-text relation that shows their complementarity:

> ***V HUNG BLACK MALE COMPANION 2NITE*** – [Image of man, face obscured with contact details] You are curious and want to find out a bit more. A bit about, well in a tall 6ft5 athletic built hard body black male escort. Good looks, interesting sense of humour comfortable to be around. I am also top. endowed with a XL package. Warm companion, satisfaction guaranteed Feel free to contact me to find out more. Manuel.
> X (Craigslist M4M → Telephone, advertisement, 2013)

The image used in this 'male companion' or escorting advertisement was of a topless man, with the image having been doctored in order to include a telephone number. The textual part of the post added a different yet complementary element to the image. Rather than being just an image of any topless man and a contact number, the post *became* an advertisement for sexual commerce – akin to a sex worker's calling card (Hubbard 2002). Despite the subtle affective differences across these examples, they each show a relationship between the image and text as they function in causing different sexual affect flows through Craigslist MSM sex-seeking assemblages. They also further illustrate the elaborate descriptions of MSM's sex-seeking advertisements noted by Ward (2015:128), demonstrating how they build upon both textual and visual modalities in order to produce fantasies and draw into themselves virtual possible futures.

Figure 15: Close up of community associated with images being included in posts; Self-loops removed; Line thickness is indicative of frequency of co-occurrence
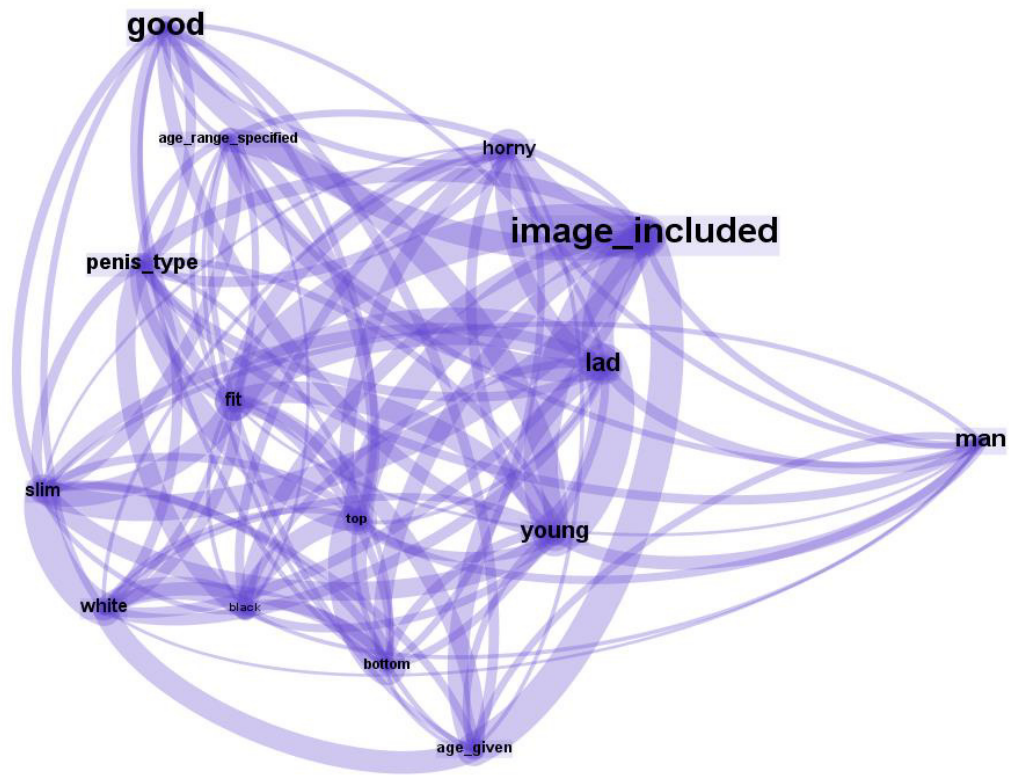
'No face pic no chat': Evidencing the fact

The fourth largest community within the network centred on the concept-word-thing 'picture', also commonly referred to as pic or pics within the corpus e.g. 'Mail me including a pic of your cock', 'If interested, email with a FACE PIC'. Though the word picture had a high betweenness centrality, suggestive of its importance in flows of meaning in Craigslist posts, the size of its attendant conceptual community was comparatively small (Appendix G, Section G.2). The low number of associations composing this group implied that the pictures community served a functional purpose within the network and was not used in elaborate descriptions. This contrasts with the previous community that was entirely descriptive and therefore strongly interconnected. The density of these communities bears this interpretation

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out, density being the number of edges as a function of the number of nodes[24]. The density of the community surrounding the inclusion of images was high at 0.1. In comparison, the density for the picture request community was almost half this, at 0.06, reflecting my qualitative assessment of this communities functional and therefore directed implementation in Craigslist advertisements.

In support of the literature (see also Chapter two), the language community around 'picture' in Figure 16 suggested an exchange of images, particularly of the face ('face pics'), as an important flow within Craigslist sex-seeking assemblages. In the following advertisements, pictures form part of reciprocal exchanges between men:

> *I want a man* – looking for man 40+ Must be D+D free… I'm slim, 5ft 10 cannot accommodate. Got a big dick? Pick me up?? Reply with picture please (Craigslist M4M, advertisement, 2013)

> *Fun tonight* – Bi guy looking for some fun tonight. I'm 21, average build, clean & ddf. Mostly into mutual sucking & wanking, but might be up for more. I can accommodate & I'd like to make it a regular thing if it goes well. You must be of a similar age, clean & ddf. Reply to this ad with a picture of your face or I will not reply to you (Craigslist M4M, advertisement, 2013)

> *Twink rent boy* – IMPORTANT send a picture or I won't reply I accommodate music playing come in! Let me know what you want how long and how much you're going to offer (Craigslist M4M, advertisement, 2013)

In the first two examples, the advertisements form part of sex-seeking assemblages, whilst the third, through the request for money, enters into an assemblage of commercial sex. Across all three examples however, pictures are important elements within the sexuality assemblages being generated, becoming passwords that allow further interactions to take place. There were however a comparatively small number of examples where pictures formed the focal point of the sexual assemblage that was being generated. Here picture trading or swapping images was the sexual activity being requested, as the following example illustrates:

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[24] Density=2*E/(V*(V-1)) where E is the number of edges, and V is the number of nodes or vertices. The value of the density ranges from 0 to 1: 0 being where no links are present, 1 being where all possible links between nodes occurs (Wasserman and Faust 1994:101)

Average build guy looking for a twink or smooth guy –
[Image of penis] I'm 20, average build, 7 inch cock. Looking
for a smooth or feminine type guy for fun or even just horny
picture swapping (Craigslist M4M, advertisement, 2013)

Figure 16: Close up of community associated with pictures; Self-loops removed; Line thickness is indicative of frequency of co-occurrence
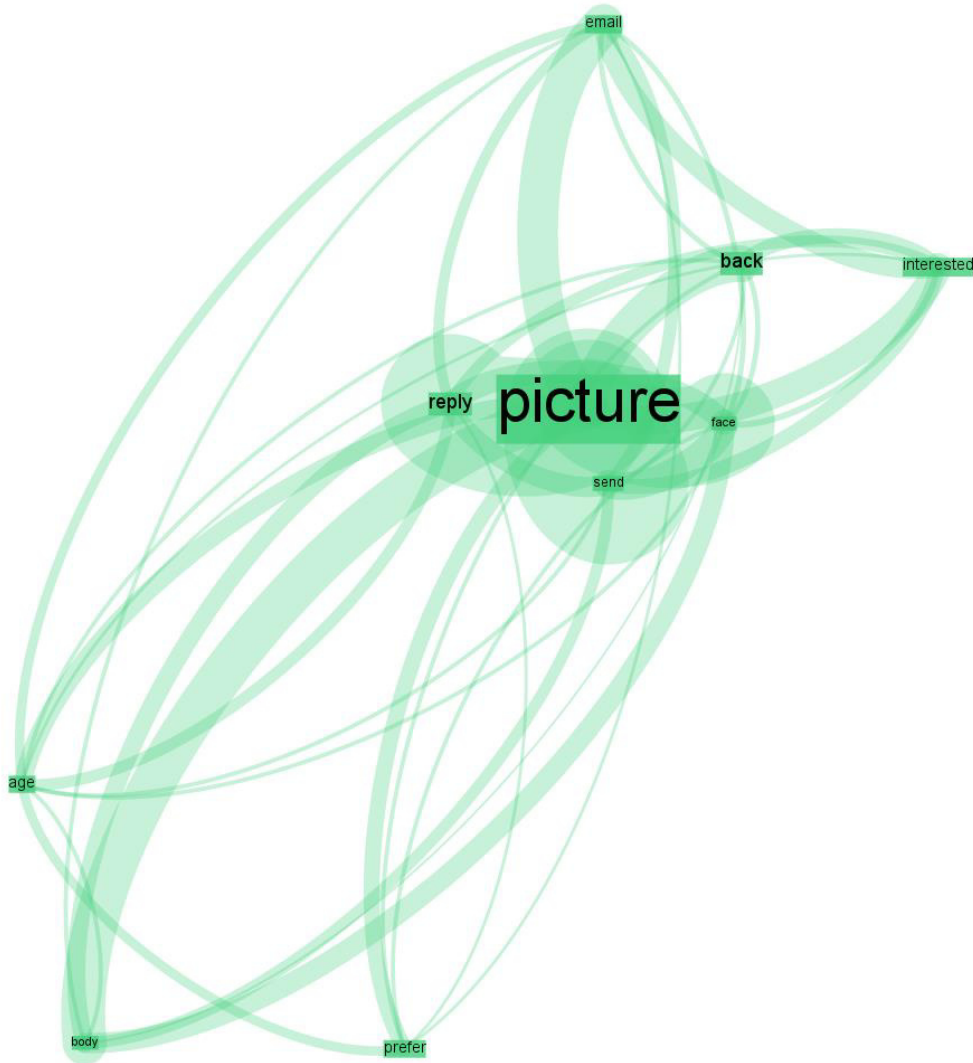
An expanded notion of safety

A further community of interest that was highlighted consistently through both directed and undirected versions of the network-assemblage related to safety during sexual encounters. Rather than being framed entirely in terms of condom use (Safe_sex), the types of safety that was discussed in Craigslist advertisements also included the disease statuses of the men involved, as well as "social safety", such as

discretion. This community of concept-word-things was dominated by discretion (Discreet) and the authenticity of sexual partners (Genuine), with these having the highest betweenness centralities within the community (Figure 17). However being clean was a recurrent request/statement in the Craigslist corpus, as indicated in Figure 17. Though there were some uses of clean that referred to cleanliness in the general sense, its main usage was mainly in relation to the absence of sexually transmitted diseases.

Figure 17: Close up of community associated with safety; Self-loops removed; Line thickness is indicative of frequency of co-occurrence
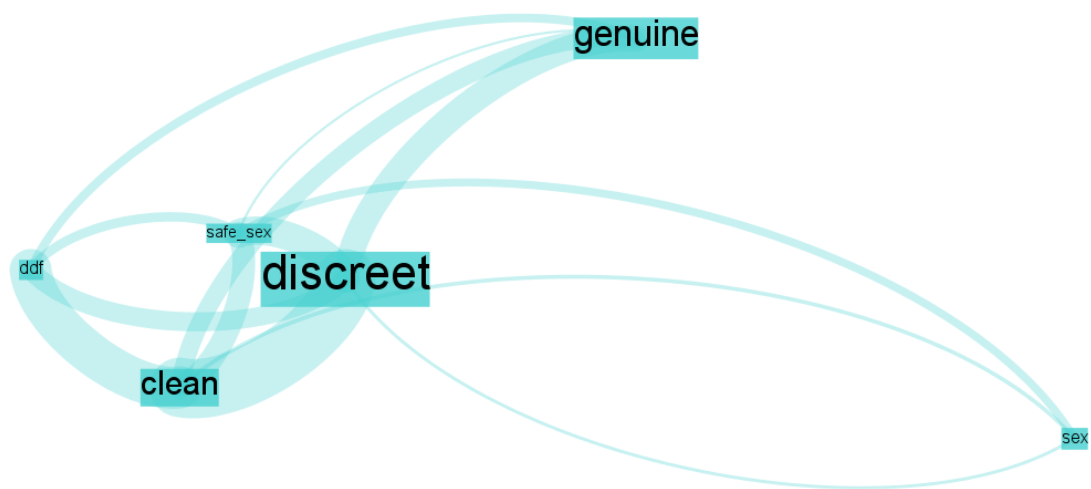
The following extracts show some of the relationships illustrated in Figure 17 in context. In addition to discretion, related with the discussion of cleanliness (clean) was also the use of the phrase 'drugs and disease free' (ddf), or variants thereof:

> Looking for a clean, discreet well endowed guy that can accommodate (Craigslist M4M, advertisement, 2013)

> I'm clean good looking and discreet - can travel only (Craigslist M4M, advertisement, 2013)

> im a fit white clean lad, std free! (Craigslist M4M, advertisement, 2013)

> I'm 21, average build, clean & ddf (Craigslist M4M, advertisement, 2013)

Aspects of sexual health relating to ddf and discretion have been identified in prior research (e.g. Clements-Nolle et al. 2014; Grov 2010; Haimson et al. 2014). However these studies have looked at the two discourses as exclusive themes, as in the case of Grov (2010:1390) who separates them into 'Drug use and drug-seeking' and

'Discretion and relationship infidelity'. By using NTA as a method of engaging in a relational analysis, the interactions between the discourses of discretion and health were (graphically) illustrated. Rather than being two discrete and competing concerns, the NTA analysis suggests that these two discourses combine, along with other elements, to open up the concept of safety within MSM Craigslist sex-seeking from one which is solely health focused.

Sexual identity labels

A final community of interest that emerged from the modularity analysis related directly to sexual identities, forming around the concept-word-thing triad of straight – bisexual – gay (Figure 18). However straight – bisexual was the strongest bond within this community, and, as was highlighted by the frequency analysis (Table 6), straight and bisexual were mentioned in a greater number of advertisements than the label gay – 23, 21 and 7 per cent of advertisements respectively. This supports previous studies that suggest that MSM on Craigslist tend to disavow gay identities, instead emphasising straight and bisexual identities as part of the 'drama and spectacle of white male homo-sociality' (Ward 2015:130). The following extracts show these different uses for sexual identity labels. In the first two extracts, sexual identities were in reference to the man placing the advertisement, whilst in the last two, sexual identities were used in relation to partner preferences:

> masculine, fit, str8 acting bi guy looking for men in suits age 18-45 (Craigslist M4M, advertisement, 2013)

> decent looking bi guy really really horny today, leaving doors open for any str8/bi guys under 27, students particularly welcome (Craigslist M4M, advertisement, 2013)

> Looking for NSA fun. Must be discreet and slim straight acting (Craigslist M4M, advertisement, 2013)

> I'm ONLY looking for real bisexual guy(s). Bisexual meaning that you are interested in men as much as in women. If you are not into women please don't waste your and my time replying (Craigslist M4M, advertisement, 2013)

Sexual identity functioned across these advertisements to territorialise sexual spaces, however they were not integral to flows of desire within these spaces. This

community was relatively small, roughly 6 per cent of concept-word-things in the network, and was the most susceptible to changes to the layout of the network. For example under more conservative modularity layouts with fewer communities allowed, sexual identities were subsumed into the images included community, becoming another descriptor. This movement highlights the dual role of sexual identities as being information given off, but also as elements in making sexual affects flow. As a result it could be surmised that sexual identity was precariously placed in terms of its functionality within Craigslist sex-seeking advertisements. The following advertisements further illustrate the use of sexual identities within the corpus:

> *Looking for big muscle man.* – Prefer him to be straight or bi but don't mind if you're gay too. Would prefer if a TOP, but Versatile is good too, rugby player, bodybuilder or just exceptionally fit I will tend to all your needs and make you cum if you want (Craigslist M4M, advertisement, 2013)

> *wank off buddy –* [Image of penis] [Image of penis] [Image of body] hello 27, 5'10, slim, good looking, genuine guy after someone for a one off or something on regular basis, wank, cuddles, edging TO REPLY YOU SHOULD BE: -23-35 - based in London, - can accommodate - HIV free - no time waster THE ONLY WAY TO GET A REPLY IS, THAT you should say in your email: - age –location - if you can accommodate - HIV status - STD? - something about you - gay/bi or straight - PICS (NO PICS= NO REPLY) thanks, all this stuff is just to weed out Craigslist time wasters (Craigslist M4M, advertisement, 2013)

> *Do any straight men need their cock sucked?* – Please don't message me if you're gay. My fetish is to suck off a straight dude only - sorry but not looking for gay lads right now. I'm a good-looking sexy gay boy, my fantasy is to blow a fit straight lad who is totally straight. I can accommodate, 100% discretion assured, no reciprocation required. Just lay back, unzip and let me relieve you, then go. Ultimate pleasure guaranteed! You must be clean. If you go to the gym, jump to the front of the queue! (Craigslist M4M, advertisement, 2013)

In the first two ads, the triad straight – bisexual – gay is invoked, with this being a common formation throughout the corpus. Here sexual identities take on a positive note, delineating a sexual space open to all sexualities. In the third example, gay was invoked in order to draw a territory around any forming sexuality assemblages, and

which precluded gay identifying men. The same advertisement also taps into the fantasy of the straight man turned gay, as was also been found by Reynolds (2015) and Ward (2008). In speaking back to previous research, the network perspective further illustrates that within the context of sexual spaces that are not heavily invested in particular sexual identities, as Craigslist is, then these identities are invoked as a means of interactional achievement and for functional purposes. However thinking with/through assemblages and emergence, the importance of sexual identities cannot be assumed from the presence of these advertisements in sexual venues.

Figure 18: Close up of community associated with sexual identities; Self-loops removed; Line thickness is indicative of frequency of co-occurrence
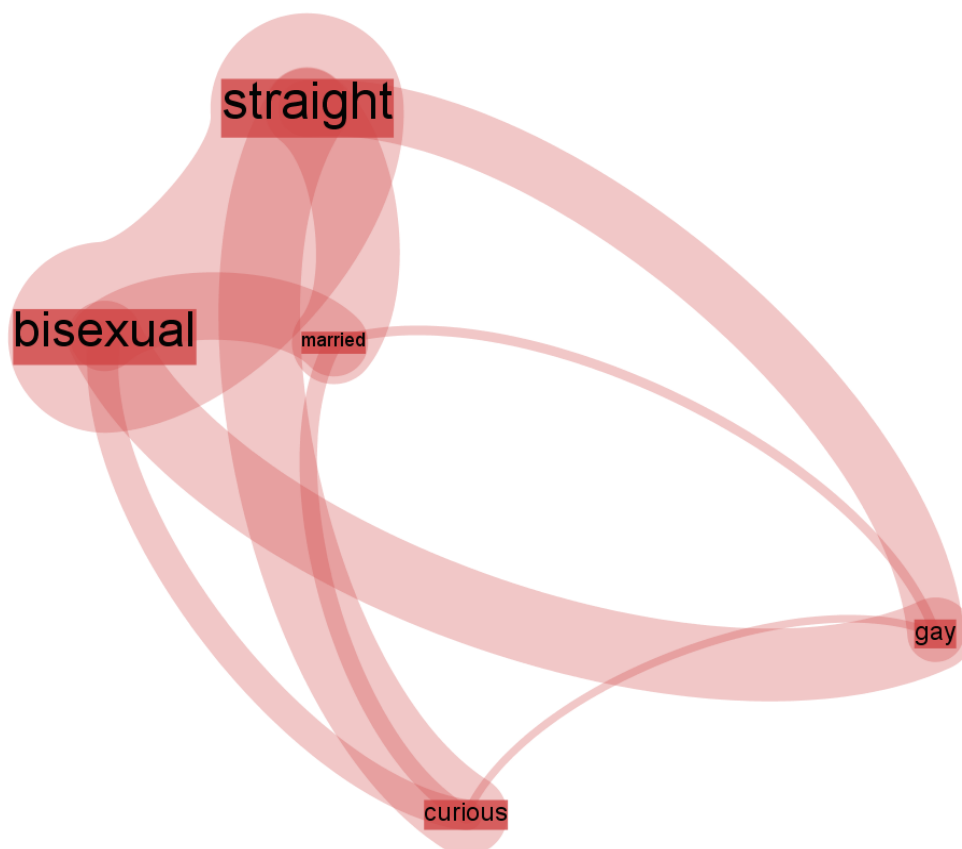
6.4.3 Going beyond the Royal approach: Exploring the rhizomatic interplay of functional elements within Craigslist MSM sex-seeking posts

In the previous section I deployed NTA to add complexity to the Craigslist sex-seeking literature, illustrating communities of concept-word-things that both confirmed and

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added to categorisations arrived at in previous studies. However where network analysis makes a distinct contribution is in exploring the relationship between different groupings or communities within and across the corpus. Through the literature on Craigslist, authors hint at the interactions between various discourses. In Lee (2007), Reynolds (2015), and Ward's (2008, 2015) studies, the use of qualitative methods meant that their analyses accounted for these interactions, to an extent. In the more quantitative Craigslist literature, interactions are assessed through the use of cross tabulation, placing one variable against another. For example Frederick and Perrone (2014:873) state that:

> The choice of picture seemed to be related to the type of sex or "scene" that was sought... if oral sex was sought, at times, the ad featured a picture of a penis (22%). If anal sex was desired, a picture of buttock or of a sphincter was sometimes displayed (40%).

Here the presence and type of image is placed against sexual acts/scenes in order to explore their inter-relationship. In the current analysis, rather than static objects meeting and dividing, starting from a rhizomatic reading of Craigslist constructs advertisements as a relational field of interactions. This relational field can be interpreted through a review of the interactions between communities.

Within the network-assemblage shown in Figure 19, concept-word-things have been collapsed into their respective communities. As a community only view of the Craigslist corpus, Figure 19 visualises the relationships *between* conceptual communities that compose the corpus. The size of the label gives an indication of the number of concept-word-things contained in each community, whilst the thickness and colour of the connecting lines indicates the number of connections between these communities (darker shade being a greater number of connections). This graph was based on un-weighted linkages, meaning that even if a linkage occurred between concept-word-things in different communities more than once, they contributed only once to the overall thickness of the connecting line. The supporting metadata for Figure 19 can be found in Appendix G (Section G.3).

The strongest community linkages (i.e. those that were the most common), occurred between the sexual acts community (blow job – cock), and that associated with the

inclusion of images (n=507). This supports Frederick and Perrone (2014:873), quoted above, who found linkages between images and the types of sex being requested. The second strongest linkage was between sexual acts and the setting for the sexual encounter (Time – location – geography) (n=463). Previously in this chapter I have suggested that the types of sex acts advertised via Craigslist, focusing on oral sex, may be linked to the brevity of the sexual encounters. The strong linkage between sex and time-place-space implies that on Craigslist at least, one may be indistinguishable from the other, a time-place-space-sex assemblage.

The third strongest linkage between communities occurred between the setting community (Time – location – geography) and the inclusion of images (n=416). This therefore implies that the relational field of Craigslist sexuality was heavily bounded by the triangle forming between sex acts, setting, and the provision of visual images/descriptions. These could therefore be said to be the components of the desiring machine of MSM's Craigslist sexuality assemblages. However of interest is the relationship between the smaller conceptual communities that molecularly move through this aggregative structure. Specifically I want to focus on the community relating to sexual identities, given that sexuality forms a large part of studies into digital sexual practices.

The strongest links with the sexual identity community (Straight – bisexual gay) were with the inclusion of images (Image included) (n=151) and sexual acts (Blow job – cock) (n=101), with relatively few links to the safety (Discreet) community (n=55). An *a priori* assumption would be that MSM who indicate straight or bisexual identities may be more likely to indicate they want discretion. Though this analysis suggested this was not the case, it should be kept in mind that the NTA method adopted here looks for closely associated concept-word-things, rather than those that occur anywhere in a post.

Figure 19: Community structure of the Craigslist corpus showing linkages between conceptual communities; Size of label indicates the number of concept-word-things within community; Thickness of lines indicates the number of connections between communities.
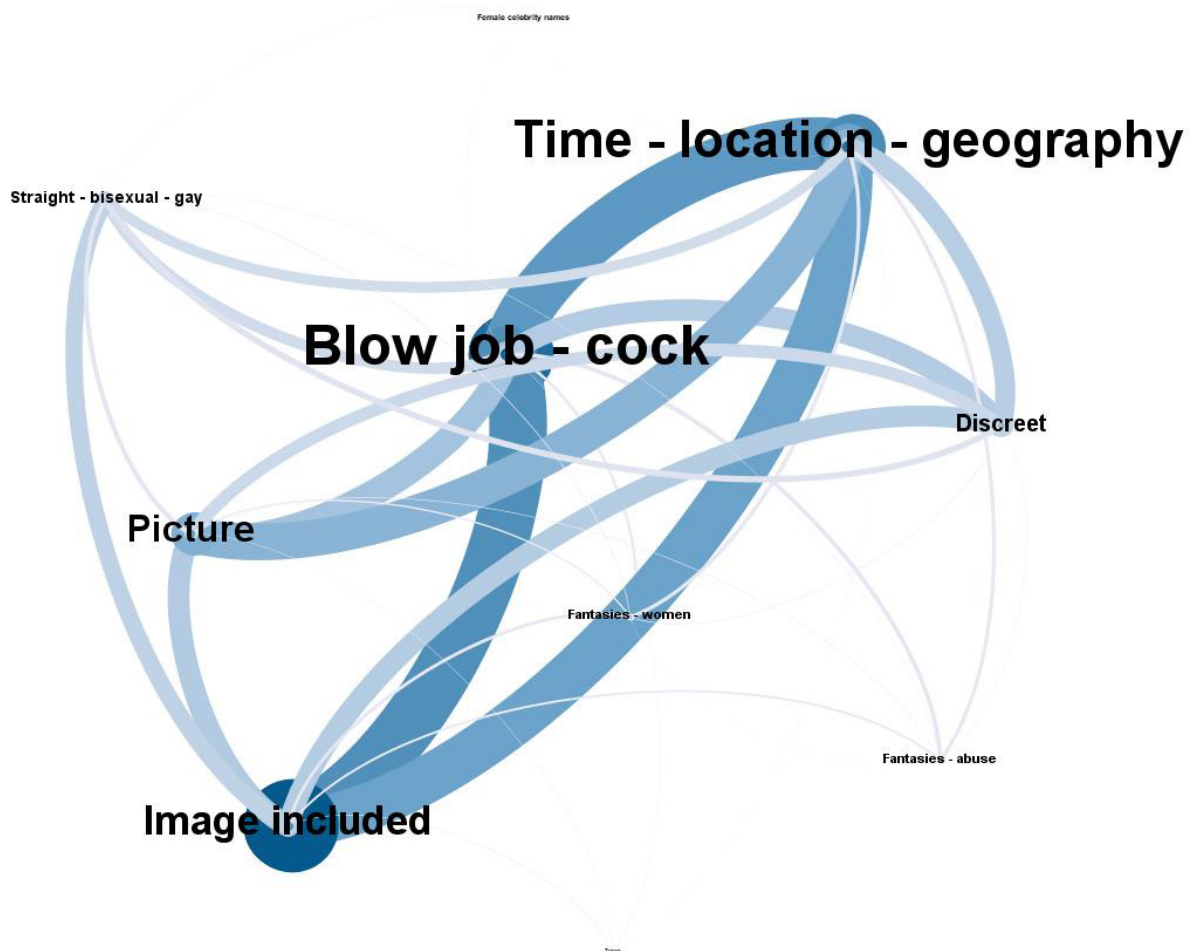
The following examples are of advertisements that mention sexual identities, and display the associations indicated above. Highlighted in these advertisements are words associated with the different communities: red indicates the sexual identities community, yellow the sexual acts community, and blue the inclusion of images. I have also highlighted references to discretion (grey), in order to illustrate that they do occur in sexual identity posts:

> *AWESOME BLOWJOB FOR STRAIGHT LADS NOW* – [Image with written words 'I love sucking cock'] If you're straight/bi and want discretion but love a guy to suck your cock, read on. Easy going, masc, guy, 30yrs, tall, slim build, normal lad, likes to suck off slim fit blokes (under 30yrs). Can accommodate at my place (totally discreet) or come to you in north/east London if local to me. Get back with body & cock pics so I know you're serious and let's sort out a secret arrangement.

You get your cock sucked when you're horny and no one will ever know (Craigslist M4M, advertisement, 2013)

Horny Black Cock Needs Sucking - [Image of penis] [Image of penis] [Image of man in underwear] Bi-Curious black guy, I'm 24 Straight, Like getting sucked off by guys and chill and watch some porn. Not looking for sex so don't bother if that's what you're after. Under 30's please, Only replies with pics will be considered Race not a problem Can't Accommodate (Craigslist M4M, advertisement, 2013)

*** looking for a straight wank buddy *** - [Image of penis] Hello 24 year old white guy with girlfriend, looking for a wank buddy. Not getting a lot at home so need a little kinky release. Must be at yours so please host, or we can go somewhere discrete. Please be white, straight and no older than 35. Also please note this is JUST for wanking - no sucking or penetration etc.! (Craigslist M4M, advertisement, 2013)

Bi Piss drinker – [Image depicting fetish for urination] I'm a 43 year old sub bi guy with a very willing mouth looking for guys, girls or couple to use it and fill it with cum/piss. Available now all day today until late. Unable to accommodate (oh 1 two three 4 five six seven eight nine oh) (Craigslist M4M → Telephone, advertisement, 2013)

Though it is hard to derive a pattern in the sequencing of associations from these limited examples, visually examining their general location gives some indication of their function. Identity-image-sex communities are clustered at the beginning of each advertisement, followed by more extended prose that describes the advertiser or the sexual scene he wishes to access. Furthermore, the associations of identity-image-sex are densely grouped together in these examples, with few extraneous or stop words in between each community. Mention of sexual identity and sex-acts in three of the four examples are part of the headline, punctuated by the inclusion of images – meaning that in addition to appearing at the top of advertisements, sexual identities and sex-acts appear in the list of advertisements as presented when initially entering the Craigslist M4M sex-seeking page. These communities of concept-word-things are therefore the first elements of the sex-seeking assemblage that MSM encounter when entering Craigslist. Identity-image-sex may therefore function together as a way of generating affects, being flows of men from the main Craigslist M4M casual encounter page, into individual advertisements.

Though discretion is mentioned in two of the sex-seeking advertisements above, its lack of a strong relationship with sexual identities in the corpus as a whole may suggest that straight and bisexual identities act by piquing sexual interest, and that it is more important to support these identity claims through graphic descriptions and images, rather than mitigate them through requests or offers of discretion. Sexuality may indeed tap into a specific homosexual fantasy of the 'great dark man' (Edwards 1997) – being a heterosexual male who has sex with men – however claims of being straight or bisexual cannot, it appears, go unwarranted. This brief exploration of Craigslist advertisements suggests that sexual identities have a function within some of the sex-seeking assemblages forming on/with Craigslist, rather than assuming *a priori* that such a role exists and coding data to determine this i.e. by counting mentions of sexual identity labels. Furthermore, the unique contribution of the relational approach is in exploring whether and how elements function in relation to one another; in this instance that sexual identities may function in relation to the inclusion of images and descriptions of sex-acts to draw men in.

6.5 Conclusion: A minor approach, 'Not better, just different'

In outlining a minor mode, Deleuze and Guattari (2005:372) indicate that the method of following produces a different kind of knowledge and in this chapter I sought to instigate following as a way of doing social science research. I implemented a reading of digital sexual practices as a network-assemblage of concept-word-things, rather than as solely static representations of the body online. In doing so I have advanced the baroque complexity reading of MSM's digital sexual practices (Kwa 2002), by looking down into a node within the network-assemblage mapped out in the previous chapter, as a network in itself. Though the main aim of this chapter was to make a methodological contribution, it also makes an empirical contribution worth noting. As indicated in Appendix F, the majority of studies that explored MSM's sex-seeking via Craigslist were based in the United States – bar Lee (2007), whose study drew on advertisements from the Vancouver section of Craigslist. The empirical contribution of this chapter has therefore been in exploring MSM's use of Craigslist within a UK context.

Though Haimson et al. (2014) used text processing in order to explore a large corpus of Craigslist advertisements (N=252,786), the use of NTA has not been undertaken previously to analyse MSM's digital sexual practices. The application of a relational analysis was therefore the methodological contribution of this chapter, by marking a divergence from previous studies that have largely relied on content/thematic analyses of MSM's sex-seeking advertisements. NTA provided an alternative form of analysis to those drawing on grounded theory and constant comparison (Glaser and Strauss 1967). Rather than iteratively reviewing each item, in this case each sex-seeking advertisement, and deconstructing them into codes, I was presented with all data simultaneously – a continuous comparison. In Chapter nine I discuss the implications of this method of analysis for future researchers.

In continuing the cartography of digital sexual practices begun in the previous chapter, it was found that the knowledge gained from the deployment of a different way of reading was just that; different. Adopting a minor mode of analysis, by following linkages between media and concept-word-things, has generated a relational understanding of MSM's digital sexual practices. In this chapter a relational approach worked as well as, rather than superseding the knowledge produced via other methods. For example NTA confirmed the themes and categories derived from a Royal approach. These themes included the importance of pictures, the time-space-place dependency of advertisements, and the importance placed on safety and the avoidance of physical threats. However the use of a network-assemblage approach elaborated on the complexity of these themes. Safety, for example, was associated with a wider set of concepts than simply personal and sexual safety through "safer sex", also encompassing discretion – a type of social safety perhaps.

As indicated in relation to a network sensibility, producing visualisations was an important aspect of my methodological approach. It highlighted the relationship between aspects of advertisements that have up until now remained distinctive analytical and conceptual units. For example sex-seeking advertisements on Craigslist have previously been viewed as discrete elements which are added together, primarily in the exchange of information (see for example Rosenbaum et al. 2013). In contrast the minor reading I adopted illustrated that sex-seeking advertisements on

Craigslist function as a whole *and* as a network-assemblage of images, time-place-space, and sex. Along the lines of emergence (Buchanan 2015), elements within advertisements, as with assemblages more generally, functioned together to produce something more than the sum of their parts.

This chapter and the previous mark the substantive methodological contribution of my study, through the explication of a minor approach to researching MSM's digital sexual practices. This approach was informed by a network-assemblage framework, which combined DeleuzoGuattarian assemblages and Actor Network Theory. However Deleuze and Guattari's (2000, 2005) assemblages are heavily embedded in their wider and critical theoretical perspectives on capitalism, as emblematised by their book series *Capitalism and Schizophrenia*. Accordingly capitalism, and its effects on sexuality, is explored in the following chapter, taking the specific example of MSM's digital commercial sex work.

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Chapter 7 – 'Young guy looking for mutual arrangement': Capitalism and digital commercial sex

In the previous two chapters I adopted network-assemblages as a framework for engaging in a minor analysis of MSM's digital sexual practices. This framework brought together DeleuzoGuattarian assemblage theory, with its rich reservoir of concepts, with the more methodologically operational Latourian networks (Muller 2015). However Deleuze and Guattari's (2000, 2005) work is inseparable from their understanding of capitalism as a way of structuring the world, specifically its reduction of heterogeneity to the principle of exchange (O'Sullivan 2010a:260). Therefore my use of DeleuzoGuattarian assemblages also situates MSM's digital sexual practices within capitalism. Here capitalism is used to refer to a specific regime of signs and practices, or how assemblages link up (Deleuze and Guattari 2000:224), rather than referring solely to an historical epoch (O'Sullivan 2010a:261).

In her study of the sex toy industry, Curtis (2004:95) suggests that capitalism, through the market, 'produces desires, thus encouraging sexual innovation'. Accordingly, in this chapter I map out how capitalism and the market of/for sexual desires is productive of sexual enunciations. I outline different assemblages of commercial sex encountered over the course of my observations in the field, specifically advertisements for sexual services on Craigslist and cybersex performances in exchange for money.

I used a provisional definition of sex work – as the 'range of activities in which sexuality is explicitly being sold' (Cohen et al. 2013:4) – to interrogate the digital materials generated in my study. However in this chapter I interchangeably adopt the terminology "commercial sex" in order to encapsulate the wide array of assemblages that digital media, bodies, money, and sexual affects come to form. Some digital commercial sex assemblages are the digital re-working of offline forms of sex work, such as escorting, where technology acts as intermediaries of activities (Latour 2005:39). Other forms of commercial sex assemblages are mediated by technology, meaning that they produce emergent enunciations that would not have existed otherwise (Latour 2005:39). Craigslist and cybersex reflect these two

extremes, representing new spaces for soliciting clients, and new forms of commercial sex, respectively. The decision to examine Craigslist and cybersex in this chapter was therefore strategic in order to illustrate, (1) the increasing enrolment and diversification of technologies into commercial sex, and (2) to place these current trends of digital sexual commerce within the increasing technological complexity of capitalism (Vandenberghe 2008).

The Internet has emerged as a new venue for commercial sex, with workers moving online, indoors, and off the streets (Bimbi 2007; Grov and Smith 2014; McLean 2013, 2015; Tyler 2014, 2015; Walby 2010, 2012). Digital media are therefore changing the socio-sexual arrangements of commercial sex. These changes are in line with theories of the social influence of technologies that see social systems adapting and adopting technologies (Bijker et al. 2012). However commercial sex has shown itself to be highly pervasive alongside other technological changes, not just its digitisation. Quinn and Forsyth (2005:196-197), for example, suggest that the telephone and the beeper altered the socio-sexual relations of sex work, with streetwalkers and those engaged in outdoor sex work becoming call girls. This chapter therefore adds to the exploration of the different forms of commercial sex that assemblages with digital media produce. In order to situate my discussion, the following section briefly outlines current research on male for male sex work, with a particular emphasis on digital sex work.

7.1 The known within (digital) male for male sex work

Several studies have attempted to estimate the prevalence of sex work amongst MSM, however few have explored digital sex work specifically. A European survey of MSM (N=174,209) found that buying sex was more common than selling it, 7 per cent compared to 4.5 per cent respectively (Berg et al. 2015:289). Of those men who engaged in transactional sex, 52 per cent sold sex whilst 60 per cent bought sex, with the majority engaging in either activity once or twice in the year before the survey (Berg et al. 2015:289). These findings therefore suggest that although prevalent, transactional sex was infrequent amongst the MSM surveyed. In Australia, a survey of the sexual lifestyles of gay-bisexual men (N=2,306) found that one in six of the

MSM surveyed (19 per cent) reported having *ever been paid for sex* (Prestage et al. 2014:1295). In the UK, the National Survey of Sexual Attitudes and Lifestyles found that amongst men, the probability of *paying for sex* in the past 5 years was almost five times greater amongst men who had had same-sex contact, compared to those who had not (Jones et al. 2015:122). Furthermore, a survey exploring student sex work amongst university students in the UK found that 4.8 per cent had been involved in the sex industry in some capacity, with the percentage of men involved in the industry as a worker being greater than women – 5 per cent compared to 3.4 per cent for women (Sagar et al. 2015:17). Drawing on these studies, there is some indication that there are gender differences in sex work, and that sex work amongst MSM is recurrent across different settings and geographies.

Though attempts have been made to enumerate the prevalence of MSM sex work, Weitzer (2009:222) indicates that the nuances of male sex work are relatively under-researched within the sociology of sex work – however see Browne and Minichiello (1995) for an early example of work in this area. Recent studies are however beginning to address this deficit (e.g. Aggleton and Parker 2015; Minichiello and Scott 2014; Minichiello et al. 2013). What empirical research exists indicates that experiences of sex work are gendered, with men occupying different socio-sexual positions to women. Male workers have been found to be involved in sex work in more sporadic and transitory ways compared to female workers, and are less likely to be coerced into their prostitution (Weitzer 2009:223). The transience of male involvement in the trade may owe itself to this lack of coercion, therefore facilitating easier exit from commercial sex markets. Male and female workers also have different experiences whilst engaging in sexual commerce. Female sex workers have been found to face greater occupational hazards, making the sale of their sexuality more precarious than for men (Jamel 2011; Weinberg et al. 1999). There is therefore at least some cause to suggest that commercial sex documented in this chapter may be specific to male workers. In addition to the gendered experiences of sex work, digital male for male sex workers may reflect a particular demographic.

In Mimiaga et al.'s (2009) mixed methods study conducted in the US, the authors compared male for male sex workers (M4MSW) recruited online and offline (N=32).

Some significant differences between the two groups of M4MSW were found. Internet workers were younger, whilst street workers had lower education levels and unstable housing (Mimiaga et al. 2009). Similarly in McLean's (2013:11) thesis exploring the online male sex trade in Sydney, it was suggested by participants that sex work was a common experience for young (attractive) gay men. These patterns may reflect the proliferation of middle class sex work highlighted by Bernstein (2007a, 2007b). Middle class sex work refers to the increasing number of sex workers whose engagement in sexual commerce is one step removed from survival sex, instead using the money to support a middle class lifestyle (Bernstein 2007b). Rather than being destitute and constrained by material resources, online male sex work is associated with lucrative returns given minimal working costs (McLean 2015).

As previously highlighted, the findings from Berg et al.'s (2015) EU survey suggest that the majority of male for male sex work, whether buying or selling, is infrequent – less than once or twice in the previous year. This therefore raises doubts about the sustainability of such sex work as a sole source of income, and in doing so provides some support for the view of a middle class engagement in commercial sex for extra income to supplement lifestyles.

The studies reviewed so far highlight prevailing or predominant trends within sex work. However typologies of sex work provide a more useful starting point for thinking through the practices of such work, even if they elide some of the complexities of peoples' lived experiences – see for example Tyler (2015) who builds upon dominant discourses/typologies in his study of male sex work. I explore some of these typologies now as they helped in coming to terms with my data.

In a qualitative study exploring male sex work in Canada, Dorais (2005) identified four patterns of sex worker behaviour based on biographies and reasons for sex work. These patterns included: the outcast, the insider, part-timers, and the liberationist. Outcasts were men who experienced deprivation and abuse, therefore their engagement in sex work was as a means of survival (Dorais 2005:36-37). Part-timers however engaged in sporadic sex work to provide additional money (Dorais 2005:39). Insiders were men who had grown up around the sex trade, but viewed it as a profession and not as a means of survival (Dorais 2005:40). The final group of male

sex workers were liberationists, using sex work as a way of exploring sexuality and affirming themselves (Dorais 2005:41-42). Though useful for understanding the singularity of the experiences of his participants' sex work, the categorisations developed by Dorais were specific to the forms of sex work explored – being street workers, strippers, and escorts. A more useful typology, because of its generality, is one based on the presumed reasons for engaging in commercial sex (Harcourt and Donovan 2005).

Commercial sex can be direct, where activities are engaged in for a fee (Harcourt and Donovan 2005:201). A second type of commercial sex could therefore be defined as activities where the transaction is not recognised as prostitution, as it is not the primary source of income for the individual – therefore being indirect sex work (Harcourt and Donovan 2005:201). For example an opportunistic approach from someone exchanging money for sex could be classified under this schema as indirect sex work (Harcourt and Donovan 2005:203). This opportunism was particularly important in understanding my data, as I discuss in relation to commercial sex on Craigslist (Section 7.3.3). Having situated this chapter within the sex work literature, the following section briefly re-introduces assemblages as the theoretical refrain for this chapter, this time paying closer attention to the role of desire and capitalism.

7.2 Theoretical refrain on assemblages, desiring-production, and exchange

Assemblages are a way of analytically arresting multiplicity whilst allowing for its continued presence within complex systems. Applied as a framework for the study of commercial sex, the worker forms part of a cyborg assemblage (Haraway 1991), composed of bodies, technologies, fiction, fantasy, time and space (Extavasia and Addison 1992). Brewis and Linstead (2000:200), writing on offline forms of sex work, suggest that such sex work assemblages could include:

> The telephone – directory – escort agency – motel/hotel/clients home – pager – mobile phone – transport – the clock – money – transport – fashion – cosmetics – images – vibrators – costumes – condoms

In Section 3.3.1, I highlighted the double nature of assemblages, being composed of contents (machinic elements) and expressions (enunciations). Brewis and Linstead's (2000:200) sex work assemblage focused on its human and non-human contents – its machinic elements. In this chapter I concern myself with the assemblages of enunciation of digital sexual work, and the flows of desire that compose and are produced by these expressions. As I suggest in Section 3.3.3, desire is an important concept when working with Deleuze and Guattari's assemblage theory, particularly in an analysis of the effects of capitalism.

Desire is commonly invoked when researching sex work (e.g. Harriman et al. 2007; Sanders 2008; Zatz 1997). Brewis and Linstead (2000:203) go so far to suggest that any study of prostitution must explicitly address desire. However the dominant discourse on sex work theorises desire as heavily anthropocentric and embedded in a Freudian conceptualisation of desire as lack (Brewis and Linstead 2000:7). Rather than solely representing lack, DeleuzoGuattarian desire as affect is a more connective and therefore productive force (Malins 2004:89). In the proceeding chapter, where desire is invoked, it relates to this productive force as it flows through various sexuality assemblages, generating affects in the social and material world (Fox and Alldred 2013:773). Conceptualising desire differently, as productive, in addition to being central to a Deleuzian understanding of assemblages, also opens up new spaces for considering sex work as polymorphous. For example sex work can be an encounter, an industry, or a site for the formation of subjectivities (Brewis and Linstead 2000:204).

> Capitalism has always been, and still is a remarkable desiring-machine. Flows of money, flows of the means of production, flows of man-power, flows of new markets: it's all desire in flux (Deleuze 2004:267)

In this quote, Deleuze suggests that capitalism is associated with various flows, disjunctions, and connections, and as Roffe (2010a:40) notes, this is responsible for desire production. Capitalism decodes and de-territorialises, freeing up flows, whilst simultaneously territorializing and recoding them, recapturing flows in order to extract surplus value (Bonta and Protevi 2006:66-67). Colebrook (2002:67) summarises that capitalism encourages the proliferation of the new but is always

grounded on logics of exchange, something which Roffe (2010a:42) links to ever more insidious forms of un-freedom. As an example of creative disjunctions under capitalism, D'Emilio (1993:474) suggests that capitalism created the conditions that allowed homosexual desire to be expressed through the separation of sexuality from procreation. However this separation leads to further identities that can then be capitalised and commoditised, as for example highlighted by Light et al. (2008) and Light (2007) where masculinity was commoditised as part of the design of the Gaydar sex-seeking website. However when discussing commercial sex in relation to capitalism, the nature of the exchange, whether gift or commodity, and how the exchange takes place (i.e. whether it reproduces class processes), needs to be considered as it comes to affect that which is exchanged (van der Veen 2001) – and therefore its enunciation.

Gift exchanges are often compared to those of commodities in that the gift giver remains an element of the good or service, whereas commodities are alienated from the giver (Appadurai 2003:11). This therefore forms the main focal point for arguments against prostitution, which see the market as perverting the reciprocity that is 'required to realize human sexuality' (van der Veen 2001:31). Alternatively Bell (1991:159) suggests that whereas the value of a commodity is made explicit, the 'value of a gift to the receiver is indicated to its donor by the value of the reciprocal response'. Furthermore Bell (1991:161) goes on to suggest that in gift exchanges, there is an implicit bargaining in order to avoid offence and continue the relationship with the gift giver. Appadurai (2003:13) however, prefers to avoid *a priori* distinctions between commodities and gifts, instead preferring to refer to 'commodity situation'. A commodity situation is a specific context of use, whereby the exchangeability of a thing (i.e. sexual services), for some other thing, becomes its relevant feature (Appadurai 2003:13).

In prior studies of commercial sex it has been found that clients make a distinction between gift and commodity exchange, in order to form a moral argument for their engagement in commercial sex (Prasad 1999). In Prasad's (1999:204) research with sex worker clientele, the commodity exchange of commercial sex was valued for offering freedom from the social obligations of gifting underpinning romantic love.

Fundamental to this chapter then is the tension between commercial sex as commodity and gift exchange; and like a rhizome, this tension sprouts up through my discussion at different points.

Having outlined the theoretical refrain for this chapter, my discussion begins with an exploration of the forms of commercial sex observed on Craigslist. However in order to understand the forms of sexual commerce that occupy Craigslist today, it is important to understand how the spaces of commercial sex on the site have developed over time.

7.3 'In need of some c£sh fairly quickly': Commercial sex on Craigslist

7.3.1 An archaeology of commercial sex on Craigslist

In this section I briefly discuss how the changing space of commercial sex on Craigslist has primarily been in response to pressures placed on the site to restrict such activities. Using an online archive of Internet websites[25], I reviewed freezes of the Craigslist homepage over the last decade. Up until 2002, commercial sex was isolated within a separate section of the site dedicated to erotic services. These services included escorting, massage, and phone sex, amongst other "sexual" requests. Entering the erotic services webpage from the main menu, the user would be presented with a list of advertisements. Over time the layout of the page changed from a simple list of services to a series of categorisations based on gendered sexual pairings, as shown in Figure 20. For example the category of M4M means that a man seeks another man, whilst M4T means a man seeks a transsexual partner.

In March 2009, the Sheriff of Cook County Illinois filed a lawsuit against Craigslist. The lawsuit claimed that the website 'knowingly and intentionally facilitates prostitution through Craigslist's erotic service forum, its twenty-one categories, and the word search function' (Dart v Craigslist 2009a:19). The action taken by Cook County was dismissed by the courts (Dart v Craigslist 2009b). However despite this ruling, as of

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[25] http://archive.org/web/

May 2009, Craigslist began removing its erotic services section, changing this to an adult services category (Buckmaster 2009:para.1).

Figure 20: Screen capture of Craigslist erotic services seciton as at 28th February 2008

Unless **all** of the following points are true, please use your "back" button to exit this part of craigslist:

1. I am at least 18 years old.
2. I understand "erotic services" may include adult content.
3. I agree to flag as "prohibited" anything illegal or which otherwise violates the craigslist terms of use. This includes, but is not limited to, offers for or the solicitation of prostitution.
4. I agree to report suspected exploitation of minors to the appropriate authorities.
5. By clicking on the links below, I release craigslist from any liability that may arise from my use of this site.

erotic services >>>>> w4m m4m m4w w4w t4m m4t
mw4mw mw4w mw4m w4mw m4mw w4ww m4mm mm4m ww4w ww4m mm4w m4ww w4mm t4mw mw4t

The re-categorisation of erotic into adult services was not just a change in semantics. Craigslist instigated a new machinic arrangement within the website design. The compromise of the adult space was that all new adverts would be monitored on submission, and that it would cost $10 to place each advertisement (Buckmaster 2009:para.2). The move by Craigslist to charge for adult services advertisements striated the space, thereby altering the sexual becomings of MSM. In paying to use the site, sexuality assemblages were territorialised into ones that were unambiguously related to commercial sex. Users were required to buy into a sex worker identity and the class processes behind this. In addition to changing the flows of desire of workers using the site, Craigslist was now extracting surplus value from the sexual labour of others. In doing so the site owners ironically became complicit, more so than they had been, in the *provision* of adult services – something that it was charged with doing and was attempting to distance itself from.

Craigslist continued to be a site of controversy through its implication as a place for sex work, and in its links to a series of murders involving sex workers. Combined with several other lawsuits, this pre-empted the eventual closure of the adult services section in 2010 (Bangeman 2010). One of the consequences of the removal of the adult section was the movement of sex work into other sections of Craigslist, ones that were less monitored than the former adult services section (Temple 2010).

Partly, sex work advertisements moved to the therapeutic services section of the site, where again a charge was levied for their placement. However the free and relatively un-moderated areas of Craigslist, such as the casual encounters section, provided an alternative space for sex worker and client desire to spring up. It is within this space that the remainder of my analysis of Craigslist commercial sex takes place.

7.3.2 Identifying commercial sex on Craigslist today

The previous section mapped out the changes in desire flows through Craigslist over time, with commercial sex on Craigslist today occupying a precarious position due to the gradual striation of the site and removal of "legitimate" spaces for commercial sex. However MSM have adopted strategies that redirect desire from sex-seeking into commercial sex assemblages, through subverting the form (see Section 5.5). Sex workers were found to include visual images with advertisements, some of which contained links to blogs or other contact details. Figure 21 and Figure 22 are examples of such commercial sex advertisements, where images were used to provide the telephone number and blog address for the worker, respectively.

Figure 21: Image taken from sex work post showing topless male with contact telephone number included in image; Original image adjusted
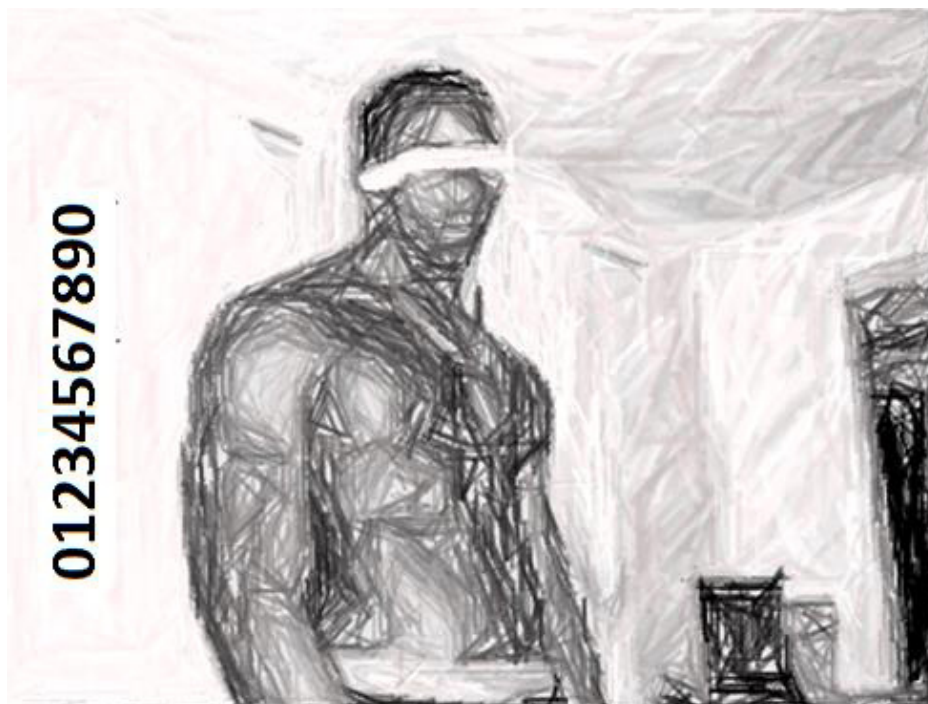
Figure 22: Image taken from sex work post showing hands massaging a back with contact website details included in image; Image recreated

In addition to the deployment of images, MSM sex workers were found to manipulate the process of reading advertisements in order to direct desire into commercial sex assemblages. The following examples illustrate the manipulation of the visual field and how advertisements are read, in this case through modification of the textual elements of advertisements:

> *Gateshead gay lad looking for under 25 for fun* - Gateshead gay looking for lads under 25 for nsa. Got me own place only 2 min walk from the metro station. Love giving bj to bi lads and willing to ££££. No timewasters please (Craigslist M4M, advertisement, 2013)

> *Looking for r£warding time tonight* - Young guy here looking for some r£warding fun tonight/tomorrow. Genuine people only please. No timewasters/email ping-pong. If you're interested in helping me out then gimme a shout! (Craigslist M4M, advertisement, 2013)

> *Older daddy £ooking young guys under 30 only can accommodate Mid Antrim* - Hi genuine older guy here in mid Antrim £ooking 4 a younger playmate reward given this is genuine offer (Craigslist M4M, advertisement, 2013)

> *Young guy needs some extra £££* - Young guy here looking to make some £££. I'm a top and I can accommodate. So if

you're   interested   message   me   (Craigslist   M4M,
advertisement, 2013)

In these advertisement, lettering within words and also entire words are replaced with pound signs (Highlighted in text). Within the *Commercial Sex* corpus, roughly 27 per cent of advertisements used this nomenclature to alert the reader that their advertisements were related to monetary transactions. Though these examples represent a "making explicit" of commercial sex, through the veiled reference of exchange of sexuality for money, as I will now discuss, commercial sex assembled into diverse forms with Craigslist – they imply different virtual future encounters to come.

7.3.3 Types of commercial sex assemblage on Craigslist

Within the main *Day in the Life* corpus there were 101 advertisements (10 per cent) that were identified as broadly being forms of commercial sex[26]. The *Commercial Sex* corpus was reviewed for commonalities in terms of the assemblages and flows of desire that advertisements generated. Though some bore similarities to sex work present within academic and public discourses, most challenged such *a priori* categorisations. Table 9 gives a breakdown of the commercial sex corpus in terms of these commercial sex assemblages. Five types of assemblage were identified, though a sixth was added for unclassifiable advertisements that were singular in terms of the systems of sexual labour/exchange they embodied. The following discussion explores these commercial sex assemblages in detail.

Table 9: Breakdown of classifications of commercial sex assemblages within commercial sex corpus (n=101)

Sex work type	Frequency	Per cent
Commercial services	4	4
Unclassified	6	6
Commodity sold/requested	7	7
Formal sex work	13	13
Seeking services	30	30
Informal sex work	41	41
Total (per cent of Day in Life corpus)	101	10

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[26] The creation of the *Commercial Sex* corpus is outlined in Chapter four, Section 4.2.2.

'Want my used condoms????': Commercial services and the sale of commodities

Commercial services advertisements were so named as they sought men to engage in commercial services that resulted in indirect sexual stimulation (Weitzer 2010:1). These services included being performers in pornography (*'Guys wanted for photo/video fun'*)[27], adult models (*'Photographer looking for adult models'*), and attending private parties, presumably as the male entertainment (*'Looking 4 Young exhibitionist lads'*). This group of advertisements was the smallest category within the commercial sex corpus, at 4 per cent. Flows of desire were directly related to capitalist enterprises, for example the producers of pornographic films or the corporate entity holding parties.

The second smallest group, at 7 per cent of the corpus, were advertisements where material commodities were being sold or requested. Advertisements included the sale of sexual aids (*'F-Machine'*), worn underwear (*'want my spunky boxers???'*), and used condoms (*'buy my spunky condoms'*). Commodity adverts replicate gay interest items on eBay, where eBay sellers can advertise used underwear and tag them as 'gay int.' – meaning gay interest – in order to alert others of their content (White 2010). However because of the lower content monitoring on Craigslist compared to eBay, this may allow for the direct sale of "contaminated" materials not permissible on eBay[28] i.e. those which contain bodily fluids. The machinic assemblage of Craigslist (i.e. the network-assemblage of concept-word-things, site design etc.), may mean that commodity advertisements can also tap into virtual futures through elaborate sexual descriptions – as indicated in the previous chapter, Section 6.4.2. The following final example of a commodity advertisement, where someone sold their used condoms, illustrates how the advertisement assemblage draws into itself virtual futures through fantasy and scene setting:

> ***want my spunky condoms??*** – I'm a fit white clean lad, std free! straight/bi and love shooting my cum, wanking my dick silly lol. any lads out there fancy buying one of my used condoms? turns me on knowing sum bloke out there's going to be wanking with my sperm or even drinking it *please note though that I am not looking to have sex with you, just selling

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[27] Titles of advertisements are provided in brackets as an indication of their content.
[28] The 'Used Clothing Policy' of eBay specifically prohibits the sale of used underwear (eBay 2016).

my spunk for now. I'm 100% genuine, just a skint student who loves wanking so message me (Craigslist M4M, advertisement, 2013)

'BB Escort 4clean masculine blokes': Formal sex work

The third largest group of classifiable adverts were those I refer to as "formal sex work", and which accounted for 13 per cent of the commercial sex corpus. Formal sex work advertisements were distinguished from other advertisements where sexual services were provided, through explicit reference to pre-existing and in some ways legitimated sex worker identities or practices. Examples of such sex worker identities/practices were those of erotic massages, escorting, and peep shows. It is for this close relationship to offline sex work antecedents, and the up-front and highly formalised nature of the sexual exchanges these advertisements reflected, that I termed this group "formal sex work". The following examples illustrate the use of sex work identities (Highlighted) and social-sexual arrangements within formal sex work posts:

> *V HUNG BLACK MALE COMPANION 2NITE* - You are curious and want to find out a bit more. A bit about, well in a tall 6ft5 athletic built hard body black male escort. Good looks, interesting sense of humour comfortable to be around. I am also top. Endowed with a XL package. Warm companion, satisfaction guaranteed. Feel free to contact me to find out more Luke x (Craigslist M4M, advertisement, 2013)

> *Massage Appointments at Newcastle Gay Massage* - WORKING ALL DAY WEDNESDAY £30 half hour, 40 for 45 minutes and £50 for an hour Gay massage appointments with a guaranteed happy ending Give me a call oh12three45 six7eightnine0 or landline oh12three45 six7eightnin0 (Craigslist M4M → Telephone, advertisement, 2013)

> *Mass_eur* – [Image including link to personal website] Experienced & professional touch… Deep tissue to sensual available. See site in pic for info. Based Sloan Square (Craigslist M4M → Personal website, advertisement, 2013)

> *Twink rent boy* - IMPORTANT send a picture or I won't reply. I accommodate. Music will be playing, come in! Let me know what you want, how long, and how much you are going to offer (Craigslist M4M, advertisement, 2013)

In these examples, desire is territorialised around the identities of the escort ('companion'), the masseur, and the subservient rent boy, respectively. Furthermore, as can be seen in the case of *'Massage Appointments at Newcastle'*, services within the formal sex work group, as with many other forms of offline sex work, used time as their system of valuing their services (see Brewis and Linstead 1998). Instantiating sex worker identities in this way had the effect of demarcating the roles to be played by both parties in the exchange, through the production of a series of incorporeal transformations and territorialisations. Specifically, territorialising around an identity affects a worker-client dynamic, with the worker performing a service in exchange for money. Pre-valuing the exchange in terms of time has the effect of formalising the transactional space further. It legitimises the exchange of money for services, just as a wage-labourer does their efforts. Closely related to formal sex work were those advertisements that displayed a less formalised approach to sexual exchange, whilst still being recognisable as forms of commercial sex through the exchange of money.

'Looking for some r£warding fun': Informal sex work

Advertisements categorised as "informal sex work" accounted for roughly 41 per cent of the commercial sex corpus. Desiring-production within these advertisements did not draw on the aesthetics of offline forms of sex work, instead extoling an amateur status rather than professionalism. This group therefore moves from direct to indirect sex work (Harcourt and Donovan 2005), as highlighted in the following example:

> ***oral for £*** - I am looking to earn some money on the side so I am offering to suck you off nice and slow and wet or however you want it. There are two rules, first you must come to me not the other way round, though I'd do it in a public place, say a bench or in your car/van. The second is you must not try to fuck me although you can strip me, suck me if you want. I am not putting a price on it, make me an offer, I will suck you regardless of your size/race etc. email me and I'll send a pic (Craigslist M4M, advertisement, 2013)

The advertiser in *'Oral for £'* offers to provide oral sex in exchange for money, '£'. In explicitly stating that they are trying to earn 'money on the side', this example fits into the definition of indirect sex work, being a secondary income stream (Harcourt

and Donovan 2005). The use of amateurism may however be part of the fantasy being sold in this advertisement – amateurism has become a new pornographic aesthetic (Paasonen 2010; van Doorn 2010). The lack of explicit value attached to the service being provided, and the fact that the advertiser opens up a dialogue over the price and therefore value of their services, highlights the informality of the sexual exchange being proposed. There were other aspects of informal sex work advertisements that suggested that the exchange of money for sex was not the primary desiring force driving these commercial sex assemblages. The men in the following advertisements provide various different services, however money-desire and sexual affect are intermixed within each:

> *Chubby Boy in Debt!* - Young student looking to make some money by doing something he loves and is also good at :P I'm willing to do anything I don't care how stupid or kinky it is for a small fee of 50 pound email me with what you want! No age limit can travel but NOT accommodate!! Also selling cum stained briefs boxers and socks for £10 (Craigslist M4M, advertisement, 2013)

> *Late night de-stressor* - Looking for a little late night de-stressing, willing to do anything for a reward, pics go top of the line so get back to me and we can sort something out (Craigslist M4M, advertisement, 2013)

> *Mid 20's Lad Lad* - Hey Guys. You don't want to waste your time and I need some h£lp from a genuine guy. So to make sure that both our times are not wasted, you r£ward me and I reward you by letting you do what you like to me (am happy to fulfil your fantasies). I'm 26 year old horny lad who can accommodate in Chorley. I have my own place so we can take our time etc. I'm into rimming, sucking dick, kissing, wanking, spanking, w/s etc. (from mild to wild) I'll happily fuck you and if you want to be extra g£n£rous with me, I'll let you fuck my ass till you shoot your load. Genuine replies only please. You must be able to travel as I can only accommodate. (Craigslist M4M, advertisement, 2013)

In the first example, the advertiser indicates that they are doing something that they 'love' i.e. having sex. Despite stipulating an exact value to the transaction, £50 to do anything, the use of the phrase 'small fee' implies that full economic exchange is not being received. The second advertiser offers 'de-stressing', which could be taken to mean sexual interaction leading to ejaculation. However rather than being explicit

about the value of their services, they refer to exchange in terms of a reward. The third advertisement also uses the terminology of reward, in addition to help and generosity (highlighted in text). Provision of this reward opens up the body to the client to 'do what you like to me'. In the last two examples, though desire is territorialised around money, the system of exchange is rendered vague again through reference to rewards, help, and generosity. It is this vagueness that renders the exchange of services in informal sex work more like gifting, compared to the commodity exchanges in the formal sex work group. I explore this gift/commodity distinction in the following section, in relation to the (de-)territorialisation of desire and sexual subjectivities.

Commodity-gift exchange and the (de-)territorialisation of desire

Whereas flows of desire within the formal sex work category reflected the complete territorialisation of desire onto money, desire-money, advertisements for informal sex work were left open ended in terms of desiring-production. The complete territorialisation of desire onto money reflected the market ideology, denoting a highly striated space where both parties enter knowing the parameters and boundaries of the space, and leave "quits" (Callon 1999:183). The following is an example of formal sex work, illustrating these territorialisations:

> *Young webcam. Small reward* - Hi , I am new to this , But I am looking for men or women who would like to watch me on webcam doing whatever you want , I ask for half an hour 25 euros , I am young and fit . See you (Craigslist M4M, advertisement, 2013)

In the above example, the male performer asked for 25 Euros for half an hour of webcam chat. First to note of the sexuality assemblage leading off from this advertisement is that it reflects the socio-sexual arrangements of the peep show, being payment for a performance, though without explicitly making these links. Desire in this example is territorialised around time, which is then exchanged. This therefore most markedly reflects the market ideology through ritualised expression (Miller 2002:224), in this case through the commodification of sexuality as time-money. In contrast to commodity exchange via a market mechanism in formal sex

work, informal sex work reflected a system of exchange where the space of commercial sex became de-territorialised, and in doing so more gift like. In the following example from the informal sex work group, the advertiser offers their services for an unspecified value:

> ***Broke Student for rent...*** - Hi guys, so like the ad says I am pretty broke. Looking for a bit of help and in return I will do whatever you fancy. I am bi and versatile, and very fun. So if it is kinky and filthy, cuddly and vanilla or downright crazy fantasy, get in touch! I am clean D&D free and always horny. I am tall, slim and dark (part Italian). So fancy helping me out? Get in touch (Craigslist M4M, advertisement, 2013)

The use of the term help and 'fancy helping me out' renders the status of the money gift-like: the gift of help, through money. It could also be suggested that it is the inalienability of the worker's sexuality from the service being sold (e.g. 'I am bi and versatile, and very fun'), which renders this example and other informal sex work assemblages most gift-like. However rather than viewing the status of gifts and commodities in terms of essences that these exchanges embody, it could be suggested that what renders this assemblage gift-like is the de-territorialisation of desire that occurs when the 'broke student' blurs the distinction between private and public sexual subjectivities.

Research with sex workers has highlighted that for some, in order to engage in such work, this necessitates a partitioning of sexual subjectivities into those related to their work and "real" persona (Weitzer 2009:221-222). Browne and Minichiello's (1995) study of male sex workers found that via this partitioning, workers had different meanings attached to sex; sex with the partners was more meaningful than the sex acts performed with clients. Sex between partners therefore formed part of the private sphere, and was intentionally demarcated from public sex that was open to consumption by others. In the informal sex work category however, personal sex and desire flows are intermixed with sex for work. Though these findings appear to contradict one another, prior studies have almost always been conducted with workers who identify as sex workers, or engage in activities and industries recognisable as commercial sex e.g. acting in pornography. The informal sex work category relates to those individuals who work outside of formal identities and

institutions, and whose sex work is staged as transient. The separation of public and private sex may therefore be less of a necessity, or concern, in order to accommodate commercial sexual activities into their lives. Alternatively this informalisation of sex work may be strategic in order to make a distinction between their commercial sexual activities, and the stigma attached to the commoditisation of sex.

'Looking to pay for cock': Seeking sexual services

The final category of classifiable commercial sex advertisements were those where sexual services were being sought e.g. asking for oral sex to be performed on them for money. Advertisements within the "seeking" category accounted for roughly 30 per cent of the commercial sex corpus. This category was notable as a form of commercial sex exchange in that the advertiser solicited sexual services for money. Such vocal enunciations queer the assumed subtleties and ambiguities that are associated with sexual solicitation (Whowell 2010). In offline forms of sex work, both client and worker deploy specific sexual choreographies including dress, comportment, and gaze, in order to attract the attention of the other party. As the interactions occur in public spaces, both parties attempt to attract the other without seeming out of place, and therefore attracting the wrong attention (Whowell 2010:133). However the Internet and digital media afford greater anonymity and itinerant spaces, something particularly sought after by MSM who are sex-seeking (Ross et al. 2007). Clients therefore have the benefit of remaining concealed, silent until they choose to solicit the sex worker via private communication.

Despite this option for anonymity, several studies have explored the digital enunciations produced by customers of escorts and other sex workers online (e.g. Castle and Lee 2008; Holt and Blevins 2007; Pettinger 2011, 2013; Sharp and Earle 2003), as private enunciations that intervene in public space (Pettinger 2015:138). These studies have focused either in part or solely on the online client reviews of escort services, as a consumer would review a purchased item on eBay. However McLean (2013:49-51) also found that propositioning occurred in MSM's digital sexual venues, though these specific enunciations were not explored in detail. The seeking category I have identified provides insight into the active solicitation of commercial

sexual activities. The following are examples of advertisements from the seeking category that illustrate these requests for sexual services:

> ***18 male straight wants cock and willing to £££*** - hi, I'm 18 male from Consett looking for a cock to suck/be fucked by. I'm straight but game to anything. Please only reply if you are clean, under 25 and ale to travel. Can host most nights next week. If you are good looking etc. I am willing to pay £££ for any services :P (Craigslist M4M, advertisement, 2013)

> ***older daddy £ooking young guys under 30 only can accommodate Mid Antrim*** - hi genuine older guy here in mid Antrim £ookin 4 a younger playmate reward given this is genuine offer (Craigslist M4M, advertisement, 2013)

In the first seeking advertisement above, the advertiser was willing to pay other men in order to give them oral sex, and or for him to be the receptive partner during anal sex. However this advertisement represents an aberration amongst the seeking posts, being posted by someone claiming to be 18 years old, when the mean age for men placing seeking advertisements was 38 years old. The stated age of men in this group was significantly older when compared to formal and informal sex work, at 35 and 22 years old respectively (Table 10). The second advertisement was therefore in keeping with the dynamics of this group: placed by an 'older guy' offering their services and reward to a younger partner. Previous research using personal advertisements supports this preference for younger partners by older gay men (Hayes 1995). It is the older-man-seeks-boy dynamic that illustrates the potential sexual affect flows in this type of sex work assemblage, from more solvent older men, or men excluded from "gay spaces" because of their age (Hajek and Giles 2002).

Table 10: Comparison of mean ages for formal/Informal sex work and seeking category (n=74)

Sex work type	Mean age	Number stating an age	Per cent within group
Formal sex work	35	12	100
Seeking services	38	22	73
Informal sex work	22	40	98

The production of vocal solicitations may be linked to the mediated nature of commercial sex assemblages, and the affordances of particular technologies. Digital commercial sex was primarily observed in spaces that were designed for the public occurrence of sexual enunciations, or in spaces that actively fostered commercial sex

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assemblages, such as profile sites – see Light et al. (2008) and Smith and Grov (2011) for a discussion of corporations fostering commercial sex. For example Squirt.org, a casual sex-seeking profile website, permitted escorts to create profiles to promote their services – though the website has since removed escort profiles due to changes in local laws to prohibit the advertising of sexual services. Though Craigslist has become less amenable to the desire flows of commercial sex workers, and therefore some ambiguity needed to be retained when engaging in these practices, there are few active methods of policing solicitation that can detect the nuances between sex-seeking and sex work. Craigslist therefore provides an appropriately anonymous forum that is still open to sexual enunciations, allowing for the combination of sexual affects and desire-money in the expression of consumerist desires e.g. 'I am willing to pay £££ for any services :P'.

'I just want to be nude': Unclassified posts

An unclassifiable group encapsulated all other advertisements where the definition of commercial sex based on exchange of money was singularised completely. Within these advertisements, services were provided that had the potential to generate bodily intensities for one or both parties, however in place of money was sexual affect. Where the exchange of money was mentioned, it was not the sex act that was valued but incidental costs, for example those borne from travelling to the sexual encounter ('*any college or uni lads here?*'; '*Playful wrestle fun?*'). The following advertisements are examples where services were provided, being a chauffeur, a handyman, and a cleaner respectively, but where the value of the exchange and what was being exchanged were muddied:

> ***Looking For Young Lads Who Spit To Spit On Me And Use Me To Drive Them -*** Looking for a dominant young guy under 26 who need to spit a lot. I could be just your free cab service (when available) and be humiliated and spat in the face with or without sucking and rimming you and other humiliation. So if you're straight that's just as cool. Get back on here or add me to your messenger an_email-at-email-dot-com if interested. If you got a pic that would be cool. (Craigslist M4M → MSN Messenger, advertisement, 2013)

> ***Odd Jobs, Hand Jobs, Blow Jobs -*** Horny handyman, very
> good with my hands for all those little jobs you need done in
> and around the house. Very discreet service. No pic hunters
> please, genuine replies only (Craigslist M4M, advertisement,
> 2013)

> ***do you need a cleaner?*** - Do you live on your own? Do you
> never seem to have the time or the inclination to clean your
> home? Want help with cleaning and washing clothes etc? I'm
> a submissive, clean, respectful guy who can help you with
> these chores. If interested, please reply with a little
> information about yourself. Thanks (Craigslist M4M,
> advertisement, 2013)

In the first advertisement, the man posting to Craigslist offered his services as a driver, in exchange for his degradation and humiliation. Here the sex worker, if he could still be called that, provided the service to the other man, whilst the payment was presumably to be the bodily intensities that his submission generated. In the second example, the poster of the advertisement blurred their sexuality and professional attributes to become a 'horny handyman'. As with the first post the man provided both a sexual and personal service, rather than the sexual act being in payment for his service. The lack of any clear definition in the second unclassified example made it difficult to discern what was being exchanged. The final example highlights the commercial sex assemblage of a nude cleaning service. However as with the chauffer, the bodily intensities produced from cleaning naked appear to provide the exchange with value. All three examples lack conformity to common understandings of sex work and systems of commodity exchange, instead reflecting a system of gifting where the giver is not alienated from that which is exchanged i.e. sexual services.

7.3.4 Summary: Commercial sex on Craigslist

The categorisations of commercial sex outlined in the previous sections are by no means exhaustive or homogeneous, and within each there were exceptions and variations. For example younger than average advertisers in the seeking group, or the formal sex worker performing on camera who did not draw on offline sex worker identities, but still territorialised time onto money in a formalised exchanged.

However shared by the majority of the commercial sex advertisements was their role as elements within assemblages whose function was to bring together bodies in the formation of intensities (Fox and Alldred 2013). In functioning as intermediaries (Latour 2005:39) in bringing together workers and clients, advertisements on Craigslist replicate other mediated means of commercial sex practices, such as print advertisements.

Though media may replace print advertisements and other means of bringing sex worker and client bodies together, in doing so this new machinic configuration has the potential to generate novel enunciative assemblages that may have found difficulties in forming otherwise. In the case of advertisements where commodities were requested or being sold, though this practice is not impossible in other contexts, desire flows originating from or leading to the sale of sexual detritus find a place within holey digital spaces. In these itinerant spaces, monitoring by authority is lessened, and anonymity and accessibility enable easier engagement in informal commercial sex, such that 'You can do it from your sofa' (McLean 2015:894). The assemblage of bodies and technologies, and their emergent properties (i.e. anonymity), allow desire flows to continue unimpeded, for the most part. In the next section I continue to explore these novel desire flows and enunciations, this time in the form of paid cybersex performances.

7.4 'Watch me on webcam doing whatever you want': Cyber sexual performances on Cam4

7.4.1 Introduction to cybersex and paid performances

In his review of sex work, Weitzer (2009:214) states that although there is a dearth of research into the sale of sexuality, this has tended to focus disproportionately on certain forms of work (e.g. strip clubs and street prostitution), at the deficit of others (e.g. the pornography industry and indoor prostitution). A very narrow definition of sex work has formed which tends to be conflated with prostitution. However sex work can cover a much wider array of sexual commerce, as shown in my earlier analysis of Craigslist. Jones (2015a:567) has called for research that explores the 'diversity and complexity of sex work online', outside its use as a method of

solicitation for offline encounters. This section therefore explores male cybersex performances on Cam4, a site where individuals perform live to an audience via web-camera. Cybersex performances are the 'archetype of Internet sex work' (Reece 2015:269) because they could not exist without the Internet (Reece 2015:270).

Elsewhere such body-camera-media configurations have been referred to as webcam modelling (Jones 2015a, 2015b; Reece 2015). However the use of the term modelling already sets such activities up as commercial sex assemblages. In contrast Bleakley (2014:901) has argued that webcams should be seen 'as an evolution of the   adult entertainment industry that defies existing categorisation, and must be evaluated accordingly on its own unique qualities'. This conclusion arose from observations of the active relationship between performer and viewer within paid cybersex venues, which shared similarities to both pornography *and* prostitution (Bleakley 2014:901). Furthering this problematic distinction of paid cybersex, my observations suggested that cybersex as commercial sex, within Cam4 at least, was something that men actively *became*, rather than being something that could be assumed about such activities from their presence in these spaces – in the following section (7.4.2) I examine this becoming commercial in relation to the assemblage of body-camera-media on Cam4.

Though research into paid cybersex is a newly emerging field (e.g. Bleakley 2014; Henze 2013; Jones 2015a, 2015b; Reece 2015), there is an established literature on engagement in cybersex, as indicated in Chapter two. Though cybersex and commercial sex performances represent potentially different assemblages, the underlying technological processes involving the exchange of live video are similar. It could therefore be suggested that paid cybersex extends the freedom to produce different sexual assemblages that Waskul (2006) highlights in cybersex. This freedom to re-assemble sexuality enables performers to engage in entrepreneurial self-exploitation and profit maximisation (Bleakley 2014; Reece 2015). However Jones (2015a) finds fault with overly liberatory explanations for paid cybersex, suggesting instead that these practices are still sites of dangers, such as harassment and exploitation. Therefore in addition to describing the self-exploitative uses of cybersex as part of commercial sex, the following discussion looks at the exploitative relations

that performers were subject to when they formed their sexuality assemblages within and through these venues. The proceeding sections primarily draw on examples from Cam4, however other venues are used in order to test and expand my claims to other paid cybersex venues.

7.4.2 Assembling commercial sex on Cam4

On Cam4 individuals perform for others via webcam. However unlike other webcam interactions, where all parties are meant to be visible to one another (e.g. Skype), Cam4 performances are broadcast one-to-many. The same live performance can be viewed simultaneously by multiple viewer-users via computer/mobile devices, with only the web cam performer being visible during the encounter. Cam4 was public in the sense that it was accessible from search engines and can be viewed without subscription. A further difference between paid cybersex venues and other webcam-based cybersex is that they have their own forms of currency. On Cam4, tokens can be exchanged between men and are redeemable for money – discussed in detail in Section 7.4.6. Though the style of the performance within cam sites was one-to-many, the broadcast could become one-to-one and therefore private. These private performances could be requested for a set number of tokens specified by the performer. An alteration to the Cam4 website (circa 2015) allowed for private group viewings, where the performer stipulates the number of tokens needed to join in a group viewing.

On entering Cam4 the viewer was presented with a series of thumbnail images arranged in a grid fashion, much like Grindr, and which I will refer to as "the grid". Each of the images in the grid relates to a single performance contained in its own separate page on the site. The performer sets images that can either be chosen from a gallery on their profile, or from a screen capture of the performance, thereby giving a preview of that particular room. The website itself was split into categorisations, and though these have changed over time, they have broadly retained the following groups: Male, Female, Trans, and Couple. Each category was its own separate grid of performers. During my time in this venue, I observed that a large proportion of straight identified men performed for other male site users, with the performer

having no practical means of preventing these male viewers[29]. As a result, although my research interest was MSM's sexual practices, the following discussion is not limited to those performers whose profiles indicated that they identified as gay or bisexual[30].

Originally Cam4 was designed for those with exhibitionist intent, however over time the site was developed. These developments led to changes in sexuality assemblages and forms of sexual enunciation on Cam4. As one forum member laments, 'Before it got popular everyone used to just show their goods for the fun of it, now everyone want [sic] to use it to whore themselves about' (Forum, post, 2009). One of these developments was to allow for the exchange of tokens between men, also known as tipping (Cam4blog 2010a). As a result, Cam4 became increasingly commoditised in adopting the aesthetics of capitalism, resulting in the reduction of the multiple ways of "showing" and "gifting", to what O'Sullivan (2010a:260) called the 'principle of exchange'. However, though the space of Cam4 became heavily striated, and desire flows territorialised around money, the site could be used in exhibitionist sexuality assemblages. Men engaged in exhibitionism did not actively assemble the site for commercial sex. In the case of rival webcam site Chaturbate, the user could indicate whether they are an exhibitionist or engaging in commercial sex – with the latter being known as "Chaturbating". A brief overview of the elements of Cam4 follows, in order to later show how these are assembled into commercial sex configurations.

The layout of Cam4 is illustrated in Figure 23. On the left hand side of the screen is the live camera feed (circled in red). To the right of the camera feed was the live chat-dialogue screen: here the performer and site members watching the performance can interact via text (circled in green). Textual interactions, along with the wider assemblage of the performance window, provide the contextual information for the performance (Jones 2008:470). Although non-members can watch a performance, only users registered with Cam4 can interact via chat.

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[29] Though viewers can be banned from a camera session, and therefore prevented from watching, to do so for all male viewers would be a time consuming process.
[30] Over half of the performers where formal observations were made identified as either bisexual or straight (57 per cent).

Observations suggested that use of the live chat-dialogue was predominantly for the relay of instructions/requests, rather than the performer elaborating upon *their* bodily intensities, as the following examples illustrate: 'ok guys we are going [private] in 2 mins', 'who gunna take me [private] £10 15 mins', 'do you want doggy???'. As with Jones' (2008:470) study of the role of text in video cybersex, text exchanges via the dialogue box also served a regulatory function – see later example of a "fraudulent" performance. However, as will be noted in later examples of conversations via the dialogue screen, the dialogue was far from linear, containing many extraneous and tangential threads. As the example in Section 8.3.2 illustrates, the chat dialogue could be used by MSM in the audience to elaborate and vocalise their intensities in relation to the unfolding visual action. Furthermore, there were examples of other men attempting to capitalise on one another's performances and divert flows of viewer-users into different camera assemblages, as the following dialogue illustrates: 'btm 45 gym guy for top daddys to skype: SLAVELAD. Only daddys plz 4 pig play' (Cam site → Skype, chat dialogue, 2013).

Figure 23: Screen capture showing layout and arrangement of Cam4 performer window
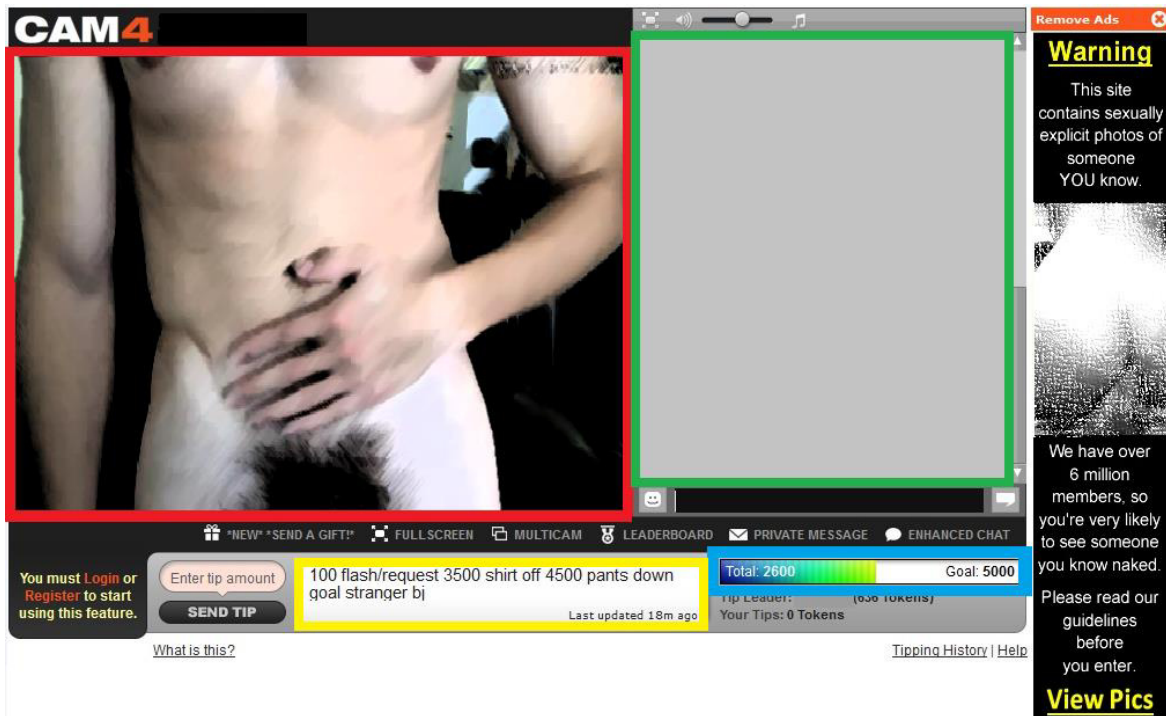
Below the live feed and chat dialogue was located a section where the performer could write text about that particular performance (circled in yellow) e.g. 'tip if you like'. Also at the bottom of the window was a token counter so that the audience

could see how many tokens the performance has accrued (circled in blue). Both the counter and comment box could be used to territorialise the assemblage of the performance around tokens, and therefore money. Alternatively links were often provided to Amazon wish lists, which could be used as an alternative method of payment.

In configuring the space for commercial sex, performers were found to indicate in the comment box a set number of tokens to be received in exchange for their engagement in specific sex acts. Common strategies employed to configure the space involved the disaggregation of a sexual session into various activities, each with a value placed on them e.g. '50 tok flash cock', '125 fuck bare'. In these examples from the comment boxes of two different performances, 50 tokens ('tok') would have led to the performer showing their penis to the camera (flashing or 'flash'), whilst 125 tokens would have meant that the performer engaged in unprotected anal intercourse ('fuck bare'). Acts formed sexual scripts for the performance, which advanced in complexity with increasing token values. The ending of scripts usually involved orgasm or penetration, with a particular emphasis on semen and semen placement. By defining a plot through the use of the comment box, this had the effect of bringing the performance into the realm of movement-images (Deleuze 1997a), whose elements could then be played with in order to extract value. For example (re)framing and close-ups could be used to create frustrations in the audience and generate affects – see Section 7.4.5 for a more detailed analysis.

The following example taken from a comment box illustrates progression through a sexual script: '50 show I lick ass 75 show 2 ass 100 suck young big dick 125 fuck bare 400 fist [private performance] ok'. Here the script progressed from showing or flashing body parts for 50 tokens, to analingus (rimming), showing their buttocks, oral sex, unprotected anal intercourse, culminating in fisting at 400 tokens. In addition to laying out the script for the performance, the token counter was often simultaneously displayed when configuring the space into a commercial sex assemblage.

On occasions where the counter was used, it was set to indicate a target amount marking the end of the performance. Acting as a count-down, the token counter

therefore added a temporal element to the movement-image generated by the performance, thereby deploying the action-image to generate affects – a sense of impending. In exhibitionist assemblages the counter was often hidden, even if the comment box indicated 'tip if you like'. The lack of a script and temporal definition to exhibitionist performances meant that they fell into the realm of the time-image (Deleuze 1997b). Though time-images have greater *potential* for affect generation, their open-endedness, and therefore lack of control, may mean that such pure affect made it difficult to extract surplus value from them in this context. This stands in contrast to the process of capitalism writ large that generates affects, only to control and recapture them (Roffe 2010a:41).

Though there were various configurations of Cam4's elements into different assemblages, for clarity, in the following section I focus on assemblages that reflect the professionalisation of Cam4 as a venue of commercial cybersex. I use the term professionalisation as indicative of the increasing sublimation of cybersex performances under the principles of capitalist exchange.

7.4.3 Professionalisation of cybersex performances

In his study exploring the digital sexual practices of creating and displaying user-generated pornographic videos, Mowlabocus (2010c) draws attention to the amateur status of these videos as being their main commodifiable attribute. Rather than being pornography in the highly polished sense, videos were 'caught up in a constellation of other activities – and identities – within the XTube profile' (Mowlabocus 2010c:77). These other identities were those of the performer off of the screen, for example glimpses into the rooms where videos were filmed. However in contrast to this amateur content, some cybersex performances attempted to professionalise themselves through the application of structure. The professionalisation of Cam4 was epitomised by a group of performers that I came to call "career performers". These performers were synonymous with the self-identifying sex workers observed on Craigslist, in that they engaged in the formation of commercial sex assemblages through the curation of a professional identity – through various territorialisations.

Amateur has become a new pornographic genre, referring to user-generated content as well as a type of aesthetic that is being adopted by larger companies, and which reflects an unpolished "home-made" chic (Paasonen 2010; van Doorn 2010). Many of the male performers on Cam4 and other such venues tapped into the "boy-next-door" aesthetics of amateurism – whether by design or by virtue of being amateurs themselves. For example couples who performed together would emphasise their relationship status, thereby giving the impression that the viewers were watching authentic sex, rather than a contrived performance. However when attempting to engage in cybersex, the connotations of free labour and gifting inherent in amateurism (Paasonen 2010:1307) may be incongruous with self-exploitative practices, necessitating some level of professionalisation. Pettinger (2011:232), in her study of female sex worker reviews online, referred to this professional identity formation as the deployment of a prostitute aesthetic. However Pettinger focused on the bodies of sex workers, as re-inscribed by their clients online. In the current study I was able to explore the production of professional aesthetics as materially manifest in the (digital) world, through the purposeful assemblage of profiles and performances.

Career performers were found to include links to Twitter, Facebook, and Amazon wish lists in their profiles on Cam4 (see Chapter five, Section 5.2.2 for a case study). Twitter and other social media were used in order to maintain contact with followers, and alert them of upcoming performances. Just as Grindr adapted to unofficial use of the service to provide Twitter links, Cam4 created the Twitter connect feature that could be used to link Cam4 and Twitter accounts (Cam4blog 2013a). The purpose of the Twitter connect feature was to 'promote yourself and connect with both new & old fans' (Cam4blog 2013a:no page number). Through the use of these various social media links, performers were able to construct a brand identity in order to conduct commercial sex as work, which was reinforced by the rhetoric of the website espoused through its own promotional media. In the opposite action of the amateur videos explored by Mowlabocus (2010c:78), where the profile was used to link the subject and the performance, branded performer identities had the effect of linking the performance to an economic structure – albeit under the perceived control of

the performer. What performances on Cam4 and other cybersex venues illustrate then is the slow colonisation of user-generated content by a market ideology (Callon 1999), with marketing and self-branding practices being ways through which the aesthetics of the market can be performed (Callon 1998:27).

Rather than being the enforcement of a particular market ideology upon passive individuals, the literature on brand identity highlights that consumers are co-constitutive of a brand (Lury 2004), in the formation of common social world (Arvidsson 2005, 2006). During performances there were glimpses into this sociality and common worlding, as the exchange in Figure 24 illustrates. The central stream of text linked by arrows shows the exchange between audience members, interspersed with extraneous dialogue that has been shifted to the sides.

Figure 24: Chat dialogue showing intimate knowledge of the performer; Central dialogue refers to main interaction of interest with other chat dialogue shifted to sides

Blueeyed92: please tell me you're straight

Mikeedir: you see my dick delight
Sexy_tudor: will cum again?

WeepinWillow: blue... he doesn't label himself : P

Sunbeam75: hey dude are you gay?

Dreamsw: www.pornofield.com

Weepinwillow: just on c4

The above quotes in Figure 24 were taken from a chat dialogue during a Cam4 session where a solo male performer masturbated to camera. In this exchange, the audience members illustrate a level of conviviality, to the performer and each other. One individual asks about the sexuality of the male performer, to which another member of the audience answers on his behalf. In doing so, the audience illustrate some level of intimate knowledge of the performer's sexual orientation, potentially garnered from various sources made available by the performer i.e. his Twitter account. Later in this performance, the audience members exchange details of pornographic videos which include the male performer on camera: 'http://www.xtube.com/XXXX' (Cam site → XTube, chat dialogue, 2013), and the response, 'wow I watched the vid ;)' (Cam

site, chat dialogue, 2013). This again illustrates the construction of the male performer's brand through the (im)material labour of user-viewers as they consume and circulate information (Arvidsson 2005:239-240) – in this case, information regarding the performer and links to his previous work in pornography.

In a different cybersex performance where two men in their early 20s were engaged in various sexual activities, the interaction shown in Figure 25 occurred, again via chat dialogue. In the exchange in Figure 25, sociality and the market mechanism are found to reinforce one another.

Figure 25: Chat dialogue showing defence of the performer; Central dialogue refers to main interaction of interest with other chat dialogue shifted to sides
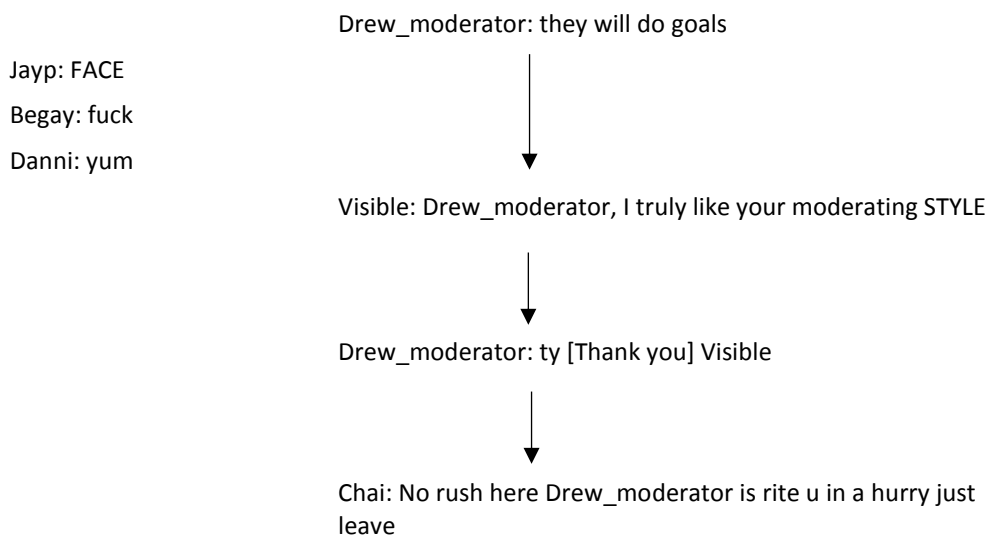
For each camera session the performer can choose a moderator in order to maintain the social/sexual order of the session. In the exchange in Figure 25, the moderator for this session (Drew_moderator) reassures the audience that the performers will not attempt to take tokens without completing their goals. One audience member complements the moderator, whilst another supports the moderator by implying that there is no rush, and that if a viewer finds the action too slow they should leave the webpage – and presumably watch another performance. Not reneging on exchanges may help to build a good reputation, and, as was highlighted by Davidson's (1995) ethnography of sex work, this can lead to a steady stream of clientele. In the case of Cam4 a good reputation may help build a steady stream of repeat paying viewers. Figure 25 therefore illustrates an occasion where clients defend the performer, with the basis for this support being their trustworthiness on completing

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on exchanges. A moral order forms, structured around the market mechanism, and reinforced by the clientele. Therefore in addition to providing a steady stream of regular income, clientele can provide character witness and confirm the quality of the branded performer. This "witnessing" may be important for performers who may otherwise be stigmatised, bearing the mark of disreputable sex worker identities. In the following section I discuss in greater detail the further obligations of professionalism, as they link up to the aesthetics of capitalism to produce perilous flows – being the dangers of digital sex work that Jones (2015a) warned of.

7.4.4 Perilous flows and keeping things going during performances

In Walby's (2010) thesis on male for male Internet sex work, the men in his study indicated that part of their work was in providing touching encounters. As one sex worker respondent indicated, they tried to offer a service rather than just sex for money, with this being a mark of a responsible professional (sex) worker (Walby 2010:139). In Prasad's (1999:200) study of commercial sex, professionalism came with a sense of obligation and an expectation by the client that the worker complete on any transactions. However the obligations that come with this kind of service work may stem from a place of coercion, rather than professionalism, or may combine with professionalism to generate certain perilous flows. If the worker obtains most of their earnings from tipping rather than a flat rate, as Cam4 performers do, then they may feel pressured to provide particular services (van der Veen 2001:46). I observed several occasions where the performers appeared under duress to perform during paid cybersex shows.

The following example was of a performance directly structured around tipping, where the performer took requests from the audience and for every 10 tokens a requested activity was enacted. One of the requests was for the performer to urinate on camera. This was met with disgust from the man on camera who verbally stated 'I'm not comfortable doing that'. However despite this expression of discomfort the performer indicated that he would consider doing this act, setting the number of tokens requested to 100 tokens. Certain conditions were however included: 'I'll take a leak in a glass. I'm not drinking it'. In this example, though the initial request was

rebuffed, the performer re-valued it, most likely intentionally high in order to discourage such an activity being asked for. However in revaluing the request for urination rather than excluding it altogether, this may be indicative of the performer's forced participation in such activities in order to appear not to exclude audience members' tastes. By not excluding sexual proclivities from their repertoire this may help to save face and therefore their social value (Goffman 1972).

Despite efforts to professionalise and maintain a customer base, sex work is dependent on demand. This erratic flow of customers can lead to boredom, as was expressed by the female sex worker Desiree in Davidson's (1995:3) study. In addition to moments of duress, there were periods of time during lulls in tipping where performers were perceptibly bored. As an example, during one Cam4 session I observed one performer, post ejaculation, busying himself in his room before sitting in front of the camera again. He then proceeded to play with a black marker pen, putting it in his mouth and biting the end. Under other circumstances this may have been construed as flirtatious however his posture, being stooped over, and facial expressions, gave this action a different affective reading. Someone in the audience commented via the chat interface, 'U LOKK [LOOK] A LITTLE BIT SIC, SAD OR SIMPLY TIRED?', whilst later on another audience member wrote 'dude u look bored'. On other occasions performers would keep sexual affect flowing, both their own and that of the audience, by engaging in "filling" activities. These activities included un-scripted sexual acts and dancing for the camera.

Performers would sometimes attempt to prompt the audience into tipping them e.g. 'Come on get this hard :p' (Cam site, chat dialogue, 2013). Notional tips were also requested in order to keep the flows of money and the performance going, for example tips of 1 token to eat grapes off of a partner. The importance of maintaining tipping may be linked to a sense of value placed on performers' time, illustrated when one performer experienced a lull in tips, exclaiming 'I'll have to go if I'm not getting tipped'. This contrasts with exhibitionist performances where lulls in action were a part of the ebb and flow of performers' own sexuality assemblages, rather than being an adverse feedback from the sexuality assemblages of the viewer-users. In addition to possible moments of duress, cybersex venues were also sites of agency.

One male performer explicitly stated on his profile, under a section entitled 'Rules of the website', that 'I only do and show what I want when I want'. These rules highlight the right to withdraw that self-exploitative cybersex workers retain, with fewer repercussions than performers in offline commercial sex venues. Such repercussions may include being labelled as unreliable by the venue owner and therefore not allowed to continue working there. However for career performers, and those who are dependent on maintaining their fan base, they may be less inclined to terminate a performance before the goal has been reached, unless a sufficient number of tokens has been received.

In the preceding sections I provided an overview of how performer, viewer, and Cam4 come together into commercial sex assemblages. However as with commercial sex on Craigslist, career performers represent one in a constellation of different assemblages. Though an increasing number of men were found to professionalise their performances on sites such as Cam4, there remained those who engaged in exhibitionism, and indirect or informal sex work. For example there were examples of men who appeared to be capitalising on their sexuality without entirely territorialising their sexuality assemblages into those of commercial sex. By observing the top ranked male performances over time on Chaturbate, at most only two exhibitionists occupied the top 10 male performances at any one time, with the highest ranked exhibitionist performance during observation being number 4. Therefore although exhibitionism assemblages still form on paid cybersex websites, those men engaged in commercial sex may push exhibitionists out of the top rankings on the grid.

It has been suggested by Callon (1998) that exchanges of information form an important aspect in market actors' decision making. Important in framing this information are elements or devices that make certain intensities calculable (Callon 1998:20). The design of the Cam4 user interface could therefore be viewed as one such device in encouraging a market ideology, particularly by producing public flows of information. For example performers are presented on the grid for comparison, arranged in descending order. Those performances with the greatest number of viewers are located at the top of the first page within each category. Performers were

observed engaging in increasingly novel sexual enunciations, presumably to increase their viewer numbers and improve their position on the grid, and it is these novel enunciations that I now explore.

7.4.5 Novelty, props, and market ideology on Cam4

In their research on interactive sex venues, Kibby and Costello (2001:361) found that cybersex performances could be as 'carefully constructed as any commercial pornographic product', through the use of lighting, framing, design etc. Similarly, I observed numerous instances where props were used during performances, either as part of the script, or in order to fill dead time. For example the following text originates from the comment box for a solo performance: 'basic requests 10 tk. Fleshlight 15 tk. Finger ass 15 tk. Anal beads 25 tk. Dildo 50tk. Complete anal play 70 tk'. Props that could be used in this performance included a flesh-light, anal beads, and a dildo. Other occasions saw performers use items to hand, including a cigar to stimulate the anus. In addition to props, costumes and clothing were used to stage and dramatise performances. For example Figure 26 was a screen capture taken from a Halloween themed show. The performer was dressed in a leather harness with horns adorning his head, and was accompanied by another man (Not show in image). The title for the performance was 'trick or treat? Demonic sex show'. With the performer dressed as a demon, accompanied by a guest dressed in a gimp suit and gasmask[31], the scene bordered on the carnivalesque. However this visual spectacle was effective in making the performance stand out when selecting from the grid of other male performers. In addition to props, MSM were also found to manipulate the modes available to them in order to extract value. Manipulating modes had the effect of altering the commercial sex assemblage and the audience's desire-flows, as I now discuss.

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[31] Gimp suit or bondage suit, covers the entire body in either leather or rubber.

Figure 26: Halloween themed Cam4 session, 'trick or treat? Demonic sex show'; Image
adjusted

Digital pornographic practices have been shown to be highly visual in nature (van
Doorn 2011). However my observations of Cam4 and other cybersex performance
websites highlighted the additional importance of the audible in making desire flow
through the sexuality assemblages of viewer-users. 'I wish they had SOUND', 'audio
would be great', 'you guys need audio'; all three of these comments were made via
the chat interface during the same performance. Though the lack of sound may have
been a technological issue, such as not having a microphone, in some performances
the lack of sound was a purposive element within the commercial sex assemblage.
Denying the audience sound interrupted desire flows and territorialised them onto
money. Additionally, the visual field could be manipulated in order to achieve the
same ends, interrupting the framing of the movement-image in order to falter desire.
Sound was either turned off, or a sexual position was chosen that was slightly out of

frame. Upon receipt of a set number of tokens, the sound would be turned on or a new more revealing sexual position chosen.

The following text, taken from a comment box accompanying a solo male performance, illustrates the manipulation of modes and audience desires: 'FINGER ASSHOLE WITH SOUND! @ GOAL'. On reading this, the exclamation mark makes the inclusion of sound seem something exceptional. The goal in this example was 200 tokens, and the performer was successful in reaching it. Once the sound was turned on the performer made full use of it, moaning and making other noises to show his pleasure. Whether these were "genuine" reactions to the finger being inserted into his anus or just part of the performance was unknown, however his sonorous reactions reverberated with the exceptionalness of the initial exclamation mark at the inclusion of 'SOUND!'. In addition to withholding modes from viewers, there were more constructive ways in which various modes were structured in order to complexify performances, and therefore increase their value.

The following observation took place during a camera session involving two blonde toned men in their early 20s, and lasted over 3 hours. The performance was structured around a game. Sexual favours were written on cards, which were then folded and placed in a bowl. After 50 tokens had been received (£1.62 as @ 2015) a card would be selected at random and enacted to camera. As each card was being selected, sound effects were used replicating that of a spinning roulette wheel. Once a card was picked from the bowl then the sound of an audience applauding was played. Sexual activities that could be selected included: kissing, fingering, spanking, rimming (oral-anal stimulation), foot play, using a dildo for anal play, oral sex, nipple play, and playing with food. Anal intercourse was the finale, to be undertaken once the goal of 1000 tokens (£32.35 as @ 2015) had been reached.

Within this performance, the game format ensured that the audience's desire was territorialised onto money. For the performance to progress, money had to be exchanged. Furthermore, the various modes available to the performers were deployed in order to sustain interest and structure the performance into a more professional one. In Prasad's (1999:199) study of sex worker clientele, similar levels of attention to detail were a sought after quality. In order to analyse the effects of

structuring this performance, in relation to demand, the performance was analysed for on screen action, viewer numbers, and tokens received, simultaneously.

The graph in Figure 27 shows the number of tokens and the number of site members viewing the "game" performance over the period of observation, from 20:59 to 00:12. The number of viewers fluctuates over time, peaking at just over 1,400 during the period when the couple were engaged in anal intercourse. A dip in viewers occurred at around 23:00, during a transition period where the couple engaged in spanking and rimming, as well as other non-genital oriented activities such as kissing and holding one another. The cumulative number of tokens increased gradually, reaching the goal of 1000 tokens after roughly 2 hours 30 minutes of observation. This figure graphically illustrates the competitive nature of Cam4, and camera performance websites more generally. If the audience lose interest in the on-screen action, the nature of the grid facilitates the quick selection of a different performance from the panoply of sexual practices on display. This flow of audience members was potentially the case when over 400 viewers left the room in a ten minute period, whilst the couple engaged in consecutive rimming sessions. Once the couple began engaging in different activities, particularly insertive anal play, the number of viewers rapidly increased, leading to the peak in numbers at roughly 23:30 (Figure 27). The peak in affect produced by action-images of high intensity sexual activities may have fed back through the design of the site, for example the thumbnail images depicting on screen sex, and into the grid.

The market ideology that suffuses cybersex websites appears, at first glance, to give viewer-users greater choice and sexual freedom (Curtis 2004; D'Emilio 1993; Prasad 1999). The grid creates an arena of calculability (Callon 1998:20), which in turn fosters the consumption practices of searching and browsing. Buchanan (2007:para.28) has linked searching and browsing to capitalist processes that generate a sense of restlessness. Figure 27 may illustrate this restlessness, with men moving in and out of the performance. Furthermore, observations of other cybersex performances saw viewer numbers increase the closer to the goal the performance was, and therefore the closer to ejaculation. This may be because in these situations,

the viewer-user is almost guaranteed an "action shot" (i.e. ejaculation), without having to expend any of their own resources through tipping.

Figure 27: Graph showing number of tokens and viewers over time for "game" show Cam4 performance
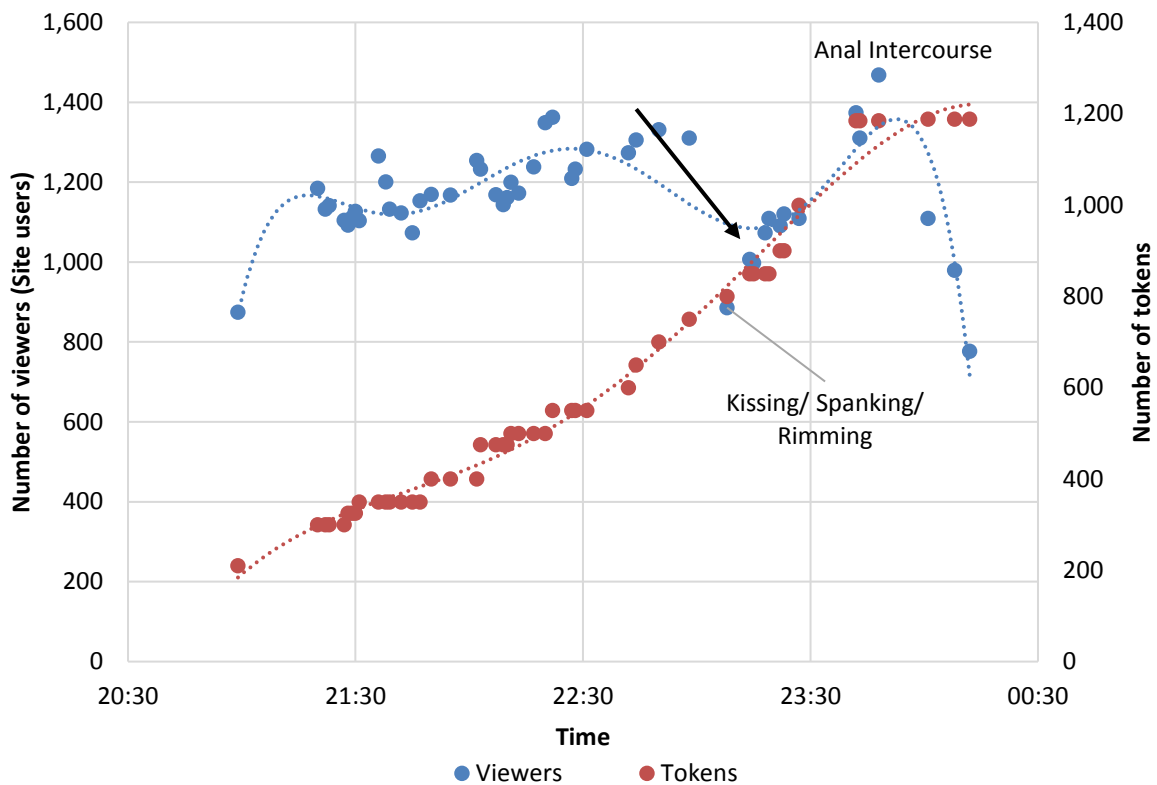
Popular performances were those where some form of action was unfolding (i.e. where the performer was masturbating or during penetrative acts), or where the performer's physique fell neatly within pornographic aesthetics (i.e. the two young toned men in my earlier example). Ranking on the grid was therefore found to be a good indication of what kinds of acts were occurring and the attractiveness of the performer. As such, the design of cybersex websites allows potential viewers to easily scan for performances engaging in sexual activities nearing their goal due to their placement at the top of the grid. However the flows between different performances and the feedback loops this generates through the system, as viewer numbers change, can reinforce sexual striations when forming sexuality assemblages. For example the rise in viewer numbers during penetrative acts (Figure 27), may be illustrative of a focus on the phallus or the coital (insertive) imperative (Fox and Alldred 2013). Furthermore, those men engaged in less popular and potentially

extreme sexual activities, or those who did not fit into the body aesthetics of pornographic-chic, may be less highly ranked on the grid because of the value placed on normative tastes. In this way, performers, viewers, and software (i.e. sorting/ranking algorithms), all produce particular (regulated) forms of sexual enunciation. Those men who fall outside of normative sexual and bodily aesthetics therefore have their sexuality assemblages trapped, thereby limiting their future bodily intensities.

7.4.6 Capitalist class processes and the extraction of surplus value from Cam4 performances

West and Austrin (2005:147) argue that a fruitful sociological approach to researching sex work is to examine its mediation by others. Specifically, in their article they focus on the technical and social conditions of sex work. Within this spirit, the following section explores the mediating effects of the corporation behind cybersex venues as they extract value from both performers and viewers. In general, and as observed across numerous different sexual venues, corporations reduce the functionality for free users thereby limiting the modalities available. For example in their study exploring Tinder usage, David and Cambre (2016:5) suggest that for free users, the algorithm behind Tinder decreases the number of profiles that can be viewed as personal use of the app increases. Reducing access to profiles forces viewer-users to buy the app in order to view and make more connections. Interrupting the flow of desire-energy through Tinder sexuality assemblages thereby opens up avenues for the extraction of surplus.

As with Tinder, I found that on Cam4 and other cybersex venues, non-subscribers were unable to interact with performers via the chat dialogue function, limiting their sexuality assemblages to ones of voyeurism. Signing up to venues unlocks features, thereby enabling desire to flow uninterrupted. However the strategy to constrain free users may be outweighed by the sheer volume of materials and number of possible connections through the network-assemblage of digital sexual venues. In the case of paid cybersex venues, users can return to the grid and browse other

performances, seeking out different sexuality assemblages that are accessible to them for free.

Once users have signed up to services there are other ways in which corporations can continue to extract surplus value from their sexuality assemblages. The benefits of becoming a member of Cam4, for example, have changed over time as the service and sexual practices have co-evolved. In 2010 the tipping feature was added, with the aim of creating 'new and exciting ways for people to interact as well as encourage more people to use Cam4' (Cam4blog 2010a:no page number). However as one member of a cybersex site suggested, without the ability to become private, 'viewers will keep piggybacking on other tippers' (Blog, comment on post, 2010). Prior to tipping, in order to become a private performance, the performer would go off-site, transferring the interaction to some other medium such as MSN messenger or Skype. PayPal was then used in order to facilitate the transfer of money to the performer prior to private viewings. As the exchange value for tokens on Cam4 was and continues to be low, at less than $0.1 per token, this would make direct payment for private shows preferable, with the performer being able to set the exchange value directly. However the practice of moving to other venues resulted in flows of custom off-site, and therefore out of the web of influence of Cam4[32] – and may have represented a loss of virtual potential revenue to Cam4.

In 2013 Cam4 created the private performance feature, negating the need to leave the site (Cam4blog 2013b). This feature maximised the potential for Cam4 to extract further value from performances. The tipping feature and private performance option changed the forms of sexual enunciation from exhibitionism, to commercial sex. As with other sites within the Porn 2.0 genre, for example XTube and pornography sharing websites, money/tokens became a password for entering into the space, rather than being a passive observer. The ability of tokens to enable access to spaces has become more pronounced with further changes to Cam4, for example the ability to make performances private to a group of individuals and only viewable

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[32] An example of this web of influence would be the commodification of the Gaydar brand, into radio and mobile versions of the service, thereby extending Gaydar's presence and ability to commodify sexuality (Light et al. 2008).

upon payment. However in order to give tokens to performers, the site user must first purchase them from the cybersex website operator, thereby opening up further lines of capitalist exploitation.

Tokens can only be purchased in bundles and Table 11 compares the purchase price, exchange value, and profit margin on various bundles of tokens available from Cam4 and Chaturbate. The value for each token when the performer redeems them remains the same, $0.05 and $0.10 per token for Chaturbate and Cam4 respectively. However the intrinsic value of any one set of tokens is dependent on their method of purchase. The purchase price per token varies between $0.08 and $0.16. Accordingly, the profit margin for both companies on any one set of tokens given to a performer can range from 25 per cent to 55 per cent of their original purchase price. The high profit margin for both companies illustrates that although the performers are engaging in free choice or self-exploitative labour, this is intimately interwoven with capitalist class processes. Van der Veen (2001:46) indicates that such class processes occur where the 'employer pays the employee a wage equal to only a portion of the total value the worker contributes to the enterprise, and appropriates and distributes the surplus'. In the case of Cam4 and Chaturbate, though the worker is not paid a wage as such, the redemption value of their tokens is still subject to the same syphoning off of value.

Table 11: Comparison of purchase price, redemption value and profit margin on selected token bundles

	Token bundles	Purchase price ($)	$ per token ($)	Redemption value ($)	Profit margin for company (%)
Chaturbate	100	10.99	0.11	5.00	55
	200	20.99	0.10	10.00	52
	500	44.99	0.09	25.00	44
	750	62.99	0.08	37.50	40
	1000	79.99	0.08	50.00	37
Cam4	50	7.99	0.16	5.00	37
	100	14.99	0.15	10.00	33
	250	35.99	0.14	25.00	31
	500	66.99	0.13	50.00	25

The use of tokens implies that the producer is in financial control of their representations (Mowlabocus 2010c:78). The performer retaining copyright over the

content they generate supports this illusion of control. Furthermore, as indicated in the Cam4 (2016a) Terms of Use, the performers are legally acting as third party producers of content. Though the boundary between the performer and the producer collapses, with Porn 2.0 venues facilitating the sale of content to consumers (Mowlabocus 2010c:73), the venue still comes to affect a capitalist class production process. Class production refers to the stratification of production, in this case into capitalist and independent labourer (van der Veen 2000). However whereas Mowlabocus (2010c:82) finds that the market ideology espoused on video sharing venues focuses on the continual production of sexuality and the churning out of sexual products, the rhetoric used on Cam4 is a more targeted sexual production. For example the following advice was given on the Cam4 blog in a post on how to maximise performance profits: 'It's proven that Cam4 models earn more money while doing less shows, so what's their secret? Scheduling shows!' (Cam4blog 2013b:no page number). Further assistance is provided to performers through the Cam4 Training page, offering advice to 'Get your Webcam Modelling career off to a great head-start' (Cam4 2016b:no page number). Due to the ephemeral nature of cybersex performances, rather than producing content that may not be seen by viewers, Cam4 suggests that performers use various tools to schedule shows, including the scheduling function and Twitter (Cam4blog 2013a, 2013b). This therefore illustrates how connectivity is drawn into commercial sex assemblages through physical (material) and rhetorical devices. Through these various discourses and aesthetics, paid cybersex websites are striated around independent forms of sex commodity production. However as van der Veen (2000:133) states, independence and control within this mode of production are largely illusory, still being subject to the ideology of market transactions.

Despite the capitalist striations of paid cybersex, there are aspects of performances that illustrate their democratising potential. Cybersex work, by its mediated nature, means that workers do not come into physical contact with the client, therefore avoiding physical dangers and health risks associated with intimate contact (Jones 2015a:563). Furthermore, the worker can remain anonymous, as was observed on several occasions where the camera angle was such that the head and face of the

performer were partially out of shot. The affordances of the working environment may therefore compensate for the relative lack of profitability, when factoring in the intensity of the labour involved in each performance. However despite these affordances, Jones (2015a) notes that online sex workers are still subject to dangers, not least of which are trolling and exploitation.

In addition to these dangers, in the preceding sections I have highlighted how performers are still subject to class and other exploitative labour processes. As van der Veen (2001:48) notes, these process make their mark on the product, in this case the sexual enunciations that are produced, such that 'most guys there nowdays seem to want tips to do anything' (Forum, post, 2014). My discussion in this section has therefore added to Mowlabocus' (2010c) critique of the democratisation of video sharing websites by exploring a different venue. Furthermore, my findings also support his closing remarks, that webcams may democratise access and performance, however 'their appeal to the customers – the fantasy that the performer will do what you want, and do it just for you – increasingly makes the cams resemble other, commercial forms of sex-work' (Mowlabocus 2010c:85). In the blurring of pornography and performance within cybersex shows, and the seceding of such performances to consumer tastes, this reflects 'the triumphing of consumer fantasies over the performers own subjectivity' (Mowlabocus 2010c:85).

7.5 'I came. It was Nice': Some conclusions on capitalism, digital media, and commercial sex

In her writing on female sex work, Bernstein (2007a:117) comments that missing from the bulk of academic research into such commercial activities is an appreciation of their historical specificity. This chapter addresses this by situating the commercial sex activities of MSM within and alongside capitalist processes. However this chapter situates capitalism as being a particular set of social and technological relations. As Deleuze (1992:6) notes, capitalism is linked to a particular technological system, and that technological evolution is also the mutation of capitalism. This mutation has taken capitalism from controlling the means of production, to its current instantiation as a system that buys finished products or assembles parts; moving its

focus from production to the product (Deleuze 1992:6). Focusing on technologies under current capitalist processes, such as Craigslist and cybersex sites, this chapter has highlighted alternate and in some cases new venues for commercial sexual enunciations.

In the introduction to this chapter I outlined one potential assemblage in the generation of commercial sex, reproduced below:

> The telephone – directory – escort agency – motel/hotel/clients home – pager – mobile phone – transport – the clock – money – transport – fashion – cosmetics – images – vibrators – costumes – condoms (Brewis and Linstead 2000:200)

Craigslist reflects an alternative element within this assemblage, for example replacing the escort agency or telephone directory. Similarly, the example of escorting in Section 5.2.2 showed the insertion of Twitter into this assemblage. In these cases, where the function of machinic elements of an assemblage are the same, the forms of enunciation that are produced replicate, to an extent, pre-existing forms of commercial sex – as was found in the formal sex work category on Craigslist. However emergent from new machinic arrangements are different forms of enunciation, for example forms of solicitation, informal sex work, and the sale of sexual detritus on Craigslist. These examples are illustrative of how the 'freedom to' (Waskul 2006) of digital media also leads to a freedom to sell sexual services, and how digital media are intermediaries *and* mediators of commercial sex (Latour 2005:39).

Cybersex websites, such as those of Cam4 and Chaturbate, reflect different machinic assemblages altogether, and therefore generate novel forms of sexual enunciation. However capitalist processes have so heavily imbued these different assemblages of bodies and technologies, that they have become almost indistinguishable from them. For example the grid of performers on Cam4, ranked by viewer numbers, may generate competition to reach the higher ranked positions, and in doing so reproduces a market aesthetic. Whereas these sites were once open-ended spaces for desire flows, through voyeurism and exhibitionism, and where tipping was a gift to show thanks, successive modifications to cybersex websites have led to the

colonisation of assemblages of sexual enunciation by a market ideology. Paid cybersex venues therefore exemplify the double pull in capitalism between proliferation of the new and marketisation. I observed novelty in terms of independent production and consumptive practices, equalled only by the novelty through which corporations and web designers work around desires and extract value from what are, for all intents and purposes, free labourers.

In the network-assemblage in Chapter five (Figure 6) commercial interests formed a distinct community of media, illustrating the symbiosis of capitalism with MSM's digital sexuality assemblages. In the current chapter I have explored further how capitalism and the market ideology have come to suffuse the digital sexual practices of MSM – both as a way of consuming sexual enunciations, and in producing them. By taking the case study of commercial sex, I have therefore addressed the second research question posed in this study, the ways in which capitalism and commodification dam up, redirect, or foster certain sexual assemblages of enunciation. Recalling the two-fold nature of assemblages, as having both machinic and enunciative components, an important aspect of understanding the nature of the market ideology online has been its interactions within different machinic assemblages. Adopting a minor mode of study therefore highlighted the different ways in which digital media act as intermediaries for, or mediate forms of commercial sex and sexual enunciations. Furthermore it illustrated how the modalities of venues were assembled around 'immediacy and intensity' (Coleman 2013a:16), or more precisely the generation of these qualities by intervening in flows of bodies, media, thereby generating affects. However what has not yet been directly addressed in the previous chapters is the nature of sexuality and sexual enunciations across different venues and practices. It is this task, and therefore the final research question posed this study, which I address in the final empirical chapter.

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Chapter 8 – The four domains of MSM's digital sexual practices

> The truth is that sexuality is everywhere: the way a bureaucrat fondles his records, a judge administers justice, a businessman causes money to circulate; the way the bourgeoisie fucks the proletariat; and so on (Deleuze and Guattari 2000:293)

If sexuality is indeed everywhere, as Deleuze and Guattari suggest in this quote, what forms does it take in the materiality of MSM's digital sexual practices? Though sexuality has run throughout my discussion so far, I now explicitly address this question by exploring the ways in which sexuality came to be instantiated in the materiality of MSM's digital sexual enunciations. I continue the post human reading of digital sexual practices in preceding chapters, this time with a focus on the machinic production of sexuality. The machinic production of sexuality involves technical machines, but also 'machinisms' that lead to its assemblage from words, things, and practices (Guattari 2011:10). The schizoanalysis of Guattari (2013) is adopted as a framework for mapping the multiple machinisms of digital sexuality. The decision to use this specific analytical strategy was based on the need, within a minor mode, to apprehend the slippery nature of sexuality as biological, social, and ultimately machinic. Such a machinic sexuality defies easy categorisation as either one of these qualities, and Guattari's schizoanalysis attempts to generate a meta-model that maps out this complexity.

In the first half of this chapter I draw on all of the ethnographic materials generated as part of my study in order to generate a meta-model of MSM's digital sexual enunciations. This provides a framework for the general event of MSM's digital sexual activities. In the second part of this chapter I use the meta-model in order to explore three case studies of digital sexual activities. The first case study is of compulsive use of sex-seeking venues; the second analyses drug taking during a cybersex performance; and the third explores what happens when machines "do" sexuality. These case studies were chosen strategically in order to challenge dominant modes of research in the field of internet sexuality.

Research into Internet sexual compulsivity is "psy" focused, originating mainly from psychological disciplines (e.g. Cooper 1998, 2000, 2002). The literature drawing on camera performances and cybersex is similarly Royal, being heavily influenced by representational theories in order to understand these settings (e.g. Waskul et al. 2000). The machinic production of sexual enunciations through the meta-model is therefore used as a way of problematising these first two areas of digital sexuality research. The third example, of machines pretending to be men to lure others into paid websites, is illustrative of the new forms of sexual enunciation made possible by technological machines. It also illustrates the machinic nature of sexuality, through attempts to deconstruct it into algorithmic form. As machinic subjectivity is integral to my discussion in this chapter, a brief introduction to this topic follows.

8.1 Theoretical refrain on machines and subjectivity

> How should we talk today about the production of subjectivity? From now on, no domain of opinion, thought, image, affect or narrativity can pretend to escape from the invasive grip of 'computer-assisted' data banks, the telematic, etc. (Guattari 2013:1)

As the quote above indicates, Guattari was particularly drawn to the role of technical machines in the production of subjectivity (Watson 2009:124). The relation between machines and subjectivity has deepened with wider changes in social systems. Deleuze (1992) suggests that society has moved from a solely disciplinary one that functioned via panoptic observation and punishment (i.e. Foucault 1991), to societies of control through continual monitoring and modulation of behaviour. Deleuze (1992:6) goes on to suggest that this new type of society operates via machines of a different order – that of computerisation. Similarly Guattari (2013), in his most complex writing on schizoanalysis (*Cartographies Schizoanalytiques*, shorthanded to CS), focuses on the insertion of machines into subjectivity. In CS it is suggested that 'the contents of subjectivity depend more and more on a multitude of machinic systems'; and vice versa, that subjectivity is entering into machines, 'after all, [machines] are nothing other than hyperdeveloped and hyperconcentrated forms of certain aspects of human subjectivity' (Guattari 2013:1-2).

Rather than the relationship between machines and subjectivity being one of machines inflecting upon bodies, that in turn effects subjectivity, Guattari (2013:2) postulates a 'double bridge' between humans and machines that has two affects:

1. current informatics and communication machines do not just convey representative contents but equally contribute to the preparation of new (individual and/or collective) Assemblages of enunciation;

2. all machinic systems, whatever domain they belong to – technical, biological, semiotic, logical, abstract – are, by themselves, the support for proto-subjective processes, which I will characterize in terms of modular subjectivity.

Guattari, in this extract, alludes to the possibility that technologies contribute to the formation of new forms of enunciation. In the previous chapter on commercial sex, I used examples from Craigslist and cybersex to illustrate how technologies diversify commercial sex and lead to novel assemblages of enunciation. However in addition to these new assemblages, technologies are also forming modular subjectivities that are interchangeable, and always being recreated – as I will discuss later in relation to the concept of lived territories. Linking back to my discussion in Chapter seven, capitalism and machinic subjectivity are therefore intimately interwoven. The move to a schizoanalytic model, one which encompasses the unconscious and pre-personal production of subjectivity, is therefore warranted when taking the view of the human subject as a complex and multifarious assemblage. As Guattari (2000:35) states, 'there are all sorts of ways of existing that lie outside the realm of consciousness'.

A provisional definition of schizoanalysis provided in CS is 'the analysis of the impact of Assemblages of enunciation on semiotic and subjective productions in a given problematic context' (Guattari 2013:18). A less esoteric way of putting this is that schizoanalysis is the study of bodies from a materialist perspective (Bonta and Protevi 2006:138). As highlighted in Chapter three, the task of schizoanalysis is a functional one, in understanding and mapping out desiring-machines (Deleuze and Guattari 2000:322). The psychoanalytical approach of converting the subconscious into language ostracises the extra-linguistic from the analytical process (Buchanan 2013). Similar patterns of thought, which focus on meaning, are pervasive in society, the logic of the root-tree (Deleuze and Guattari 2005:5) – see for example Coleman

(2013a) for a critique of this representational thinking in visual analysis. In turn this position relates to the absence of materiality and a focus on meaning in prior studies of MSM's digital sexual practices. Schizoanalysis however analyses desiring-machines in terms of how they function and what composes them – though meaning and representation still have a role in the functioning of these machines (Buchanan 2013). Though there are several configurations of schizoanalysis throughout Deleuze and Guattari's (2000, 2005) works, the specific strategy or meta-model Guattari (2006, 2013) develops in CS is used in this chapter. The following section starts by exploring the general structure of this meta-model, before going on to consider each of its elements in turn, and with reference to empirical materials from my study.

8.2 Schizoanalytic meta-model

8.2.1 A general overview of Guattari's four quadrant model

The schizoanalytic meta-model developed by Guattari (2006, 2013) was based around the interplay of four domains that compose assemblages of enunciation, shorthanded as the FΦTU diagram. This diagram composes material and semiotic flows (F), machinic phyla (Φ), universes of reference (U) and existential territories (T) – explained in greater detail shortly. Guattari (2013) suggests different ways in which the four domains can be configured, of which I use his quadrant system as outlined in Figure 28. I chose this particular modelisation based on the relative ease with which it can be populated and interpreted for each singular event. Included alongside the Guattarian terminology for the four fields, the square brackets in Figure 28, I also include Watson's (2015) categories, as they provide a clearer indication of the nature of these domains as: matter-energy, systems, cultural unconscious, and embodied self, or FΦTU respectively. As an example of the use of this meta-model in sexuality research, Watson (2015:109) produced a model of different forms of masculinity. Rather than focusing on a single hegemonic masculinity, Watson (2015:108) traced the shifts in masculinity as it passed through the four domains, in an attempt to illustrate how 'social models and lived lives collude in producing and maintaining masculinities'. The meta-model thereby enabled the reduction of a complex

phenomenon, in Watson's case masculinity, to something manageable through the research event assemblage, without losing its complexity.

The four domains 'have the task of conferring a diagrammatic, conceptual status… on the virtual enunciative nuclei stuck within manifest Expression' (Guattari 2006:60). That is, the meta-model moves beyond the subject-object split, to grasp the materiality of subjectivity and enunciations (O'Sullivan 2010a:276). This method of schizoanalysis attends to all four domains, not in an attempt to reduce them, as would be the Royal sciences approach by extracting constants from variation, but in order to complexify the event of enunciation (Guattari 2006:61). Each domain is a way of perceiving the factors at play within an event (Cole 2014:para.2). In the case of my study, the event was MSM's digital sexual practices. General examples of the contents of each of the domains have been added to Figure 28 to aid in their interpretation. The domains and their inhabitants are explored in detail in the following discussion.

Figure 28: The assemblage of the four domains - FΦTU diagram

	Effect/*Actual*	Affect/ *Virtual*
Possible	**Systems [Machinic Phyla]** *Examples: Discourses/ Institutions/ Technologies* *(Φ)*	**Cultural Unconscious [Universes of Reference]** *Examples: Traditions/ Values/ Aesthetics* *(U)*
Real	*(F)* **Matter-Energy [Flows]** *Examples: Words/ Capital/ Matter*	*(T)* **Embodied Self [Existential Territories]** *Examples: Body/Lived Experience/Lived Space*

The domain of flows (F) is the real substance upon which the (social) world exists, for example flows of words and money, but also flows of matter. In the case of MSM digital practices this may be the biological flows of hormones, bodily fluids, but also flows of men between venues. Existential territories (T) are the domain of the lived

body, the territory of our experiences, both within physical space but also affective-subjective space. Both Flows and Territories are on the side of the real, meaning they have a presence and a materiality. Even in the case of emotions, which have an affective quality, these are real despite being conceived of as within bodies.

On the possible side, Φ denotes the actual machinic nature of an entity, or how it functions as a system. This is the domain of structure and structuring devices, known as abstract machines (Deleuze and Guattari 2005), for example discourses and institutions that shape flows of materials and channel them in specific ways. U is the domain of the virtual cultural unconscious that, for lack of a better description, is a source of inspiration upon which structuring machines and lived bodies draw e.g. traditions, values and aesthetic styles. Coleman (2013a) suggests that the virtual element of the visual is missing from analyses of images, specifically their intensive aspects – thereby locating them in the domain of universes as I discuss in Section 8.2.3.

Both Φ and U, in representing the side of the possible, are ghostly domains and exist only in so far as they are instantiated in matter. For example the material configuration of Bentham's prison is the realisation of panopticism in material flows of brick and bodies. Values are realised in lived experience, for example the cobbling together of personalised and mosaic masculinities drawing on different (virtual) aesthetics (Watson 2015:111). Alternatively, moving from the virtual possible to the real, future assemblages come to affect lived experiences in the present (Coleman 2013a, 2013b; Ringrose and Coleman 2013).

Though Figure 28 is a two dimensional model composed of two axis (Possible ↔ Real; Actual ↔ Virtual), Guattari (2013:57) indicates that this quadripartition would be more suitably represented by a topological surface, folding together the four domains. Passage between the planes is an essential part of existence, forming the productive process necessary to sustain life (Watson 2009:124). Although all four domains are engaged within assemblages, components from any one domain can dominate (Watson 2015:108). The four domains are therefore not necessarily equitable, and this instability is the source of productivity and flow, as well as stoppages. However in further diagrammatisations in CS (Guattari 2013), passage

through the domains is shown to be processional between adjacent domains, such that there is no diagonal movement i.e. between the systems domain (Φ) and the lived territories (T). As an example, panopticism in social media (Φ) comes to affect lived experiences (T), only through its effects on flows of images, words, and bodies (F). In line with rhizomatic concepts developed by Guattari working with Deleuze, the meta-model can be entered at any junction and followed around through the other domains.

Rather than reducing events, the meta-model opens up lines of departure – regions of de-territorialisation – from which to change the diagram and reconfigure MSM's digital sexuality. Watson (2015:119) saw the potential for the activist nature of the meta-model, adopting it in order to explore different formations of masculinity. Similarly, using the meta-model destabilises Royal research into digital sexuality, where the key thematic shared by the majority of studies is a focus on the construction of identities and or their representation within cyberspaces (Wakeford 2000:411). Identities are one instantiation of sexuality within the realm of lived territories, whereas the meta-model attends to the multifarious forms that sexuality can take.

Though each quadrant within the collective assemblage is addressed separately in my discussion, the four quadrants are in fact interlinked and enfolded into one single event (Guattari 2013:57). As I have reiterated throughout this thesis, mapping and a network sensibility entail movement. Therefore there was slippage between the quadrants following the cycle of sexuality. At points my discussion focuses on movement between domains, rather than on the nature of these domains as if they were their essential nature. My discussion starts with sexual territories, being the place of the phenomenological body and lived experience, and which are therefore the most familiar to us all (Ringrose 2015:399).

8.2.2 Territories of the embodied self (T)

> The territory is the product of a territorialisation of milieus
> and rhythms… it bites into them, seizes them bodily (Deleuze
> and Guattari 2005:314)

In this quote, Deleuze and Guattari mark out the functional relationship between universes (milieus) and lived territories. Territories mark out functional spaces of culture; they territorialise the infinite virtual possible combinations of doing reality, making them real. The process by which these universes of the possible are brought into the real is through the refrain. If universes are an undifferentiated surface, territorialisation through the refrain acts to cut out shapes within this surface. Territories therefore represent the drawing of a boundary around a region and the fixing of an identity, whilst the refrain is a zone of qualities that fill that territory. Therefore there is a concomitant capturing of intensive properties within a functional space (Guattari 2006:15). For example colour as an intensive property can be used by certain animals to make a display (sexual, territorial). Colour therefore becomes a functional property that dictates the rhythm of a territory (Deleuze and Guattari 2005:315).

> Certain specific song sequences serve to seduce a sexual
> partner, warn off intruders, or announce the arrival of
> predators (Guattari 2006:15)

Here Guattari provides another example of the refrain and its role in sexual selection, this time being enacted through the sonorous nature of birdsong. Using this ethological example, comparisons can be drawn with sex-seeking profiles on Grindr for example, and how their elements function to generate affects in sexual partners – see also Ringrose and Coleman (2013) on the affects of social media-body relations. Refrains act by extracting an existential motif from Universes, for example certain aesthetics, that are then amplified and used to attract partners. These motifs are the ways of living and inhabiting territories. Foucault (1997:146) for example draws attention to gay styles of living that eschew heterosexual partnering, whilst Hocquenghem (1993) views homosexuality as a way of being that favours polymorphous partnering.

The extant literature on digital sexual practices posits that the lived territories of MSM open up onto universes of mediatised representations of the (gay) male body – see the body beautiful and pornographic tropes in Duggan and McCreary (2004) and Mowlabocus (2010a, 2010b). Sex-seeking venues draw on pornographic tropes in order to structure their design and service provision. Taking the example of Grindr, "Tribe" is the terminology used to describe the system that allows men using the app to classify them-selves[33]. One such categorisation is that of Twink, which commonly refers to someone who is slim and young. Although the label itself may not have any actual referent, it is appropriated from pornographic universes and used in the formation of sexual territories on MSM's profiles (Mowlabocus 2010b). The user draws a boundary, or territorialises onto an identity within the Grindr interface, which borrows from milieus other such "Twinky" comportments and visual cues such as the display of smooth hairless bodies.

Mowlabocus (2010b:210) highlights that in taking on such identities, users are placing themselves in relation to 'subcultural understandings' of what these identities involve i.e. what a Twink looks like and does. These identities can remain in the realm of digital materiality. However within sex-seeking venues, online and offline are contiguous and entangled if Grindr users are to meet, and the existential territory envelops both. Twink therefore fixes flows in the offline, thereby capturing bodies (Ringrose and Coleman 2013:134). Men's bodies become smooth, hairless, and thin in order to fit the category, either naturally or through concerted effort on the part of the Grindr user. There was also an element of which the body was "captured" in words and images to best fit body ideals (Coleman 2008a:171). For example only parts of bodies were focused on, or techniques of capture used such as lighting and filters applied to images. In chapter seven, this capturing was used strategically by men engaged in paid cybersex to frame parts of their bodies and performances, thereby potentially producing particular experiences in the viewer-user, from which they could extract value.

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[33] As at 2016, Tribes include: Bear, Clean-cut, Daddy, Discreet, Geek, Jock, Leather, Otter, Poz, Rugged, Trans, and Twink.

In the process of boundary formation, a space is created which is inhabited from time-to-time within the Grindr-verse. Similarly in Craigslist posts, which are predominantly textual, motifs may mark out particular sexual refrains. Co-word analysis found that 'Twink' occurred alongside 'young', 'slim' and 'bottom' in Craigslist posts. The following co-occurrences were taken from the headlines from several posts: 'Young twink sub looking for dom', 'young twink slut for older top', 'Fuck a bi bottom twink'. In these examples, 'Young', 'slim' and 'bottom' mark out a specific set of bodily speeds and intensities. These intensities are associated with youth and vitality, and a set of activities, for example being a bottom or the passive partner. As already indicated by Mowlabocus (2010b), Twink may therefore become synonymous with a particular territory, and a particular body type. However though there are repetitions of porno-chic aesthetics within Craigslist posts, cracks appear where MSM make a break with pornographic representation, as the following examples from Craigslist illustrate:

> ***any muscled tops?*** - slim hairy bottom looking for a hairy muscled top for fun masculine GL looking for the same looking to travel I have pics to swap (Craigslist M4M, advertisement, 2013)

> ***Just looking for fun*** - Mid 20's lad, just looking for some horny fun, with a genuine 'helpful' guy. Mild to wild. 6ft 7.5uc slim build & slightly hairy. Can only accom & looking to get it on today not next week. Genuine replies only! (Craigslist M4M, advertisement, 2013)

> ***Hairy slim younger for older stocky top*** - Hi I'm 22 5"10 slim hairy and am a bottom. I'm really tight and have only been fucked once but have been craving an older cock to suck and be fucked by until I swallow your juice (Craigslist M4M, advertisement, 2013)

These examples illustrate the co-occurrence of 'slim' and 'hairy' in MSM self-descriptions; putting this into context, 'hairy' and 'Twink' do not occur together within the Craigslist corpus. A hairy Twink is oxymoronic, and to adopt the refrain of the Twink is in some ways limiting, whilst at the same time opening up onto a particular appeal for a Twink body type. As an example of this appeal, in the previous chapter on commercial sex, men in the seeking services category on Craigslist were found to be older than those in other categories, with a particular interest in paying

for the services of younger men. Identifying as Twink therefore opens up the territories of young commercial sex working MSM to these particular older (paying) others.

To say "I am a Twink", to construct a Grindr profile or camera performance around this enunciation, engages in a form of meaning making *and* structures intensity (Bonta and Protevi 2006:141). It actualises a particular set of virtual futures (Coleman 2013a, 2013b). For example within pornographic genre, Twinks are predominantly bottom/passive (Mowlabocus 2010b). Twink not only means something in representational terms but it also engenders a particular style-of-living for the man who makes such claims. It has (im)material consequences. The subject who adopts the Twink category, and associates with it, opens up onto a space of representation, to use Guattari's terminology, which draws on and intersects with various forms of matter (Guattari 2011:208). This is not to suggest that self-styled Twinks cannot break free of these subject positions (Mowlabocus 2010b:210). The following examples were from Craigslist advertisements: 'Fit twink top', 'horny top twink for r[e]ward'[34]. Though they highlight that Twinks can top and be the active partner, these escapes are few and far between. However as the following example from a Craigslist advertisement illustrates, becoming a unitary subject can be avoided by disassembling the lived territory into parts: 'I'm young, slim, bi not out. drug and disease free, safe, hairy bod, bearded and VERY discrete'. In assembling a modular territory rather than inhabiting a pre-formed subjectivity, such as Twink, this provides more room for at least some of the elements within this advertisement to make productive connections with other bodies.

8.2.3 Universes of the cultural unconscious (U)

Universes of reference are the realm of the virtual-possible, of 'shared affect, values, and culturally specific references' (Young 2013:325), and as such, are referred to by Guattari (2006:27) as universes of sense and value. Affect is an intensive force (Blackman 2012), and as the realm of affects universes are therefore dominated by

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[34] Not from Day in the life corpus.

qualitative intensities. DeLanda (2005:81) suggests that qualitative intensities are divisible, whilst still remaining the same. For example a quality of a body of water is its temperature, however dividing the water does not halve the temperature (DeLanda 2005:81). This consistency means that universes can be drawn on as reference points, acting as retainers for traditions, values, and more importantly in terms of the highly visual practices of MSM, as sources of aesthetics. Furthermore, 'Every actual surrounds itself with a cloud of virtual images' (Deleuze and Parnet 1987:148), meaning that Universes are the many points of reference through which the world subsists.

As discussed in the previous section in relation to the formation of territories, pornographic and mediatised aesthetics can dominate the meta-model. Though this domination is not in question, the reading of these particular aesthetics as part of research is problematised through a schizoanalytic and minor approach. Specifically, schizoanalysis calls into question the reading of aesthetics solely in terms of representation and communication of meaning. Though the domain of aesthetics may have meaning when captured by more structured parts of the meta-model – for example the domain of systems as rules – their primary force is through affect. Coleman (2008, 2013a, 2013b) stages a similar critique of representational "readings" of images by also highlighting their virtual intensive and affective dimensions. Grosz's (2008) work on territory and art is instructive here in shifting the analysis of aesthetics from representation to affect.

Reading aesthetics through art, Grosz (2008:8) indicates that art is the coming together of chaos and order in the 'excessive and useless production' of intensities. Rather than being purely communicational, aesthetics therefore include excess and affect. An example of aesthetics within MSM practices can be found in the work of Hennen (2005), who undertook an ethnographic study of Bear culture offline. As a form of gay style of life, Bear culture was found to draw on 'nostalgic wilderness imagery' (Hennen 2005:34). From my own observations on Grindr, men who associate with the Bear Tribe tend to be visually of a type – facial hair, larger build. In the more textual descriptions within Craigslist, Bears also make links to hairiness, with this being the most common co-occurrence with the term Bear. Rather than

being purely semiotic, the linguistic use of Bear combines with the aesthetics of a becoming-bear. This "Bear-ing" draws on a series of aesthetics from the cultural unconscious of rugged outdoorsmanship, exemplified in pornography (Mowlabocus 2010a, 2010b) but also within media representations more generally. Rather than solely attempting to represent masculinity, Bear aesthetics open up particular sexual milieus including sexual scenes, partners etc.

Following the flows of aesthetics as they are taken up by MSM in the construction of territories reflects one direction of movement around the meta-model – from universes to territories. However another movement from universes to the domain of structures is also possible, with there being a relative dearth of research that explores this movement.

MSM's digital sexual practices place a heavy emphasis on the visual (see Chapter two). In Chapters five and six it was found that the visual field was valued in terms of authenticity. In terms of sex-seeking and cybersex performances, authenticity was linked to the enforcement of a moral order. The chat exchange in Figure 29 exemplifies the relationality between the visual, the authentic, and the moral. It originated from a cybersex performance that was a looped recording of a different cybersex encounter. I observed the performance looping three times over the course of an hour, with the original recording lasting roughly 20 minutes. The performance involved two men engaging in various sexual acts including oral sex, oral-to-anal stimulation (rimming), and anal intercourse. Upon entering the performer's page, the chat dialogue in Figure 29 loaded on the screen.

In the exchange in Figure 29, Kipriyaga was aware of the "con" that was unfolding, 'this is a record[ed] video', and goes on to suggest repeatedly that other viewers should report the video to the site moderators. However during the performance several members of the audience were attempting to interact with the performers as if they were live e.g. 'Hi', 'Sexy man', 'you two do private?', 'nice show guys'. Later in the camera session, further audience members voice their concerns: 'this is not them', 'they would have responded', 'there have been no comments in 15 minutes'. The audiences' reception of the performance as a con highlights the value of

authenticity, and the role of various aesthetics in constructing a moral order within the domain of systems.

Figure 29: Chat dialogue for "fake" performance; Dialogue shifted to right shows comments related to the attempt to close down the performance

Kipriyaga: report guys

Kipriyaga: this is a record video

Cosmmin92: Hi

Hotcockphilia: sexy man

Kipriyaga: record video

Nostra11: Mmmmmmmmmmmm the ass i want buttery soft lick

Kipriyaga: report it!!!!!

Those who were aware of the con were split into two opposing views, for or against the continued transmission of the performance. The unfolding argument posed by each side is outlined in Figure 30 – numbering indicates the order in which the statements were made. On the left hand side of Figure 30, on the side against the performance, it was seen as a scam in the sense that it defrauded an actual performer. Though cybersex shows are ephemeral in the sense that there is usually no lasting record of them, emphasis is placed on the copyrighting of such a work to remain with the creators of the original video. The domain of reference (U) is therefore overloaded by authenticity, causing the assemblage of enunciation to become stuck, as J-z writes 'it's hot, but…'. However on the side for the continuation of the performance, regardless of its originality, the affective potential of the unfolding visual action to produce bodily intensities overrode universes drawing on authenticity: 'who cares', 'just enjoy the show'.

Figure 30: Selected audience responses to "fake" camera performance, those for and against; Numbers indicate sequence of comments

Against	For
(1) J-z: SCAM DO NOT TIP	**(2) Beiber:** who cares j-z...if you don't like, go away
(3) J-z: it's hot, but someone is defrauding the actual performers	**(4) Beiber:** who's helping a scammer...no tips from me...just enjoying the show

The value placed on authenticity on Cam4 and other cybersex venues was also imbricated with what Guattari (2006:48) refers to as 'economic aesthetic universes'. As indicated in Chapter seven, Cam4 has become heavily striated by market ideologies, such that conduct on the site is now structured around exchange. Tips, or the withholding of tips during the fraudulent camera session, had a role in marking out the performance as bad. For example a member of the audience requested others not to tip (Figure 30). In refusing to reciprocate for an inauthentic and therefore bad performance, the audience members appeared to enforce a moral order for tipping. This example therefore illustrates the shift of a set of values from universes of reference to those of systems. In the case of the fraudulent performance, universes emphasising reciprocity and authenticity pass into the domain of systems, becoming an abstract machine that orders the social world and flows of Cam4. It is the concept of abstract machines that I will now explore in relation to the domain of systems.

8.2.4 Machinic systems (Φ)

The domain of systems includes the series of rules which the user is obliged to follow when using digital media, for example through the numerous terms and conditions on websites and applications. Roth (2015:414) indicates that in gay-targeted spaces, user content regulation tends to be 'distinctively restrictive'. These restrictions were linked by Roth (2015:425) to moral sanctions against the visibility of gay sexuality.

For example Grindr prohibits sexually explicit profile images. However the software developer's reasoning for this may be linked to content restrictions placed upon them by Apple Corporation, whom, Roth (2015) suggests, do not want sexually explicit media to occur in a public space i.e. their application store. These normativities attached to appropriate sexuality in public spaces represent the instantiation of particular moral universes of reference into those of systems. The link between legal sanctions from Apple, moral universes (U) of decency, and rules (Φ) is direct in the case of normativities on Grindr. However Deleuze and Guattari's (2005) abstract machines encompass a range of other structuring forces endemic within capitalist society, and which also come to affect MSM's digital sexual enunciations.

Abstract machines are diagrams or prefigured ways of doing things, acting to define patterns and thresholds of complex systems (Bonta and Protevi 2006:47). They set out what assemblages can be and do (Bonta and Protevi 2006:48). From this definition, the links between formal rules and abstract machines is somewhat clearer, with both regulating flows (of words/images/money/desire) through/of digital media. One abstract machine from the domain of systems and rules is that of the faciality machine (Deleuze and Guattari 2005). Faciality refers not just to the focus on the face, but also the process by which things, for example the body, become associated with certain systems of signification. In terms of sexuality in general, both Beckman (2013) and Potts (2000) suggest that faciality leads to sexuality being focused on certain parts of the body and sex acts, namely the genitals and penetration.

In the case of digital sexual activities, the literal face can be facialised, becoming a signifier for authenticity, as has been found in other studies (Mowlabocus 2010b). Across the sexual network, specifically in venues intended for sex-seeking, images of the face are signifiers of trust. The moniker "No face pic = no chat" is a repeated refrain across MSM's digital sexual practices, however its affect in generating lived territories differs in each setting. Tewksbury (2010:para.20), drawing on survey data with MSM who used profile websites, found that the men in his study were more swayed by the display of attractive images rather than just sexualised imagery.

Responding to an advertisement was highly predicated on the inclusion of some type of image, particularly of the face (Tewksbury 2010:para.20). Within a different type of sexuality assemblage, that of camera performances, there appeared to be a different set of facialisations, focusing on "raw" sexuality. In performances involving solo masturbation, performers were found to obscure their faces. However, there were few if any repercussions to the perceived authenticity and therefore value of the performance. Though there were often requests from the audience for performers to show their faces, these requests were, by and large, ignored. On occasion the performer would acquiesce and shift the camera so that they became visible in shot momentarily, or charge extra to be fully in shot. Instead cybersex performances appeared to be facialised onto physique, sexual acts, and in most cases, semen.

The placement of semen after ejaculation was a common aspect amongst the sexual scripts of Cam4 performances – as outlined in the comment box accompanying performances. The following are examples from Cam4 comment boxes: '@cum 15 to lick', meaning cum at goal, an additional 15 tokens to lick his semen; '500 first fuck/every 200 fuck more//cum at goal on… or in…', meaning that the performer will either ejaculate onto or inside the receptive partner. Ejaculation outside of the body was usually followed by the display of semen, the act of which could be interpreted as the facialisation of this body fluid as a sign of completed sexual acts (Moore and Weissbein 2010). In webcam performances and pornography where the insertive partner ejaculated inside the receptive partner, with the act of ejaculation being hidden from view, a display was made of the fact – either by showing the anus after anal intercourse or the performer licking their lips after oral sex.

The difference in facialisation between sex-seeking venues and cybersex performances may be attributable to the different sexuality assemblages they engender. Consumers of solo masturbation may be less interested in the face than they are in the performer's bodily capacity to be sexy, and the visibility of what Ringrose (2015:403) refers to as 'intensive body parts', such as the penis. The facialisation placed on the body and sex acts in cybersex may be evidenced by the performance recounted in the previous chapter (Section 7.4.5), where viewer

numbers sharply increased during scenes where the performers engaged in sexual activities – particularly anal sex. For those engaged in sex-seeking, where the body is at a distance but will presumably become proximate, the face and body are less separate, and the face stands in for the body (and the person), 'no face pic = no chat'.

Within digital sexual settings, the whole visual field becomes facialised within an economy of trust. In Jones' (2005) study of picture exchange within Internet Relay Chat (IRC), the author notes that when interaction shifts to the visual, this follows what he calls a 'code of reciprocity'. Disclosure of images is 'issued with the understanding that the other party will issue an equivalent disclosure as a response' (Jones 2005:75-76). Similarly Shaw's (1997) study of IRC found that participants expected levels of reciprocity when exchanging images. Individuals have adapted this reciprocity into a system of exchange in order to capitalise on sexuality. In the case of camera performances, where there is a money imperative, the value system of reciprocity manifests either explicitly as commodity exchange or implicitly as gift exchange. Examples of commodity exchange included requests for specific numbers of tokens for acts, for example '@500 [tokens] hard', meaning the performer will give themselves an erection on receipt of 500 tokens. Alternatively, a sense of reciprocity could be interpreted in the following examples, again from the comments box on Cam4: 'tip if you enjoy', 'we're gonna fuck regardless, but give us tokens anyway'. In these examples, tokens are gifted to the performers without them being the necessary condition for their continued sexual activity on camera.

The exchange of images as part of sex-seeking was found to be similarly underscored by the value of reciprocity. However the system actualised in image exchange is one of pure commodity exchange, as images became a cultural currency within digital sexual venues (Mowlabocus 2010b). Commodity exchange is used here to differentiate from gifts, in that there is an element of bargaining involved (Bell 1991), for example through statements such as 'no pic = no chat'. Through this type of utterance, the commodity value of images is increasingly being engrained into the norms of MSM's digital sexual venues, and the men that use them. For example Tewksbury (2010:para.20) found that men were less likely to respond to a profile

without a picture – roughly 52 per cent of men in his survey said they would either definitely or probably not respond to a picture-less profile/advertisement.

In the case of one sex-seeking profile site, when inputting profile images for the first time, I received a message from the website thanking me for adding the images. Furthermore, the message reinforced such a behaviour by indicating that 'this day and age, most guys won't even respond to a profile unless there are pics attached to it – so by adding pics you've just made sure tons more guys will check you out' (Profile site, personal message, 2016). This therefore highlights the ways in which abstract machines (Φ) are realised in flows of images (F). Ironically, Tewksbury's (2010:para.23) survey found that men who included face pictures in their advertisements/profiles had fewer annual sexual partners than men who did not. Similarly those who included explicit images had fewer annual sexual partners than those with no explicit images. Though value is placed on images, thereby facialising them, as Tewksbury's (2010) findings suggest, putting one's face out there may lead to being judged as unattractive based on a single picture, and therefore to the interruption of flows of bodies and generation of sexual affects.

The abstract machine of faciality is realised in the design of digital sexual venues through the use of categorisations in order to structure these spaces. Returning to the example of Grindr Tribes, this system of categorisation leads to various groupings that can be taken on by the Grindr user e.g. Poz to reflect a HIV-positive status. Categorisations are not mutually exclusive however, and the (paying) Grindr user can select up to three Tribes to belong to – the non-paying user is limited to one Tribe. In a similar vein, Craigslist uses categorisations in order to channel individuals into various gender pairings (e.g. M4M being men seeking sex with men), whilst camera performance sites use gender classifications as their main method of grouping performances (e.g. Female, Male, Trans). This ability to label one's self is in line with the general ethos of societies of control where the individual must make themselves known by taking on an identity, selecting from those predefined categories provided by capitalism (Deleuze 1995).

Guattari (2013:94) proposes that although we have become accustomed to viewing technological machines as uniform assemblages of components, in order to achieve

this sedimentation, this requires the constant movement between systems and their realisation in flows of matter and energy. In the case of digital media there is a continual feedback loop between user-generated content and the sites themselves (Langlois 2011; van Dijck 2013). Langlois (2011) uses the example of algorithms that generate suggestions based on user content. In Section 7.4.5 I suggest that in some paid cybersex venues, a feedback loop exists between viewer numbers, the algorithm that determines placement on the grid, and consumption patterns. Within other the sexual venues of MSM, feedback loops are instantiated in the domain of systems through rules of conduct and self-policing.

All venues allow users to monitor and report on each other's behaviour. Rather than relying on the abstract machine of panopticism to maintain order, whereby the few watching the many, in digital media it is the many who watch the few and each other, in 'parallel synoptic-panoptic processes' (Lyon 2006:43). However as Roth (2015:428) has suggested, though website developers have the technical abilities to enforce any number of restrictions on users, these are not enforced to their full extent in practice. In selective cases, website developers play ignorant to transgressions (Roth 2015:428). This could be attributed to their acknowledgement that in order to make desire flow, they must allow some molecular movement, some margin for tolerated illegality and the 'non-application of the rule' (Foucault 1978:82). However where activities disrupt the norms of the assembled men, either by interrupting the sexual milieu or through their apparent breech of legal universes, this leads to heavier sanctions. In the example of the fraudulent performance on Cam4 where a video was recorded and looped (Figure 30), there was an attempt to rally audience members to report the video as a scam: 'report guys... this is a record[ed] video'. The performance in this example broke with the universe of reference attached to reciprocity and with legal universes of copyright, in that the "actual" performers were being defrauded of the ability to gain profit from their works. By reporting the performance, and realising a system of social order on Cam4, the possible intended affect may have been to interrupt and enforce a moral order over flows of images, words, money, and ultimately desire; It is the domain of flows (F) that I will now consider.

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8.2.5 Flows of matter and energy (F)

> We admit that any comparison of sexuality with cosmic
> phenomena such as "electrical storms," "the blue color [sic]
> of the sky and the blue-gray of atmospheric haze," the blue
> of the orgone, "St. Elmo's fire, and the bluish formations [of]
> sunspot activity," fluids and flows, matter and particles, in the
> end appear to us more adequate than the reduction of
> sexuality to the pitiful little familialist secret (Deleuze and
> Guattari 2000:292)

In this quote sexuality is compared to material flows, including colours, electricity, and sunspot activity. Along similar lines, and drawing on DeleuzoGuattarian theory, Beckman (2013:9) suggests that 'sexuality is the most virtual and the most actual of occurrences. While it is everywhere, it is captured and allowed only to mean certain things'. The domain of flows is therefore the domain of the actual materiality of digital sexuality, through flows of words, images, bodies, money etc. In Chapter six I explored flows of words within Craigslist advertisements using NTA. The use of NTA helped to highlight that, rather than being tokens of isolated information, it is the interrelationship between concepts-words-things that constructs sex-seeking advertisements and makes them function.

As the discussion in Chapter five highlighted, sexual affects are funnelled through the digital sexual web in the formation of sexuality assemblages. This funnelling was a purposeful achievement by MSM through the explicit linkage of venues. In assembling bodies and media there were implicit flows of words and images. Larson (2008:157), in an ANT inspired analysis of digital photographic practices, concluded that photographs unpredictably move across virtual sites. Similarly, in my study images were observed to flow between venues, as men created multiple sex-seeking profiles using the same images. This led to occasions where I recognised individuals based on their body parts (e.g. a picture of a penis), used in different venues.

In addition to the use of the same images in multiple locations, images can flow between individuals as part of picture trading (see for example Slater 1998). Digital media make possible the legitimated exchange of images and videos in real time. For example Snapchat is a mobile phone application where still images, videos, and text, can be sent to other Snapchat users, with media only viewable for a limited time (up

to 10 seconds). If the person receiving the Snapchat takes a copy then the person sending will be alerted to this. In Section 5.2.2 I explored the flows of images between Snapchat and Tumblr in the production of user-generated pornography. However in addition to these legitimated forms of image exchange, the practice of "pic collecting" or picture collecting, was also encountered during the course of my study.

"Pic collecting" is characterised by the practice of engaging in interactions online in order to gain a person's trust, before using this to obtain personal (sexual) images from them. Figure 31 is an example of an alleged picture collector on Craigslist. The main image included in the post was a face picture of a young man, whilst the two additional images were each of a penis. The textual aspect of the post primes the reader to develop a certain sexuality assemblage. For example they mention the advertiser's alleged youth, his virginity, and sexual acts i.e. 'spunk in my mouth'. The last request, 'Not old people tho [sic] only people my age up to 25, fit hung', is presumably intended to elicit images of a particular value e.g. from young attractive men. But, as indicated in Figure 32, the advertiser 'Has an identical post in Plymouth… The photos are obviously lifted from someone else'. The use of the same image in advertisements placed in various regional sections of Craigslist lead to this post being identified as "fake". This example illustrates how the practice of picture collecting results in flows of images, but also uses flows of images and words in their assemblage i.e. in creating the enunciation on Craigslist in the first place.

A final flow encountered during my study was that of money. In addition to flows of images and words, money smoothed and striated digital space. Money flowed between users and corporations, and in doing so caused further flows of digital materials. In the first instance money formed the basis upon which digital venues functioned. Very few digital sexual venues encountered in this study were not-for-profit, with the creation and on-going maintenance of sites requiring money or some form of pay-off. For example though a Tumblr or Facebook account is free for the user to create, it is the advertising that these pages host, and the opening up of personal networks to this advertising that generates money. Banner advertising and pop-up menus attempt to divert traffic (e.g. people) to external websites in order to make money (Månsson and Söderlind n.d.). Even in the case of Craigslist, which lacks

many of these features, the website operators offer extra functions for paying customers, and also charge for advertising placed in other sections of the site – primarily job advertisements.

Figure 31: Example of advertisement placed by alleged picture collector on Craigslist; Images have been intentionally obscured to protect identities

☆ **18 y/o guy wants cock in his mouth and/or ass - m4m - 18 (plymouth)**

I'm 18 athletic build and want to suck your cock till you spunk in my mouth, maybe fucked. i am a virgin and want to explore. Not old people tho only people my age up to 25, fit hung. Send me a pic of your face and maybe one of something else, tell me what you would like to do to me...

- Location: plymouth
- do NOT contact me with unsolicited services or offers

Figure 32: Advertisement warning of picture collector on Craigslist; Images have been intentionally obscured to protect identities

☆ **picture collector - m4m (wherever he can get away with it)**

Has an identical post in Plymouth, put up at exactly the same time as in London, Vauxhall. The photos are obviously lifted from someone else.

- Location: wherever he can get away with it
- do NOT contact me with unsolicited services or offers

In the preceding sections I mapped out the mutability of sexuality, and movements through the domains of the FΦTU meta-model. In doing so I constructed a meta-model for the general event of MSM's digital sexual practices. In the following sections this meta-model is applied to three examples of MSM's digital sexual practices encountered during my study. The first case study is of compulsive Internet use and explores the micro-politics of compulsivity outside of psychology. The second case deploys the meta-model in order to analyse a queer space that opened up during the course of this ethnography, and which fell outside of dominant (representational) systems of understanding sexuality. The aim of this case study is to demonstrate the potential use of the meta-model as a way of analysing queer spaces. The final case of MSM's digital sexual practices examines the utterances produced by "bots" – algorithms designed to interact with men in digital venues in order to direct them to other (paid) websites. In this last example the meta-model is used to analyse the literal machinic production of sexuality. However, though assemblages involve all four domains, as indicated previously, the proceeding discussion draws on those domains that come to dominate assemblages.

8.3 Applying Guattari's meta-model to specific events of MSM's digital sexual practices

8.3.1 Online compulsivity as temporal intensification

Online Sexual Compulsivity (OSC) is considered by Cooper et al. (2004) to be a particular subset of problematic Internet behaviours. OSC is defined as involvement in activities 'in an on-going way to the degree that it interferes with aspects of work, social, and/or recreational dimensions of one's life' (Cooper et al. 2004:131). OSC therefore marks the loss of control over the ability to regulate such activities. This perspective on digital sexual activities pathologises Internet usage, and potentially stems from the Royal science application of causative logic to the encountering of bodies and machines. A similar negative causation was identified and critiqued by Coleman (2008), in terms of the media's effects on (young female) bodies. Within a Royal approach, technologies impact upon bodies and impose upon them new forces, pulling them off-course away from a norm, and into pathological lines. If we

reimagine the body-technology interaction as an enunciative assemblage through the meta-model, how does this reconfigure OSC? In the following section I explore this question using examples of compulsive Grindr usage. Grindr was chosen as its mobile nature means that it taps into the zeitgeist of digital media through continual connectivity (van Dijck 2011, 2013), and therefore provides an interesting example of body-technology-sexuality interactions.

Drawing on Deleuze and Guattari's (2000, 2005) rhizomatic style of writing, which used literary works to articulate affective connections, the following excerpt from a short story is given in order to provide a glimpse into the compulsive use of mobile "sex apps". Here, a young man, the author of the piece (Stewart 2014), explores his own use of Grindr and the affective resonances of such use.

> You look at the app again, you open it, cradle it and stare at his picture. You feel pathetic. Pathetic for being this person, pathetic for feeling powerless… You are powerless and in some vague attempt of restoring it you block him and close the app, you uninstall it and sit alone in your room with no sound, no company (Stewart 2014:para.6)

In this account of media use, compulsivity is actualised through the repetitive use of Grindr to spy on a former lover, and it is this repetitive engagement that is illustrative of the material components of compulsivity. I would therefore argue that the meta-modal can be profitably used to re-examine compulsivity without reducing it solely to its psychological components, or as articulated in the above quote 'feeling pathetic', at a loss of its materiality and affective capacities – 'you open it, cradle it and stare at his picture'.

During observations of MSM's digital sexual practices, men using Grindr disappeared, only to reappear – the curious case of the vanishing men. Some presumably left after finding partners, as in Figure 33 where the individual is partnered and 'deleting soon'. Brubaker et al. (2016) find this type of negotiated exit in their research into leaving Grindr. Their study found that there was a negotiation between partners on the use of the app, leading to the eventual anonymisation and removal of Grindr from their devices (Brubaker et al. 2016). However another more vocalised exit can be found in Figure 33.

Men on Grindr write out their leaving, usually stating anger or disgust with the use of such apps, or the men on them ('had a gutsful of this app'). Also expressed by some men was the general insufficiency of these venues at providing them with what they wanted and needed at that point in their lives. Compulsivity is enacted here in the reinstalling of "sex apps", and the reactivation of accounts. As blogger The Grumpy Gay (2013:no page number) noted, 'The number of times I've been on Grindr and seen the message 'I'm deleting Grindr tomorrow!' and then seen the same profile floating around for another two months afterwards'. Later in the same blog entry, the author indicates that 'Unlike quitting cigarettes, Grindr addiction is all in your head. Let's get some perspective… it's just an app' (The Grumpy Gay 2013:no page number). However working through the meta-model it could be suggested that just like alcohol and cigarettes, the addiction of Grindr is all in the body (as assemblage).

Figure 33: Examples of Grindr profiles where men write out their "leaving"; Profile images have been obscured with grey circles
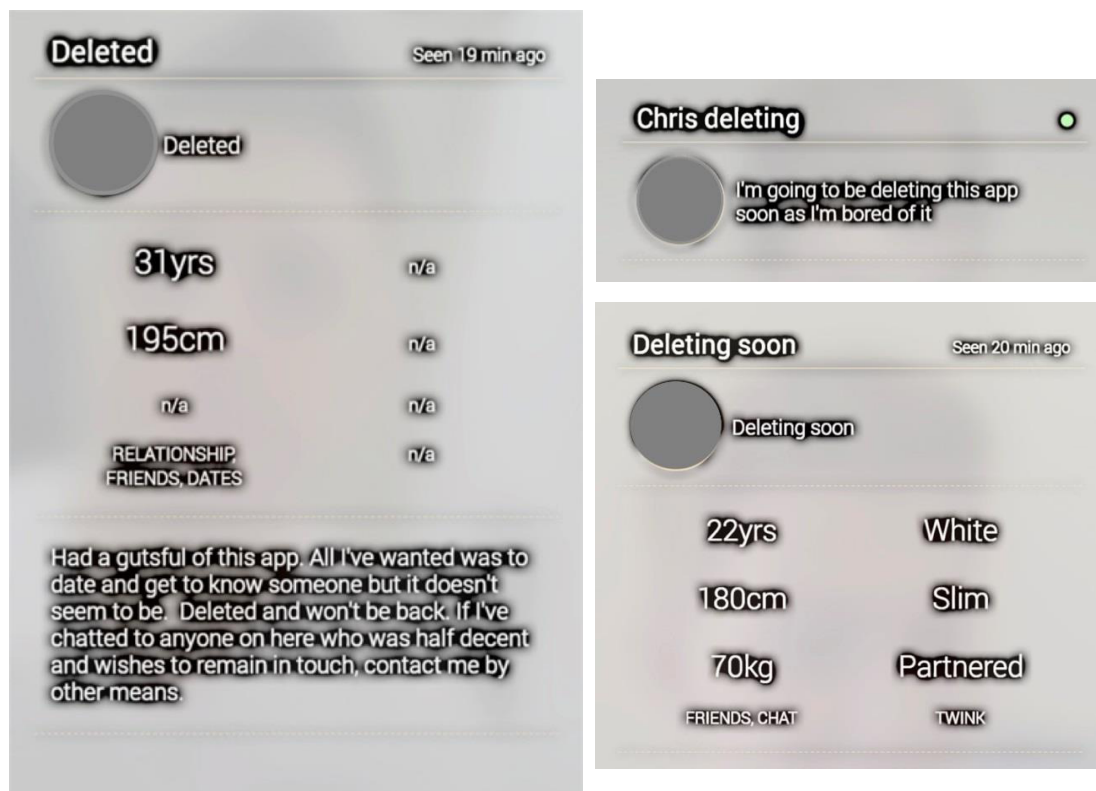
In his work on Internet gaming, Cook (2009) conceives of addiction as a predisposition to reform a particular kind of assemblage (Cook 2009:185). In forming assemblages in particular ways, this chases the production of certain intensities

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(Cook 2009:194). Here I would suggest that Grindr and other forms of MSM's digital sexual practices produce intensity addictions through the same mechanisms. This link between sexuality and game play has also been made by Tziallas (2015), where it was suggested that MSM social networking venues were homologous with games in that they both have goals, rules, feedback systems, and voluntary participation.

Returning to Cook's (2009) analysis of Internet gaming, the author draws on the Deleuzian concept of the Body without Organs (BwO), in a departure from psychological understandings of addiction. The BwO is a difficult concept to grasp however thinking it through the meta-model can help in its interpretability. Within Figure 28, the BwO is located within the right hand column and the realm of affects, within and across the cultural unconscious (U) and territories of the embodied self (T) (Watson 2009:125). The BwO is therefore a feedback loop between universes and territories. In the case of addiction, following Cook (2009), a BwO is constructed that leads to the formation of territories that can only be filled with specific intensities from universes. However there is a danger when constructing the BwO in such a way as it becomes emptied out through 'highly ritualized activity that seeks to eliminate other signifying components' (Oksanen 2013:61). This influences desire flows in that they become increasingly rarefied to a limited number of assemblages (Oksanen 2013:60), for example only using apps to find partners, or only having casual sex with partners found via these apps.

For Deleuze and Guattari (2000:19), difference is important when producing the BwO, as these differences result in changes in intensity. As an undifferentiated mass, the emptied out BwO is indistinguishable from the cultural unconscious, and as a result no creativity occurs. The direct consequence of addictive desire is the production of certain speeds and rhythms of desire, or the production of certain temporalities (Oksanen 2013:61). In the case of Grindr use the intensities produced speed things up. As one forum member describes of his Grindr use, 'I'm hooked on it, I need to slow down' (Forum, post, 2013). These temporal aspects of addiction relate to the different rhythmic refrains that come to define territories and produce difference. As summarised by O'Sullivan (2010b:196) 'production of difference in itself involves the deployment of different temporalities'. Compulsive digital sexual

practices therefore further deplete the meta-model of energy because the individual continually chases after certain sexual intensities and aesthetics (speeds), to the detriment of other ways of knowing and doing sexuality. Holmes et al. (2010) found a similar ossification of sexual affect in offline public sexual encounters, where men would habitually and mechanically engage in public sex with this becoming their only means of release. It is this particular emphasis on temporality and the construction of difference that opens up new avenues for understanding compulsive use of Grindr.

Though Grindr and other digital media are often discussed in relation to their effects on the spatiality of socio-sexual relations (Blackwell et al. 2015; van de Wiele and Tong 2014), very little is implicitly said about time outside of usage rates. For example both qualitative and quantitative studies have highlighted the temporal boundaries of heavy use. In Grosskopf et al.'s (2014) online survey of MSM who use Internet and mobile applications for sex-seeking (N=126), the authors found that over half of the men used digital media for sex-seeking either daily or more than once a day. Similarly, a survey of Grindr users (N=195) conducted by Rice et al. (2012) suggested that Grindr was a time drain, with roughly 78 per cent of men using it more than once a day – roughly 50 per cent of men used Grindr more than five times a day. In addition to their implied use as sex-seeking tools, a survey exploring uses and gratifications of Grindr found that it had entertainment value in alleviating boredom and simply to browse pictures of men (van de Wiele and Tong 2014). These numerous studies suggest that Grindr users err on the side of heavy use, whilst increasing portions of time are being filled by using the app. It is this getting swept up in the flow of machinic time which has the potential to limit the temporalities that the Grindr user is able to experience.

Rather than being purely within a subjective feedback loop between territories and universes, there is also an element to which systems and flows intersect to produce temporalities. As noted by Tziallas (2015:766), MSM social network sites provide the user with tools that fuel optimism, despite pessimism that you encounter more of the same. This pessimism is apparent on Grindr, as one man indicates in Figure 33, 'I'm going to delete this app soon as I'm bored of it!' (Mobile app, biography section, 2013). Tools take the form of continual redesigns of digital sexual venues that are

advertised as improving the service i.e. the addition of social media linkages to the Grindr interface (See Chapter six). Re-tooling of the Grindr experience is therefore illustrative of how elements of the systems domain are used by designers and corporations to cause interruptions to the domain of flows. In turn these interruptions lead to frustrations forming in lived territories. It is these frustrations that push the game of sexual encountering along endlessly, which Tziallas (2015:766) suggests requires that users always be online.

Limiting the amount of time spent online is espoused as one of the main ways of reducing compulsive internet usage and breaking cycles of behaviour (Cooper et al. 1999), reclaiming time by doing other things (The Grumpy Gay 2013; Young 1998). Rather than repeated use of Grindr being necessarily a corrosive practice, it is the effects that repetition without difference has on emptying the BwO which are of greatest concern within a DeleuzoGuattarian framework. This repetition produces a cancerous BwO, being the realisation of assemblages in such a way as to preclude their patterning in alternative ways (Bonta and Protevi 2006:121). Repeatedly using Grindr for sex-seeking leads to the sedimentation of flows of sexual affect through pathways of least resistance, as indicated by one member of a forum, 'I love grindr! It's so easy to get laid off there' (Forum, post, 2013). Furthermore, the cancerous BwO develops feedback loops between itself and the lived territories that attempt to colonise further territories. Repeated use of Grindr for sex-seeking may therefore preclude other venues and other types of (sexual) relations.

In contrast to the emptied out BwO of the addict, which descends into a black hole (of signification) or is dragged toward catastrophe (Deleuze and Guattari 2005:161), the full BwO is the most productive form of the BwO. Opening up to different profiles and different subjectivities can lead to more and potentially "better" connections. As one forum member states, not limiting himself to one venue such as Grindr meant that he could cast a wider net 'and get much better, bigger fish' (Forum, post, 2012). Using the meta-model therefore highlights the socio-material settings for compulsive use of Grindr, and potential ways of working toward the creation of different connections and sexuality assemblages.

8.3.2 Becoming man-pig: The more than human sensuality of cybersex

In the previous case study I used Guattari's meta-model to refocus digital sexual practices away from anthropocentrism, which casts compulsivity as being a largely psychological phenomenon. In the following section I adopt the meta-model in order to undertake a reading of a queer digital sexual practice that fell outside of the sphere of representation and signification. This case study is of a camera performance where I observed a man injecting himself intravenously before he engaged in various acts of self-stimulation. The focus of this example is on the more than symbolic aspects of the sensuous flows of drugs, bodily fluids (hormones, blood, and semen), and digital media within a cybersex assemblage. Furthermore, it explores the continual criss-crossing between systems of words, discourses, values, and aesthetics, as the meta-model continual seeks to adjust itself.

I entered the cybersex session from the grid of male performers. Details immediately available to me on the man's profile indicated that he identified as gay and was based in Germany. In the video feed I could see a man wearing a jockstrap sat on the end of a bed, with the camera framing both the man and the entirety of the bed. The man's arms were involved in some action around his upper torso. A red belt was tied around his upper right arm and he appeared to be holding an object in his other hand, pressing it against the inner part of his right arm. There was no music playing in the background, however the sound was on as his moans were clearly audible as he undertook whatever procedure he was doing. After a short period of time the man stopped and removed the belt from his arm, fastening it again on his left arm instead. He then proceeded to insert the object, which was now clearly visible as a syringe, into his left arm. Whilst injecting himself the man proceeded to show to the camera the injection process from various positions. Initially he held his arm sideways on to the camera, so that the audience could see the syringe in his arm. This was followed by a close up angle where the arm was brought up and perpendicular to the camera's line of sight.

Whilst the man was injecting himself there were words of encouragement from the audience. These included instructions on parts of the body the man could inject himself, and that made it easier to take the drug e.g. 'inject the cock... easier to get

in'. From the use of terminology within the chat dialogue it was assumed by the audience that the man was using methamphetamine, also known as 'meth', 'Tina', or 'T'. As with other forms of digital sexuality, the visual field was used by the audience in order to convey taboo subjects and/or in-group knowledge. As can be seen in extracts from the chat dialogue in Figure 34, the 'T' was emphasised in words, thereby suggesting the use of meth. Throughout the session the man emitted guttural moans that peaked in intensity shortly after injecting himself. Directly after each "hit" (injection), the man writhed on the bed, moving with jagged, jittery motions, seemingly coming undone. After the man had finished injecting himself, and once he had (re)composed himself from the momentary high, he proceeded to use various sexual paraphernalia, including a dildo.

Meta-modelisation allowed me to think through the non-human as part of this sexual enunciative assemblage, in this case in the production of the drugged-sexy body. The camera, drugs, and paraphernalia, all combine to make the body flow in a particular way and with a particular speed. For example the man's movements incorporated the camera as he attempted to show the injection process. Furthermore, in combination with the cam-site and other bodies on the site, the man underwent various "becomings": becoming animal, and specifically becoming-man-pig. The audience call the man on camera pig ('sau') on several occasions (Figure 34), which alongside the generally feverish pitch which the audience member's comments reached, brought this performance to an animalistic excess which overflowed (human) sexual identities. Here the flows of words 'du sau![You pig!]' and flows of matter – drugs, desire, hormones – combine as part of the man's sensual experiences, to produce a territory that is filled with intensities. The temporalities and intensities of the addicted body (without organs) discussed in the previous chapter are here viscerally experienced by both performer and viewer. However in becoming man-pig, he never fully obtains the status of a pig, but borrows from the pig certain aesthetics of movement, comportment etc., of excessive engrossment in a sexual scene to the exclusion of everything else.

Figure 34: Encouraging audience comments made during webcam performance where performer was injecting intravenous drugs

There were moments where the sexuality assemblage, combining the man, camera performance, and on-going dialogue exchange, were territorialised (facialised) into the realm of the signifier. This facialisation was demarcated by questions being posed by the audience members, as shown in Figure 35. Whilst the audience were attempting to pin down what was happening on screen, they were, in essence, attempting to bring the man's ecstatic state within the bounds of representation – Butlerian interpretability (Butler 1990). In addition to pinning down the visual field, audience members also brought the on screen action within the realms of intelligible sexual acts, through fairly graphic elaboration of what they wanted the man to do e.g. 'I bet he wants cock so bad right now', 'FUCK WITH DILDO', 'now he just needs his hole slammed'. This brought the performer's assemblage back into familiar territories, focusing on the penis, penetration, semen etc.

Further on into the camera session, a contested space opened up, as illustrated in Figure 36. The exchange took place amongst the audience members Jock, Slave, and Hung (all pseudonyms of pseudonyms), where Jock was against the performance. In the exchange between these audience members, the gay community is invoked as a way of enacting a normalisation of proper sexual behaviour. Warner (2000:32) notes that 'on top of having ordinary sexual shame, and on top of having shame for being gay, the dignified homosexual also feels ashamed of every queer who flaunts his sex and his faggotry'. In invoking gay shame, the objector (Jock), annexes the queer sexual multiplicity of the man on camera and tries to overload the assemblage by drawing on one particular domain. Though flows of words take place, it is cultural references to community, the values that inhabit these and the aesthetics that they draw on, which are doing all of the work in attempting to dominate this assemblage.

Figure 36: Audience comments that open up a contested space for and against the use of drugs during a camera performance
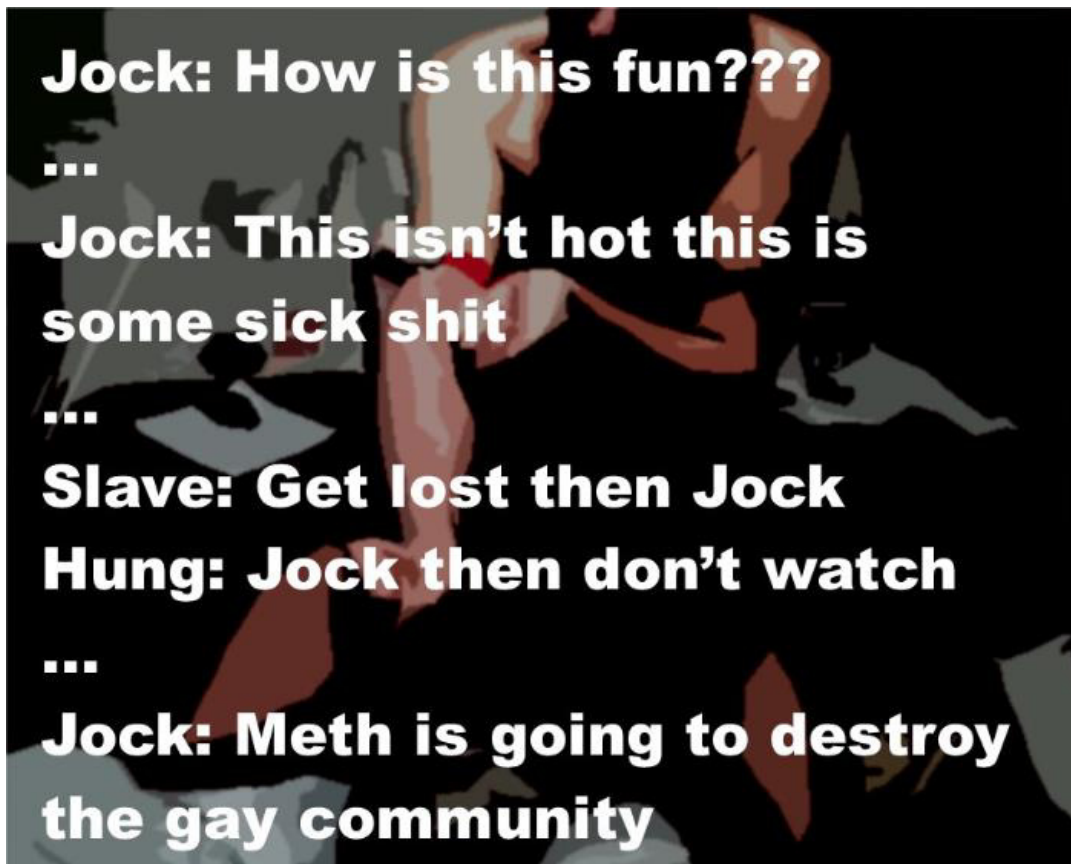
The space of this performance occupied a particularly precarious position between the sensuous experiences of the drugged-sexy body and the domain of systems. As with other venues within the network-assemblage of MSM's digital sexuality, paid cybersex sites prohibit the use or depiction of drug use. Breaching these rules can lead to immediate removal and banning from the site. However as Watson (2015:118) notes, the 'systems quadrant does not always succeed in establishing the agenda of an assemblage', and in the case of this particular camera performance, the rules regarding depictions of drug use were not initially enforced[35]. Moderators police the space of the camera performance, whilst the audience members can also report the performer for infringements. The majority of the viewing audience in this example were invested in the performance, either for its erotic potential or as I was, out of morbid curiosity. Furthermore, moderators were presumably chosen by the

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[35] Observations of this session lasted for roughly 40 minutes, during which time the performance was not terminated. Furthermore, returning to the performer's profile several years after observations, their profile was still active. This therefore suggests that the performer was not subject to the domain of systems i.e. the deletion of their account.

performer and were therefore complicit with the action. As such the imposition of the systems domain over that of flows faltered, illustrating that although rules may exist as spectral actual "possibles", without their active realisation in flows of matter, they remain abstract.

8.3.3 'Hey that wuz quick man': When machines do sexuality

In Chapter seven I discuss the ways in which capitalism and the market ideology redirect flows, thereby altering intensities and sexual affects. Desiring machines are altered in this way by both MSM and corporations in the exploitation of sexuality. However as highlighted in Chapter five, desire energy is syphoned from sexuality assemblages and routed into commercial sex assemblages. Kreps (2011), Månsson and Söderlind (n.d.), and van Dijck (2013), all highlight that linkages between venues form the main practice through which corporations extract value from flows of bodies through digital media. In this final case study I explore some of my interactions with computer algorithms (Bots) on mobile "sex app" Grindr, as examples of this capitalistic syphoning off of desiring energy. Computer algorithms are examined here as they provide an extreme limit case of the machinic production of sexuality and sexual affects. 'Want to watch me play with my big meat?'; this statement, made by a bot on Grindr, is provocative of the enunciations produced when machines "do" sexuality. Using the meta-model was therefore appropriate in order to grapple with the cultural, aesthetic, subjective, and material aspects of these enunciative assemblages.

Computer algorithms that act independently of human others are known as bots, and are designed to autonomously respond to certain queues (Auslander 2002:18). Leonard (1998) indicates that these algorithms are the first indigenous species on the Internet. Though bots have a number of purposes, on Grindr it has been reported that they can be used to transmit malware to the user's mobile phone (McCormick 2015). Alternatively, and as reported on similar apps such Tinder, bots interact with users to direct them to other services such as Kik, in order to engage in flirtatious chat that then leads to pay-per-view websites (Narang 2014). Figure 37 is a series of screen captures highlighting a conversation I initiated with someone on Grindr,

thinking that they were human. Unlike other forms of spam-bot, the geo-spatial nature of Grindr requires that bots fabricate an emplaced persona. In this case, the bot, who had a human profile picture, appeared to be less than 500m away. The conversation starts with me typing 'Hello there'.

In the ensuing conversation my desire-energy directed at what was assumed to be a person, was quickly funnelled into a commercial sex assemblage by the model-bot – fours lines into the exchange in Figure 37. The model-bot included a hyperlink directing me away from Grindr toward the 'aspiring models' page[36]. This link was not opened in order to avoid downloading any malware or other infectious software onto my mobile device. Ever helpful, the model-bot then went on to reassure me of what I would have found had I followed the link, being a page where I would have signed up to a service by including my credit card details. The model-bot pre-emptively answers any concerns that the link was fraudulent. These reassurances have been found in the scripts of other bots operating on similar applications, Tinder for example (Narang 2014). Despite the model-bots reassurance that I could sign up to the service for free, others following such links and accessing these pay-per-view websites often have to navigate through a misleading process that can see them signed up for multiple services, and still be charged (Olson 2014).

I interacted with numerous other model-bots on Grindr, some of which drew on non-textual modalities and showed increasing orders of complexity in linking up to my desiring-machine. In Figure 38 the model-bot deployed a series of unsolicited images. In the lead up to receiving these images, the time gap between my dialogue and that of the model-bot was at most a few minutes. However as I had not interacted with the model-bot for approaching 5 minutes, the images may have been an attempt to regain my attention by generating affective bodily intensities through images (Coleman 2013a, 2013b; Ringrose and Coleman 2013). The man shown in the unsolicited images was the same as the man in the profile image, however the origin of these images is unknown. The consistency in images gave the model-bot an air of authenticity. Had the images been of different men then the credibility of the model-bot would have been compromised. The images therefore acted as components of

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[36] Link not included in hyperlink analysis as it originated from a private interaction.

passage in attempting to make the desiring machine of the bot flow, changing the

capitalist assemblage into a pseudo-sexuality assemblage, and in doing so 'effectuate

particular [sexual] spaces and times' (Guattari 2011:138).

Figure 37: Screen captures of conversation with a model-bot on Grindr; Yellow/right hand side of screen = my response, Blue/ left hand side of screen = model-bot

(1)

(2)

(3)
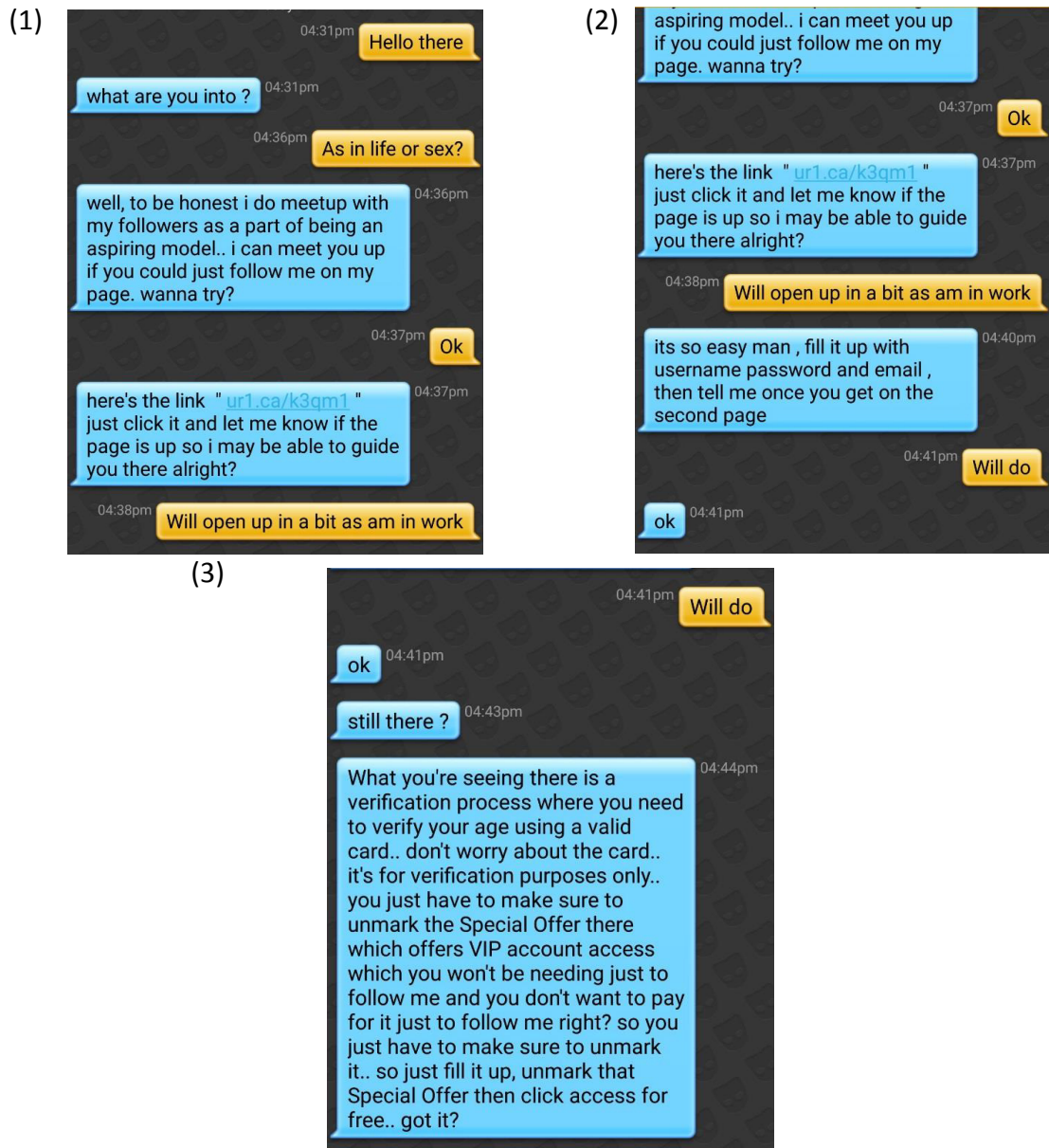
Figure 38: Example of model-bot deploying visual modalities
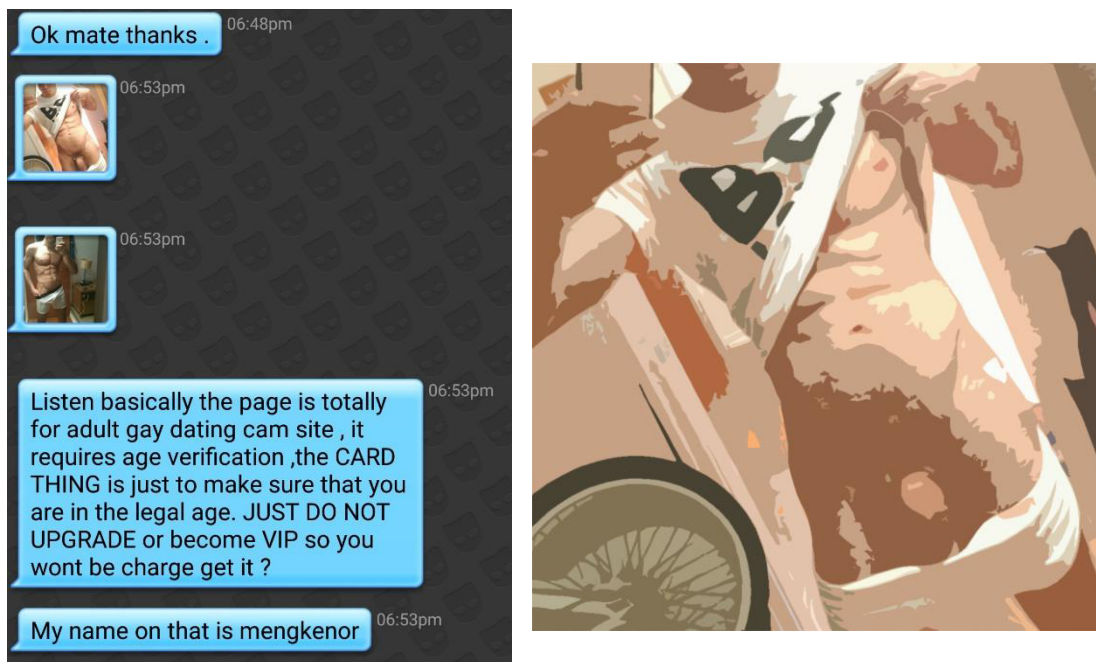
Using the meta-model, the machinic, and in this case mechanised production of sexuality can begin to be mapped out. Firstly bots tap into aesthetic domains through their deployment of the visual. Images of attractive men are used as profile pictures, or as seen in Figure 38 deployed during interaction. Using these images may have been an attempt to generate affective intensities within/through in my body, thereby drawing me in and sustaining my desire-energy. However these images also tap into the facialisation of the visual within "gay spaces". On Grindr, an approach from a man with a blank profile would be treated with suspicion: 'Send a pic, it's polite to see who's chatting' (Grindr, biography, 2016). In providing a face-picture, bots are able to tap into the universe of value placed on authenticity. However despite their machinic nature, the enunciations of bots must still pass through the domain of systems on Grindr. Profile pictures must therefore abide by the terms and conditions of use and not display any nudity or sexually explicit images.

In order to become instantiated in the real-actual, bots generate flows of words and things, in this case "sexual" language and images. In other bot scripts encountered during my engagement in these sites, overtly sexual language was used in order to spur on my sexual-desire energy. The following examples from my interactions with

model-bots, illustrates this bluntness: 'I've have [sic] a real huge dick dude. I love showing off', 'want to show off n fuck. Want to watch me play with my big meat??'. In addition to these overtly sexual flows of words, graphic images were used as in Figure 38. Images included pictures of men in various stages of undress, most posing to the camera. However more graphic images showed men with full erections, or bent over to display their buttocks. These flows of words and things parody a sense of sexuality that is overtly genital and lacking subtly. 'I have been working out a ton it makes me really horny' (Grindr, personal chat, 2013): in this example, like a line from a pornographic film, the bot stitches together aesthetic Universes of reference from pornography and media in order to approximate "the sexual". Regardless of their authenticity and effectiveness at duplicating actual-real sexy bodies, the examples of bots illustrates sexuality is itself a universe of reference that is drawn on by both humans and bots alike.

8.4 Conclusion: On the machinic production of sexuality

In this chapter I have addressed the final research question posed by my study, to explore the materiality of sexuality within MSM's digital sexual practices. Beckman (2013:36) states that 'Sexuality is a surface', meaning that sexuality is not limited to the biological or social, but occupies a liminal plane or surface. I have grappled with the slipperiness of sexuality as a surface through the fourfold meta-modelisation proposed by Guattari (2006, 2013). My first task in this chapter was to construct a meta-model specifically for MSM's digital sexual practices, drawing on all the empirical materials generated over the course of my study (Figure 28). The benefit of the four-fold diagram was that it allowed for the construction of a more contingent and complex model of digital sexuality than that produced by the Royal sciences – outlined in Chapter two and three.

It has been suggested by Wakeford (2000:411) that cyberqueer studies have the tendency to focus on identities and subjectivities. These belong to the realms of territories, being the subjective and embodied senses of home. However as the meta-model highlights, sexuality is present across the cultural, aesthetic, material, *and* subjective. In attending to these different instantiations of sexuality, the meta-

model takes seriously Deleuze and Guattari's (2000:293) statement, used to open this chapter, that sexuality is everywhere. Sexuality is an aesthetic; sexuality is a rule; sexuality is a flow; and sexuality is a style of embodied living. Having constructed a meta-model for digital sexual practices, my second task in this chapter was to deploy the model to analyse case studies of digital sexual practices.

The first study, into digital sexual compulsivity, illustrated how the meta-model, through its attention to the four fields of relations composing sexuality, shifts analysis away from being entirely in the mind, to also being in the body. The body of compulsive digital sexual practices is however an expanded body, and includes technologies, intensities, and other flows. The second case study, of camera performances, showed how sexuality overflows universes of reference and generates new ones. In the example of the drugged-sexy body, these are universes filled with intensities. I also illustrated the queer multiplicity that schizoanalysis opens up to, being the parts of the performance which may otherwise have been figuratively silent had attention been paid only to the signifiance of the body. The final case study linked back to commercial sex assemblages (Chapter seven), in order to explore the literal machinic production of sexuality that occurs when machines "do" sexuality. Regardless of the (un)successfulness of attempts to generate a sexuality, bots were shown to dip into the same virtual universes that fleshy bodies do when creating their digital territories. Furthermore this final example drew attention to the appeals to intensity and the way capitalisms power works through different modalities (Coleman 2013a:16), in order to materialise sexuality and hook up to desiring bodies.

Chapter 9 – Discussion

This study sought to explore the materiality of MSM's digital sexual practices, guided by the post human ontologies of Deleuze and Guattari (2000, 2005) and Actor Network Theory (Latour 2005). An adaptation of digital (connective) ethnography (Hine 2000, 2008) was used in order to follow the flows of concept-word-things and affects, as MSM went about generating erotic bodily intensities. By adopting a post human approach I intended to make a break from humanist studies that dominate the literature on MSM's digital sexual practices – highlighted in Chapters two and three. Furthermore, the complexities that post human ontologies help describe, enabled complexity to be actualised in the study of MSM's digital sexual practices. Enacting complexity was an important step given that research in other academic disciplines has highlighted the interconnectedness of digital media (van Dijck 2013). Broadly speaking, each of my empirical chapters was structured around a research question or interest, these being:

(1) <u>How can the materiality of MSM's digital sexual practices be researched through post humanism and a minor mode? And what does this different perspective bring to the study of these practices, and the practices themselves?</u> (Chapter five and six)

(2) <u>Does capitalism and commodification dam up, redirect, or indeed foster certain forms of sexual enunciation? And if so how?</u> (Chapter seven)

(3) <u>What forms does sexuality take as part of the materiality of MSM's digital sexual practices?</u> (Chapter eight)

In the first section of this chapter I discuss the findings from each of the empirical chapters (five to eight) in relation to my research questions – rather than taking the findings chapters themselves as answers to the questions posed. The driving force behind this thesis was the exploration of MSM's digital sexual practices differently, therefore this chapter considers the contribution that this thesis has made to the study of these practices – as a schizoanalytic undertaking. Different knowledge can lead to different practices of being and relating to the world (Malatino 2014). Therefore, my discussion will also highlight the implications of this novelty on policy and (research) practice. Finally I conclude this chapter, and this study, by considering

some of the limitations in using the minor mode, suggesting ways forward in addressing these.

9.1 Summary and discussion of findings

In adopting the framework of network-assemblages, Chapters five and six addressed an alternative reading of MSM's digital sexual practices. As noted in Chapters two and three, research into the digital sexual practices of MSM has tended to take a single practice or venue as the main focus of study. A minor mode, drawing on the framework of network-assemblages, decentred the practices under study as occurring within single venues, helping to reframe the materiality of MSM's digital sexual practices as connective. To an extent, the literature supports this finding that men use different media in concert, for example, as part of partner verification when arranging sexual encounters (Brown et al. 2005). However the use of certain social media as part of sexuality assemblages has not been addressed widely in the literature (see however Gudelunas 2012a). Chapter five illustrated the enrolment of social media into MSM's digital sexuality assemblages, with Twitter being central to flows through parts of the network-assemblage. Furthermore, in mapping out the complexity of networked sexual media, Chapter five helped to break away from preconceived notions of particular media as having essential qualities, instead showing them in their various becomings. Returning again to the example of Twitter, this media was found in commercial and sexual assemblages, thereby demonstrating the insertion of its communicative capacities in the generation of different functional assemblages.

In Chapter six I continued with a post human analysis of digital sexual practices, juxtaposing a Royal and minor mode directly in the production of knowledge about MSM's sex-seeking on Craigslist. I analysed the material-semiotic elements of MSM's sex-seeking advertisements as a relational network-assemblage of concepts, words, and things. Network Text Analysis (NTA) was used to explore emergent communities of highly interconnected concept-word-things. Many of the communities that NTA identified reflected categorisations and thematic concerns in the extant literature, such as those relating to sexual health and sexual preferences/acts. However the

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adoption of a network-assemblage framework illustrated unique associations *between* communities. These associations were less interconnected through the Royal approach to studying Craigslist, which explores sex-seeking advertisements as static aggregates of meaning – see Section 6.2 for an overview. Only associations that make *a priori* "sense" are likely to be explored through a Royal mode, guided by some theoretical interest, for example.

The network-assemblage of concept-word-things, particularly Figure 11 and Figure 12, provided for an initial foray into digital sexual practices, highlighting lines of flight and seemingly random associations. Diagramming meant that lines could then be explored in detail by going into the text. For example prior studies of Craigslist advertisements have coded for requests for discretion and sexual safety. My analysis found that these concepts formed part of a wider community that was strongly inter-related in terms of the structuring of Craigslist sex-seeking. Furthermore, by analysing the relationship between communities, I illustrated how different concept-word-things function together as part of the enunciative assemblage of MSM sex-seeking on Craigslist.

In Chapter seven I used assemblages as a framework to re-work digital commercial sex work. The first contribution of Chapter seven was in exploring the different influences of digital media on MSM's commercial sex, as an intermediary and as a mediator (Latour 2005:39). A minor method meant that rather than approaching commercial sex with *a priori* assumptions about what sex work activities would look like, the flows of sex and money opened up onto relatively under researched aspects of commercial sex. In his study on Internet sex work, McLean (2015:898) found that a number of his participants were actively solicited when using digital media e.g. as sex-seeking websites. It was hypothesised that the number of men solicited in this informal manner was greater than those who engaged in commercial sex professionally (McLean 2015:898). In my analysis of Craigslist, it was found that those men in the seeking category – who were soliciting for sex – accounted for roughly a third of the sex work corpus (Table 9), thereby supporting McLean's hypothesis. However it is worth noting that McLean's commentary was of Internet profile websites, and that the acts of solicitation occurred during private interaction

between men. Craigslist reflects a different socio-sexual assemblage, one that allows for public utterances of solicitation and its inscription within digital materiality. Chapter seven therefore partly contributed to the main research aim of this study, as the methods and analysis based around network-assemblages highlighted novel enunciations, which may have been silenced from a more strictly defined study of MSM's sex work (Law 2004).

In addition to illustrating the different perspectives that alternative ontologies can render, the second contribution of Chapter seven was in situating MSM's digital sexual practices within a particular historical mode of capitalism. As indicated in the theoretical refrain for Chapter seven, Deleuze and Guattari (2000, 2005), and subsequent post human theorists such as Braidotti (2013), link capitalism to a peculiar situation where personhood is acted upon by de- and re-territorialising forces. In terms of MSM's digital commercial sex, my findings show that the aesthetics and ideologies of capitalism (Callon 1998, 1999) come to affect digital sexual enunciations.

A market ideology pervades the architecture of cybersex performance websites, for example the grid of performers on Cam4, leading to competition and the formation of novel enunciations. Furthermore, the principle of market exchange was found to increasingly colonise different venues, leading both men and corporations to seek out ways of extracting value from digital presence. In Chapter seven I note that Cam4 and its users adopt different strategies to compress and stretch the intensities and sexual affect of viewer-users in order to extract value. My study has therefore added to the small and somewhat dated body of literature, focusing mainly on sex-seeking venues, that has explored the generation and manipulation of gay sexualities by corporations (Aslinger 2010; Campbell 2005; Light 2007; Light et al. 2008). Examples from Chapter seven and eight also provide an illustration of how capitalism and more generally power is intensive and can operate within and through different modalities; particularly the visual field, in the production of (sexual) affects (Coleman 2013a, 2013b).

In the final empirical chapter (Chapter eight), I directly addressed the nature of sexuality within the materiality of MSM's digital sexual practices, using a different

assemblage framework – Guattari's (2006, 2013) four domains. As indicated by Fox and Alldred (2013), sexuality as assemblage decentres the body and identity as the locus of sexuality. Sexual identities are recurrent throughout the literature of MSM's digital sexual practices (Chapter two). Despite this prominence, identities are one element in complex assemblages of digital sex that includes material flows of concept-word-things, systems, and aesthetic values and tastes. For example principles of exchange were found to colonise sexual practices, leading to an economy placed on authenticity, 'no pic=no chat', and affecting the types of sexual becomings that were enabled with and through digital media. The unique contribution of Guattari's four domains was in unpacking the more-than-human elements of MSM's digital sexual practices. Cybersex performances, for example, were viewed as multimodal assemblages of moving images, sounds, and text. However, rather than reading these modes as different elements in communicative action, a minor analysis drew attention to their intensive affective qualities (Coleman 2013a, 2013b). The guttural moans of the drugged-sexy body in Chapter eight were silent in a representational sense, but they affected the audience, myself included, and were therefore agentic – when moving away from thinking of agency in terms of being a human trait.

The final case study in Chapter eight, of computer algorithms (bots) doing sexuality, encapsulated all of the elements running through my findings chapters, and this study as a whole: connectivity, capitalism, and sexuality. Bots illustrate the channelling of desire and sexual affects into commercial sex assemblages, through the use of linkages. This case study provided a way of exploring the machinic nature of sexual enunciations, as composed of rules, flows, lived territories, and values. It also showed how capitalist flows between venues, in this case between Grindr and commercial pornographic websites, was generative of new forms of sexual enunciation that would not have occurred otherwise. Though this thesis has sought to make a methodological contribution to the study of MSM's digital sexual practices, in doing so it also made a substantive theoretical contribution to the topic under study, which I summarise in the following section.

9.2 Connectivity, Capitalism, and Sexuality: Final findings on MSM's digital sexual practices

The utopic claims made on behalf of the Internet translate into it being seen as a place-space driven by the freedom to explore sexuality (Ross 2005; Waskul 2006). However as highlighted by Buchanan (2007:para.29), the Internet, and I would also suggest digital media generally, is a mode through which capitalism extracts surplus value. Kreps (2011:697) articulates this same position more succinctly by stating that 'the Internet, including SNS, is in fact a continuation of [capitalist] practices and ideologies'. My findings have contributed to this position regarding capitalism and the Internet, showing that a profit principle is an active element in the sexuality assemblages that produce and are produced through many MSM's digital sexual venues – not just those that relate to commercial sex.

As stated in the conclusion to Chapter five, the network-assemblage of MSM's digital sexual practices (Figure 6) was striated by patterns of use. Furthermore, as elaborated upon in Chapter seven, these patterns of use were found to include MSM's own self-exploitative engagements in digital commercial sex. However striations came from the domain of systems and the design of venues, which were found to be heavily invested in flows of money. The example in Section 5.2.2 of an escort assembling media, including Twitter, in order to engage in commercial sex work, illustrates these double striations. Media were here formed into a particular functional assemblage by the escort. However this assemblage was itself subject to capitalist striations from the classified ad site, which charged viewer-users when contacting the escort. Like a Deleuzian rhizome, capitalism has therefore sprouted up through my discussion (Deleuze and Guattari 2005:7). Reading through Deleuze (1992:6), MSM's digital sexual practices could be situated within a 'disciplinary society' that seeks to assemble products, rather than control the means of production. Deleuze (1992) has implicated computerisation as being indispensable to this new mode of capitalism. My study has therefore fleshed out Deleuze's argument and applied it to a concrete socio-technical system.

Through incremental shifts in the architecture and design of digital sexual venues, website operators provide platforms for increased content generation – as seen in

the rise of Porn 2.0 (Mowlabocus 2010c). Users have therefore become the finished product, as well as being the means of production, and as a result independent labour has become a fiction. Furthermore, the connectivity of capitalism was found to effect a slow colonisation and striation of MSM's digital sexual practices into a platformed sexuality e.g. Grindr and Cam4's inclusion of social media linkages. However as observed throughout my study, MSM have found novel ways of circumventing these striations from the domain of systems, as well as producing novel digital sexual enunciations that incorporate connectivity.

Novelty was found to occur particularly where digital media behave as mediators that transform the social practices that incorporate them (Latour 2005:39) e.g. during cybersex performances. However even in cases where digital media were found to act as intermediaries of MSM's digital sexual practices (Latour 2005:39), the different machinic assemblages they then form have the *potential* to produce different enunciative assemblages. Again, from Chapter seven, Craigslist entered into MSM's commercial sex assemblages in place of offline methods of soliciting clients e.g. print advertisements. However because of the different machinic assemblage that composes Craigslist itself, and the model of capitalist realisation that the Internet reflects (Buchanan 2007), the enunciations produced were of a different kind.

To return to the metaphor of the rhizome (Deleuze and Guattari 2005:7), capitalism as a mode of assembling can sprout up on the surface of sexuality in hideous formations. The exploitative relations between corporations and cybersex performances found in my study are examples of these. However in the case of digital sexuality, capitalism runs through these practices, forming the current condition for the continued presence of "the Internet" as an infrastructure for these practices. Therefore at present, capitalism and many of the digital sexual practices observed in my study are indistinguishable from one another. This is not to suggest that capitalism is the only way of structuring the Internet and MSM's digital sexual practices. There will undoubtedly be more and potentially different formations of MSM's sexual practices to come. Furthermore, there are potentially some itinerant digital spaces for MSM that I have not been able to reach in my study. The method of "following flows" I adopted in this thesis, may not have detected those itinerant

spaces that were (intentionally) disconnected. Though this poses a limitation of this study, the minor mode's greatest strength was in challenging dominant modes of thought. It is this schizoanalytic potential of the minor (post human) mode that I address in the following section.

9.3 A schizoanalysis of MSM's digital sexuality research

Guided by the principles of a minor mode – following flows and generating difference – the empirical chapters of this thesis each form a different way into the event of MSM's digital sexual practices: as relational, as situated within current modes of capitalism, and as a more-than-human multiplicity. Guattari's (2006, 2013) meta-model can be used in order to summarise the schizoanalysis I have undertaken through this study in my engagement with all four domains (Ringrose 2015:400). Figure 39 shows the composition of the research assemblage as figured from a Royal and minor mode; or in the context of my study, between humanism and post humanism respectively.

The adoption of a minor mode was a conscious attempt to shift the universe of reference (U) away from the humanism that was identified as the central aesthetic running through the extant literature. Instead, the aesthetics of post humanism, specifically networks and assemblages (network-assemblages), were drawn on as a way of generating a new way of relating to and intervening in the material flows of MSM's digital sexual practices (F). I developed these post human aesthetics into a network-assemblage in order to draw on their strengths, to overcome each other's weaknesses. Assemblages brought a rich theoretical grounding to the perceived a-theoretical nature of networks (Borgatti et al. 2009:893). Networks however, were methodologically applicable, actualising in research practice the sometimes-bemusing array of post human relational terminology such as assemblages, rhizomes etc. (Green 2013).

In the domain of systems (Φ), a network-assemblage aesthetic was actualised in the form of a network sensibility (Markham and Lindgren 2014). Such a sensibility drew attention to the visual and relational elements of material flows, and entailed a more

open-ended engagement with the field through digital (connective) ethnography (Hine 2000, 2008). Moving away from the procedural application of the methodological rules that thereby avoid mess (Law 2004), the open-ended engagement with digital materiality instead allowed the field to expand and form in relation with the research-machine. Gerlach and Jellis (2015:136) put forward the view that academic disciplines are existential territories organised around a series of refrains. The adoption of post human perspectives helped to add different refrains or 'disciplinary motifs' to the field (Gerlach and Jellis 2015:136), and thereby extend the existential territories of digital sexuality research in several ways.

Figure 39: Schizoanalytic meta-modelisation summary of thesis

	Effect *Discursive/Actual*	**Affect** *Non-discursive/Virtual*
Possible	**Systems** **[Epistemology and Methods]** *Interviews, surveys, bounded field site, procedural correctness → ethnography, open field site, network sensibility* *(Φ)*	**Universes of reference** **[Ontology]** *Humanism, Royal → Post humanism, minor* *(U)*
Real	*(F)* **Matter-Energy** **[Events]** *Flows of words OR images OR bodies OR money → Flows of words AND images AND bodies AND money AND intensities*	*(T)* **Territories** **[Research]** *Research as closed → Research as open ended*

Utilised within this study, the network-assemblage ontology was an attempt to take the materiality of MSM's digital sexual practices seriously, as a subject/object of interest in its own right. In doing so it accorded the digital material a sense of agency and liveliness that was largely absent from humanist research accounts of MSM's digital sexual practices. Research territories were further extended through enacting connectivity and complexity through the methods used. This complexity in methods therefore reflected the complexity and connectedness of digital media that has been identified by researchers working in other disciplines (boyd 2011; Castells 2000; Terranova 2004; van Dijck 2013; van Dijk 2012). These moves were an important part

of a schizoanalytic approach, in evidencing something different within research accounts (Ringrose 2015:398).

Researching MSM's digital sexual practices through the lens of complexity required novel tools[37] in order to detect, enact, and amplify their elusiveness (Law 2004:14). The research-assemblage I deployed in this thesis therefore shifted from exploring digital sexual practices as definitive (isolated) sets of practices, the assumption of 'definiteness' (Law 2004:25); instead exploring them in relation to other things and always in process. For example the practice of performing self fellatio on Cam4 may be construed as, (1) the production of pornographic user-generated content; (2) as embodied sex work when interactions with paying members of the audience are taken into consideration; or (3) as wage labour when viewed within the context of the website that considers performers to be third party contractors. Research that starts with a predefined object of study (e.g. starts using a definition of what user-generated content is), may therefore miss the messiness of MSM's digital sexual practices. This is reflected in Figure 39 as the difference between the focus on research events in the domain of flows as a series of either/or elements (OR…OR…), to events as a series of interconnections (AND…AND…).

As Law and Urry (2004:404) point out, 'novelty is always uncomfortable' as it requires the alteration of academic habits in the development of new sensibilities. The conceptual leap involved in framing sexuality as an assemblage may be too far for some, as a departure from the more common anthropocentric view of the body and subject as the realm of sexuality (Fox and Alldred 2013:769). Although digital sexual practices are communicative and draw on representations, the minor mode adopted in this thesis drew attention to the potential affects that overflow the meaning and representation of words and things. Take the image of a bare behind on Instagram (Figure 9). Reading this image in terms of types of masculinity it portrays, perhaps says more about the mode of thought that researchers adopt, than how the image functions in attracting men. Similarly interpreting the same image as a token of

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[37] The extent to which the methods used in this thesis are themselves novel could be debated, drawing as they did on already established fields of research, albeit from those fields outside of the social sciences, for example hyperlink analysis from the computer sciences (Park and Thelwall 2003, 2005).

information, signifying the man's subservience or status as a "bottom", takes away some of the allure of the visual (Coleman 2013a:16). Although sexuality may be symbolic, it is also about the generation of affects. As Plummer (2003:525) puts it, sexuality is 'a lusty, bodily, fleshy affair'. Engaging with a post human onto→epistemological position therefore expanded the domain of flows to include intensities as materiality (Watson 2013:51), thereby acknowledging the very real capacity of intensities to generate affects in the formation of MSM's sexual territories.

In Chapter three I highlighted the process of mapping and following flows as a way of actualising post humanism as an epistemology (Φ). This epistemology was then realised by participating in flows and the materiality of practices through digital connective ethnography (Hine 2000, 2008). Deleuze and Guattari (2005: 372) juxtapose the Royal and minor as being practices that watch from the sides and jump into flows, respectively. This implies that the researcher becomes involved in the events and practices under study. However in this study, watching was to engage in the digital practices of MSM (as a man who has sex with men) because the practices being researched were themselves heavily invested in the act of watching and being watched.

Following also meant that rather than imposing a set of methods (systems) onto flows, the methods and analyses used in this thesis were generated in the interface between these two domains. However in addition to the flows of events and practices under study, flows composing the research process also affected methods. For example the decisions made when mapping links/hyperlinks and when conducting Network Text Analysis (NTA), arose from my sometimes-meandering engagement with literature from different disciplines. In this instance, I was moved by analytical approaches from the computer sciences and semantic analysis for their potential to generate networks of knowledge, or knowledge as networks. The minor mode therefore reflected an experimental mentality in the production of the new (Malatino 2014; Vannini 2015b), which contributed to the tasks of schizoanalysis.

As a schizoanalysis of MSM's digital sexual practices, this thesis has contributed to both positive and negative tasks. The negative task of schizoanalysis is to look for and

enact ruptures and breaks in assemblages (Ringrose 2015:406). Though the digital sexual practices of MSM are subject to heavy striations through the rigours of sexual identities, systems, and capitalist extraction, numerous points of rupture were found. For example the visual field was adapted in order to advertise sexual services, thereby circumventing online regulation of commercial sex. Furthermore by enacting complexity through methods, this thesis challenged aggregative Royal modes of thinking through these practices, or what Ringrose (2015:402) calls regulative discourses. In this study these were discourses of how research in the field of MSM's digital sexual practices gets done.

Alongside the negative task comes the positive task of schizoanalysis, through the perception and creation of conditions for something new (Ringrose 2015:406). My adoption of a post human approach to the study of digital sexual practices rendered perceptible the striations that regulate and constrain digital sexuality, as deviant/pathological/compulsive, for example, thereby allowing for new ways forward. In a Guattarian framework, this meant opening up onto new universes of reference, both in the study of MSM's digital sexual practices, but also in how the world – of policy, people, places – relates to these practices. As such, in addition to providing original empirical insights into the digital sexual practices of MSM, my findings also pose several policy and research implications.

9.4 Implications for policy and research

9.4.1 Implications for health interventions into digital sexual spaces

The network-assemblage map of digital sexual practices in Chapter five has both positive and negative implications for sexual health interventions operating within MSM's sexual venues. Examples of interventions include advertisements placed in gay specific venues for sexual health testing, or health professionals engaging in gay Internet chat-rooms, answering questions and acting as health educators (see Rhodes 2004). The network-assemblage of MSM's digital sexual practices illustrates the potential for sexual health interventions deployed in one venue to disseminate through networked media. Men follow links and hyperlinks into other sexual milieus and practices. As they flow through these venues men encounter sexual health

messages that may then influence their engagement with men in other venues. The finding that the architecture of a number of venues is increasingly incorporating social media illustrates the increasing inter-relatedness of the social and the sexual. Interventions intending to reach the most number of men could strategically use the connectedness of social media and the network-assemblage. For example safer sex messages deployed on Twitter or Tumblr, having higher centralities, would have the capacity to touch a number of different spaces and practices.

Grov et al. (2014:403), in the conclusion to their review of MSM's digital sexuality literature, state that more work needs to be done in order to track the diffusion of interventions. The creation of the network-assemblage map in Chapter five makes a first tentative step to help track such diffusion through interlinked media. However the network-assemblage (Figure 6) displayed some structure, rather than being an unstructured homogenous rhizome. Not all media were connected to all others, and sexual affect flowed in certain directions. The structure of the network-assemblage poses the negative implication for sexual health and its major irony. Internet Relay Chat (IRC) did not enter into the network-assemblage in the current study, however a number of sexual health interventions have operated in these venues in the past. Such interventions were therefore targeting a very specific, potentially isolated group of men. Alternatively, safe sex advertisements placed on Grindr may only reach those men using the app, given that Grindr was a hub with outward connections and was therefore not a venue where men pass through from other venues. My study therefore highlights the insufficiency of health interventions at reaching a wider MSM audience when only targeting specific, potentially rather niche venues such as IRC. A more rhizomatic approach to sexual health would be to provide general messages reaching the most number of *people*, thereby avoiding pathologising MSM and certain digital practices and venues as "risky" – a task the networked approach could assist in.

The network analysis of Craigslist sex seeking advertisements highlighted that sexual safety formed a distinct community of concepts drawn on by MSM when they engaged in sex seeking. For example men explicitly mentioned their sexual health status ('clean'), or that of their desired partners e.g. drugs and disease free, or 'DDF'.

This has bearing for sexual health workers in allaying fears regarding the effects of Internet sexuality, in demonstrating that sexual health is a concern for some of the men engaging in sexual activities with/through digital media. However, in addition to their sexual health, MSM were as concerned (if not more-so) with discretion and forms of social safety, and the genuineness of the men involved. Elsewhere within the digital sexual landscape of MSM, on Grindr for example, such requests for discretion are commonplace. It may therefore be the case that discretion, and being seen as a genuine person, are conflated with good or "healthy" sexual encounters. This has implications for sexual health workers and policymakers, as a discreet bareback encounter is a potentially "risky" sexual encounter; made all the more "risky" if it is assumed by the men involved that being discreet and genuine also means being free from sexual infections ('clean').

Sexual health interventions should therefore acknowledge that when arranging sexual encounters via digital media, other forms of safety are strongly linked to the discourses of sexual health. Focusing solely on sexual health at the deficit of the wider discourse of safety that MSM have seemingly constructed, may therefore prove ineffectual at curbing sexually transmitted diseases if MSM conflate an optimal sexual encounter with their social safety. However I would advocate comparative work with other sexual pairings, such as men who have sex with women, which may, I suspect, find a similarly queered version of sexual/social health enunciations online.

9.4.2 Implications for commercial sex work advocates and policy

In addition to those promoting sexual health amongst MSM, empirical findings, this time from Chapter seven, have relevance for practitioners working with sex workers. In *A Guide to Selling Sex*, produced by a charity working with sex workers, the foreword indicates that it is for 'men who work in the business, as well as men who may be thinking about doing so' (UK Network of Sex Work Projects 2008:1). However I found that commercial sex work for MSM was less a business, and more a temporary becoming – for example men propositioning each other on Craigslist and Grindr, or engaging in the self-exploitation of their sexuality via paid cybersex venues. Engaging

in digital commercial sex has become as simple as changing your status, with the example in Chapter seven being to select from a drop down menu on a cybersex website. McLean (2015) found a similar transiency to male sex work that was enabled by digital media. This ease of becoming commercial potentially leaves sex workers and the practitioners working with them in a quandary when they are increasingly becoming reliant on the legitimation of commercial sex as work, in order to argue for greater rights and protections for those who engage in it (Grant 2014).

Jones (2015a:564) warned that the rhetoric of accessibility and anonymity within studies of digital sex work hide other dangers that can still occur. Trolling and cyber-bullying are potential dangers for online workers, as well as attacks on authenticity from the pirating of their cyber-performances (Jones 2015a:564-565). However I also found performers experiencing moments of fatigue (boredom) and duress as additional dangers. This therefore highlights that although digital sex workers have greater latitude to exit a sexual scene because of the machinic assemblage of media, they are no-less vulnerable to coercion, particularly if they are dependent on their sex work as their primary means of income. The policy implications for sex workers from these findings relates to the protection of individuals engaged in independent sexual labour operating within digital venues.

To an extent, Copyright Law protects the product of performers as a form of user-generated content. However the labour that produces these sexual enunciations is having increasing demands placed upon it by the corporations who control digital sexual venues, with few external checks on these demands. For example the tipping feature on Cam4 was instigated in order to create 'new and exciting ways for people to interact' (Cam4blog 2010b:no page number). Though not all performers need engage in tipping, the act of tipping impacts on all men using Cam4 as it generates a climate of competitiveness within the grid of male performers. These micro-movements toward a market mechanism are Janus faced. The market may appear fair in the sense that value is determined externally, and previous studies with sex workers have indicated a preference for a market mechanism for this reason (Prasad 1999). However whether a market ideology is democratic, and therefore ethical,

through the gradual coercion of sexual enunciations within these venues under one regime of signs, is debateable.

9.4.3 Implications for post human sexualities (studies)

Through this thesis I have attempted to methodologically expand the field of MSM's digital sexuality research; therefore my findings have implications in relation to sexualities studies as they relate to MSM, and sexualities in general. Importantly it has demonstrated that alongside developments in digital media, MSM's sexualities increasingly involve technological networks. As with the example of sex work online, media may allow sexy bodies to do old things in new ways. More importantly however, the assemblage of bodies and technologies can produce completely different sexualities. For example, the cyber performance assemblages on Cam4 and other cybersex venues can lead to different ways through which bodies come into contact with one another; a mediatised form of 'touching encounter' (Walby 2012). Leading from my study, and others (see Race 2015a, 2015b), I would emphasise that any study of current forms of sexuality could benefit from exploring its technological machinic assemblage. This focus on technology is needed as they are ubiquitous in contemporary life, having the capacity to de- and re-territorialise what a body can do, not just in terms of the production of sexual affects (Fox 2012:181).

In my study I limit myself to the technologies of digital media; however technologies could be broadly defined as 'knowledge and use of tools and techniques to enable or enhance action' (Fox 2012:180, original emphasis). There is therefore scope for the inclusion of other forms of technology, or techniques, within sexuality research. For example, in Bell's (2006) study of "dogging", being the practice of public sex whilst under the pretence of walking a pet, the technological aspects of such practices were analysed. In Bell's work the technologies under analysis included mobile phones, text messages, cameras, videos, and the Internet, alongside other such things as condoms, and dog leads. The dog lead is a tool which can enhance actions in sexual/erotic ways whilst dogging, providing the pretence for being in a public place such as parks, at unsociable hours (Bell 2006). As this example shows, technologies

that are not in-of-themselves erotic can generate sexual becomings in their assemblage with bodies.

By examining body-technology assemblages, researchers can better begin to grasp post human forms of sexuality. However, thinking through these nonhuman sexualities can open up spaces to understand repressed sexualities in new contexts, for example the ways young people can derive (sexual) pleasures from music and dancing (Austin 2015). Additionally, drawing on my own findings, I would suggest that an important implication of understanding the nonhuman (technological) production of sexuality is that it has the potential to de-moralise understandings of certain risky sexual practices. Returning to the example of the drugged-sexy-body in Chapter eight, camera-drugs-bodies came together and generated pleasures in the man in/on the screen, and some of the audience members. Rather than pathologise the men who engage in such extreme sexual activities, a post human/affective approach can help in acknowledging the pleasure of engaging in such activities. Simultaneously it can also look forward to the ways engagements in such activities may or may not limit the body's future capacities to act in certain ways.

9.4.4 Implications for analysis

Aside from the topic specific contributions of my findings, this study may act as a guide for future researchers seeking to work with complexity as a form of analysis; particularly situational analysis (Clarke 2003, 2005). In the conclusion to Chapter six I indicate the utility of NTA as an alternative to grounded theory (Glaser and Straus 1967). Clarke (2003, 2005) proposed situational analysis as a development of the grounded theory approach, to incorporate mapping as a way of analysing the complex relations between conceptual units. The mapping of links and NTA conducted in Chapters five and six respectively, illustrates a development and systematisation of situational analysis. The network-assemblages that were generated in this study were a way into the data, and also became data to be analysed through SNA methods – see also Banks' (2013, 2015) object-relation mapping which achieves similar ends. Furthermore, the networked approaches I deployed in conducting NTA and link analysis generated visualisations that could be

used in presenting the analysis, rather than being one step in the analytical process before being converted into extended prose. As Gerlach and Jellis (2015:141) point out, cartography that negates the production of maps 'is just pure heuristic'. It is this last point that illustrates the potential for future researchers to bring a network sensibility, focusing on movement and visualisation, into dialogue with situational analysis, in order to analyse and visualise relationships between human and non-human entities.

Although Clarke (2005:303) was pessimistic regarding the utility of computer assisted situational analysis, computerisation may mean that future analyses can be of greater complexity than the thought maps deployed by Clarke. Computer assisted situational analysis, drawing on my study and similar network analyses (e.g. Banks 2013, 2015), would mean that the relations and concepts would not need to be reduced before being amenable to mapping, with the result being that a greater number of elements could then be mapped.

9.4.5 Implications for research methods

The drift and entanglement of ontology with epistemology (onto→epistemology) I perform in this thesis has implications for conducting minor research more generally. The use of a minor mode would help to shift academic fields that are entrenched within particular modes of study. It also has the potential to re-shape the relationship between research-events, as well as the events themselves (Fox and Alldred 2015a). In a subsequent publication (Thomas 2016), I propose that a minor mode could be applied to sexuality education research. Here, I identified research into young people's sexuality education as having strong humanist antecedents, leading to methodological practices where the more-than-human was relatively absent. Similarly Ringrose (2015), and Ringrose and Coleman (2013), have adopted schizoanalysis and mapping to the fields of gender, sexuality, and education, as a way of working with/through feminist desires to 'push back and through binaries and dualisms' (Ringrose 2015:394).

The minor methodological approach I have forwarded in this thesis marks an original contribution to the largely humanistic studies of MSM's digital sexual practices. In making this contribution, I have also added to the general body of literature that draws on post human, new materialist, and non-representational methods (see Fox and Alldred 2015; Taylor and Hughes 2016; Vannini 2015b). There are, for example, touching points between the minor mode underpinning my thesis and Baradian studies that use diffractive readings (e.g. Levy et al. 2016; Taguchi and Palmer 2013; van der Tuin 2014), in that both call for researchers to think about/with data differently. A minor method also shares similarities to Coleman's (2008b) call for 'intuition' in research. Drawing on Bergson (2004), Coleman (2008b.110) suggests that intuition was the method/practice of exploring objects in their uniqueness, without reducing them to their resemblance to other objects. An appeal to intuition, it was hoped, could lead to different ways of practicing social research. Though I have not drawn parallels between this conceptualisation of intuition, I share in its common yearning for difference in practice, by acknowledging the performative nature of research.

Linking back to my rationale for using relational methods to study networked practices (see Section 1.3), this thesis adds to the body of theory on the performativity of methods in generating social (scientific) worlds (Barad 2003, 2007; Law 2004; Law and Urry 2004). Specifically, I have illustrated one way of using this performativity to stage a different kind of research encounter, in order to generate an account that enacted particular relational worlds. For example the NTA method of analysis outlined in Chapter six enacted a relational reading of digital materials that did different things with the data, than say content analysis or others forms of iterative analysis/theory building. Similarly, my deployment of a "nomadic" digital ethnography that followed movements (linkages) between digital sexual practices and venues, enacted the networked nature of digital practice as method.

A departure point between the post human studies highlighted above and my thesis is my focus on artefacts. In this regard, my thesis shares similarities to strands of ANT and object orientated ontology inspired research that "speaks" to artefacts (e.g. Adams and Thompson 2011; Thompson and Adams 2013). However there has been

a recent flurry of research working post human theory through digital research and practices (e.g. de Freitas 2016; Dixon-Román 2016; Hayles 2012; Latour et al. 2012). My thesis adds to these digital post human studies, moving beyond the theory, into the practical application of post human ontology-informed-epistemology, to research practice. In doing so I have illustrated the potential contribution that the digital humanities can make to different ways of knowing; something which Braidotti (2013) has acknowledged, but has not yet been widely applied in empirical research.

However the human subject, such as it is within a post human framework, was not evacuated from my thesis, though it did take a far less central role as the 'proper ontological unit for enquiry' (Mazzei 2016:158). As I discuss in the initial overview for this thesis (Section 1.1), my orientation to digital sexual practices was an integral part of how they were constructed and analysed as a phenomenon to be studied in the first place. Along somewhat similar lines, Hultman and Taguchi (2010), and Taguchi and Palmer (2013), drawing on Barad's diffractive approach, seek to challenge anthropocentrism in research practice by illustrating the ways data and researchers are worked upon by one another. My call to dwell with the nonhuman was therefore, I feel, an inventive aspect of my method within this particular research context – though potentially not inventive from the perspective of research in other fields.

My research-assemblage drew on a wide range of disciplines, and was therefore not truly inventive of methods. However as Wiles et al. (2010:2) state in their analysis of innovation in social science, innovations have 'the potential to make an important contribution to qualitative research practice'. Fox and Alldred (2016:78) put this more decisively, in stating that creativity is an 'engine of social change and development'. Drawing on these arguments, I would suggest that future researchers should not be afraid of appearing faddy by making appeals to innovation/inventive methods. Ethically, there is more at stake and much to be gained if inventiveness of methods has the capacity to alter the phenomena/problem being studied (Lury and Wakeford 2012).

Fundamentally my thesis paves the way for future research in the turn to ontology, in the generation of a less imperialistic (minor) science (Lather 2016:129). Specifically, my usage of quantitative methods (SNA and NTA) to analyse qualitative

materials (linkages and concept-word-things) is an example of a productive connection between qualitative and quantitative research, a task that Lather (2016) commends. Furthermore, by engaging with visualisations as ways of analysing digital materials I demonstrate different ways of reading, something that Hayles (in conversation with Potzsch) indicates has the potential to open up avenues for research in the Humanities and social sciences (Potzsch and Hayles 2014:101). I would invite researchers working within post human/new materialist frameworks to play with the relational methods deployed in this thesis, or simply dwell on the thing-ness of objects, as part of the research-assemblage, in order to explore what different ways of knowing this may produce.

The wider applicability of the minor mode to other areas of study owes to it being a style or aesthetic of researching, rather than prescriptive set of methods (Vannini 2015b). My empirical materials were therefore, to an extent, a case study in the application of a minor mode. The Craigslist sex-seeking advertisements analysed in Chapter six could be substituted with any number of research materials, for example documents or interview transcripts, in order to explore the relations across and between these materials. Though the NTA method works with textual data, any material that can be converted or coded into text can therefore be used. For example Computer-Assisted Qualitative Data Analysis package NVivo can be used to produce matrix-coding queries that result in co-occurrence data – which are in essence the foundations of network diagrams. The NTA method and that of mapping relational entities can therefore be used to undertake an analysis of codes and thematic co-occurrences, rather than word co-occurrences as I used in this study. For example images, or elements within images, could be coded and visualised as a network. However it should also be noted that the methods and analysis used in this thesis are just one actualisation of a minor mode in research practice. Due to the singularity of a minor mode, the methods and tools I deployed in this study will need to be experimented-with with each new application (Gerlach and Jellis 2015:139).

Though the adoption of a minor mode had implications for the study of sexual health and sex work, these arose out of following flows rather than a directed effort to explore these specific areas. Therefore the greatest analytical strength of the minor

mode, its fluidity, also poses its main limitation, in that it makes it difficult to pin down to specific policy areas. Limiting the focus of research from the outset aggregates the event under study, and in doing so increases the potential for research to fall into a Royal mode. For example by focusing on sexual health online through frameworks of health promotion and risk, this may have occluded other ways of thinking sexual health and safety online, such as those highlighted in Chapter six. Having drawn attention to the limitation of the method in general, the following section discusses the limitations of the current study specifically, whilst also indicating ways forward in addressing these in future research.

9.5 Limitations and ways to address these

Whilst my study has provided novel insight into the materiality of MSM's digital sexual practices, the experimental mentality I adopted meant that there were inevitably some limitations. The starting point for my data collection was from three venues: Cam4, Craigslist, and Grindr. The network-assemblage that formed the focal point for my discussion in Chapter five was therefore a partial map of the sum of all possible pathways. The absence of IRC, noted earlier, may be an artefact of the isolation of communicative practices on IRC, or of the method of mapping adopted in this study. Furthermore, due to the emplaced nature of Grindr (Blackwell et al. 2015), the particular linkages observed and followed in this study may have been location specific i.e. they may be specific to the offline sexual milieus of Wales/South West England. Future research starting from alternative sites, both on/off-line, may produce different network-assemblages. Rather than being an impasse to representativeness in future research, this emplacement could be used tactically to generate maps suited to different research interests. Sexual health interventions, for example, may map out the venues linked to their primary delivery points, in order to explore the potential reach of their particular utterances. Alternatively, studies could explore further the different patterns of digital sexual linkages between men located in different "real world" geographies.

Related to the partiality of my network-assemblage maps was also their time-specific nature. As highlighted by Grov et al. (2014) in their review of MSM's digital sexuality,

technological change has resulted in shifts in digital sexual practices. Furthermore, Chapter seven situated digital sexual practices within a specific historical mode of capitalism. The analysis and interpretations presented in this thesis are therefore one particular snapshot of MSM's practices. During the course of writing-up, the media being studied changed. For example Grindr and other app-based venues added new features, whilst there continued to be an on-going profusion of digital media as new apps and websites were developed. Future research may therefore highlight different media and associated practices, as others fall out of use – as may have been the case with IRC. However these temporal aspects could be incorporated into future studies in order to explore whether and how the model of connectivity that has turned networks into a marketable commodity (Kreps 2011:697), continues to colonise future forms of MSM's digital sexual practices.

In addition to the digitally, geographically, and temporally emplaced nature of the maps produced within this thesis, methodological choices posed further limitations to the affect flows through the research assemblage. Though digital ethnographic observation has been extoled by Hine (2011) for its affordances in unobtrusively generating materials, as Madsen (2012:42) notes, this does not mean that the researcher is distant within the research process, or that the materials generated are objective renderings of reality. I fully acknowledge that design choices were intentionally used in the current study to structure affect flows within the research event assemblage, and therefore achieve the micro-political goals of undertaking a minor analysis (Fox and Alldred 2015a). The decision to use NTA over other forms of network analysis of textual data was a theoretically informed decision, in order to explore the structuring/functioning of advertisements, rather than simply the co-occurrence of concepts anywhere within them. Furthermore, choices made when setting the parameters for NTA rendered a particular map of associations between concept-word-things. Sensitivity testing indicated that the most prominent relationships between concept-word-things were broadly consistent. A different study using a different theoretical perspective and parameters may find slightly different associations. However this is the nature of studying events in their singularity, as each rendering through research produces a slightly different result.

Despite having micro-political goals to embrace mess and complexities, this study still enacted certain analytical silences, something that Law (2004:116) suggests is necessary as part of any research process. These silences aid in producing and simultaneously distinguishing signals and noise within research encounters (Law 2004:116). As indicated at the start of this thesis, I have not attempted to rethink sexuality beyond the "explicit". Instead my intent was to enact a methodological interruption in the aggregative approach to studying the materiality of MSM's digital sexual practices. Starting from this particular standpoint of what constitutes sexuality enacted silences. Alternative methods that incorporate the human subject would open up the analysis to explore a wider definition of sexuality – see for example Austin (2016) and Fox and Alldred (2013) for more affective definitions of sexuality as intensive bodily forces. In order to bring the subject – as an assemblage – into the network-assemblage, the object-relation methodology of Banks (2013, 2015) could be used. Drawing on elicited data with MSM would help flesh out the domain of territories and lived experiences, thereby exploring in their actuality how men's bodies become captured and fixed by their engagements with digital media (Ringrose and Coleman 2013). In addition to changing the definition of sexuality underpinning digital sexuality research, incorporating the subject would enable future research to explore fully Guattari's (2013:1-2) double bridge between humans and machines, or the ways in which machines are inserted into subjectivity, and vice versa.

Though the use of ethnography of digital venues enabled for a greater understanding of the interrelationship between practices, this labour intensive method posed a limitation to the forms of analysis that could be conducted. For example the manual coding of linkages deployed by MSM meant that the network-assemblage reflected the public face of their sexual practices. Though insider-ethnographic materials from my own engagements in some of these practices supplemented observations, future research may wish to recruit a number of MSM, asking them to provide their own accounts/traces of their technology usage – be these screen captures of media sessions, Internet browsing histories, or accounts of media use through elicitation and diary methods. In doing so future research could combine the methods deployed in my study with those of Banks (2013, 2015), thereby gaining an understanding of

both the public and private face of MSM's digital sexual practices. Relatedly, future research may seek to use computer aided link detection to explore embedded hyperlinks (Ackland 2013). The use of such automated means of data generation could greatly expand the scope of the current endeavour, increasing the potential number of points of entry into the network-assemblage, and thereby enable random sampling of linkages. Furthermore, hyperlink analysis would enable future research to account for linkages created by MSM *and* those of corporations through the advertisements that heavily suffuse digital media, all of which generate and divert sexual affects in different directions.

9.6 Endings

In this thesis I have outlined the process and findings from a post human analysis of the digital sexual practices of MSM. Deleuze and Guattari (2005) offered a way of framing the extant literature on MSM's digital sexual practices in epistemological but more importantly ontological terms, as aligned to one particular way of doing "science" – Royal science. They also offered a theoretically informed vocabulary for translating an ontology based on complexity into an epistemology based on following flows – minor science. The direct comparison of knowledge produced through a dominant (Royal) and minor mode in Chapter six highlighted some similarities. The benefit of a minor approach emerged in its ability to generate different ways into the study of phenomenon, resulting in several points of distinction between a Royal and minor study of the materiality of MSM's digital sexual practices. A minor mode draws attention to non-human materiality in the production of erotic affects. This attention to the non-human is particularly important in the study of digital sexual practices, where digital materiality comes to shape sexual enunciations as both intermediary and mediator (Latour 2005:39). In thinking through digital sexual practices as material and agentic in the production of sexual affects, this opened up spaces of analysis that may have remained relatively silent had attention only been paid to representation, meaning, and signifiance.

Though these differences were important affective forces from conducting minor research, the ethico-political intentions of a DeleuzoGuattarian framework formed

the main appeal of a minor mode. As Mullarkey (1999:70) states, understanding the functioning and nature of the inter-relations between bodies is part and parcel of this ethico-politics. This could be interpreted as meaning that the outcomes of such research are ethical in the sense that they lead to new and more 'joyous' connections (Mullarkey 1999:70). As this study has primarily been methodological, in re-imaging one particular facet of MSM's digital sexuality research, it could be argued that it has not yet achieved its full ethico-political potential. Examining the 'missing dimension of subjectivity' (Ringrose 2015:393) of MSM generating the materials explored in this thesis would add to these ethico-political goals by highlighting productive connections. What I have illustrated however is that a focus on complexity and flows when researching (social) phenomenon is open to the different connections that research may make, and is therefore a more efficacious approach to social research by not closing down avenues of exploration.

The positive and negative tasks of schizoanalysis produced through a minor mode reflects what Ringrose (2015:406) refers to as a 'transmogrified mix', working to 'reconfigure what research is and can look like and what it can do'. However here it is worth reiterating Deleuze and Guattari's (2005:372) own words when they state that such an approach is 'Not better, just different'. The minoring of MSM's digital sexual practices in this thesis offered different ways of apprehending the world. Whether this different knowledge leads to truly ethico-political outcomes can only be judged in the application of this study and my findings to concrete practical situations and future research practice; and therefore whether it has the capacity to generate new assemblages, or close down others. However the main methodological contribution of my thesis – how to enact post humanism in research – will hopefully be a spur to future experimentation with complexity and network-assemblages in empirical social science research.

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Appendix A – Enumerating the MSM population

This appendix provides a selective summary of research enumerating the MSM population. The aim of this review is to provide some situational knowledge regarding the size of the potential population from which this study drew. However some of the digital sexual practices explored were not constrained by geographical boundaries. For example during observations within paid cybersex venues it was found that many of the performers were from outside of the UK – Chapter eight gives the example of a male performer in Germany. Attempting to enumerate a hidden and ever-changing population on a global scale is a difficult if not impossible task. This appendix is therefore for interest and reference, rather than for contextualising the nebulous population of this study – and has therefore been consigned to the appendices rather than the main body of text.

A.1 How big is the MSM population?

The Health Protection Agency (2011:4) estimated that in 2010 there were approximately 850,000 MSM aged 16 and over in the UK. This is only indicative of the scale of male same sex sexuality given the multiple ways in which MSM can be defined. Taking three studies working within health related disciplines, Evans et al. (2007), Dodds et al. (2006), and the aforementioned HPA study, these have used slightly different definitions of MSM. Within these studies, MSM were defined either by same sex sexual practices/acts and or attraction, or identity. However comparing studies which have used the same defining factor, sexual acts for example, there are variations in the timeframes over which homosexual acts are taken as valid; acts in the past year in Evans et al. (2007) and in the past five years for Health Protection Agency (2011). As Coxon (1996:17) highlights, 'prevalence estimates of 'homosexual men' can be made to range... by successively relaxing the criteria of the type of sexual contact and the time-period of the sexual involvement'. There are therefore inherent difficulties in enumerating the MSM population, even when a common factor of what constitutes same-sex-sexuality is used.

As an example of the difficulties in enumerating hidden populations, drawing on the Natsal survey series, which is the main survey of sexual attitudes in the UK, the percentage of men in Great Britain who were MSM varied within any given survey year, dependant on the timeframe for sexual activity (Table 12). For each survey year the upper percentage in Table 1 relates to *ever* having had same sex contact, whilst the lower relates to same sex partners in the past 5 years. Furthermore, by altering the definition of sexuality used, to focus on those experiences where genital contact was had, then the percentage of men reporting such experiences falls in between the two extremes. Though this provides a possible range for the prevalence of MSM practices, the Natsal series suffer from small samples of MSM; for example reported at 117 individuals in the Natsal 2000 after weighting for sampling probability (Evans et al. 2007). This is an in insufficient sample size with which to explore the sub-cultural practices of MSM. In order to undertake such analyses, community and self-selection based samples, for example of individuals attending gyms, bars or MSM specific websites, have been variously adopted - in the UK see for example Dodds et al. (2004), Elford et al. (2004), and Williamson et al. (2008).

Table 12: Percentage of men who were MSM reported in National Surveys of Sexual Attitudes and Lifestyles (Natsal), by definition of MSM used and Natsal survey year

	Per cent		
	NATSAL 1990	NATSAL 2000	NATSAL 2010
Any sexual experience or contact with partner of same sex	6.0	8.4	7.3
Any sexual experience with genital contact with partner of same sex	3.6	5.4	4.8
At least one same sex partner in past 5 years	1.5	2.5	2.9

Source: Reproduced from Mercer et al. (2013:1789), Table 4

A.2 Other sources of nationwide sexuality estimates

The Natsal survey series are commonly used to provide national MSM population estimates in the UK, however there are other national surveys which have included aspects of sexuality, and allow for estimations of the lesbian, gay, and bisexual (LGB) identifying populations. Aspinall (2009:59) has evaluated a number of these national and local estimates of the LGB population in the UK, finding that estimates range

from 2.0 to an upper estimate 7 per cent of the population. Despite these alternative sources for enumerating sexual populations, Aspinall (2009:59) concludes that there are still no reliable estimates on the size of the LGB population, given that these surveys have not been designed to provide national estimates.

In a separate comparative analysis, this time limited to household surveys in the UK, Joloza et al. (2011:16) found that the national LGB population varied between 1.1 and 2.4 per cent, with this variation having been attributed to differences in survey designs and question wording. Taking the largest of these studies, the Integrated Household Survey with a sample size of roughly 420,000 individuals, the gay male and bisexual identifying population was estimated to be 1.7 per cent of men in the UK in 2010/11 (Office for National Statistics 2011:3). This is roughly half the estimated 3.4 per cent of men who were MSM cited by the Health Protection Agency (2011). The primary reason for this difference may again be definitional. The majority of national sample surveys outside of the Natsal series have attempted to enumerate sexual identity, as opposed to sexuality in a broader sense. A recent survey conducted by YouGov (2015) has however attempted to enumerate the sexuality of the UK adult population using a Kinsey scale, which views sexuality on a continuum rather than as a binary classification (Drucker 2010). The Kinsey scale incorporates both feelings/desires as well as behaviours, in order to produce a multi-dimensional index of sexuality (Drucker 2010:1116).

Within the 2015 YouGov poll (N= 1,632), respondents were asked to rank themselves on a scale of 0 to 6 – 0 being completely heterosexual, 6 being completely homosexual. 68 per cent of male respondents indicated that they were completely heterosexual, compared to 8 per cent at the opposite end of the spectrum who indicated that they were completely homosexual. These findings therefore suggest that 24 per cent of the survey sample lie in between the extremes of heterosexuality and homosexuality, and that potentially 32 per cent of the male population would be open to an MSM experience. This is further supported by the findings from the same survey that 20 per cent of the male survey respondents had had a sexual experience with a member of the same sex. As the number of people reporting they were exclusively heterosexual increased with age, then it may be that there are

generational effects on MSM sexuality – or at least generational differences in the willingness to express such practices within the context of a survey. Data from the Natsal surveys, Table 12, may support generational changes, given that the proportion expressing potentially homosexual encounters increased between Natsal 1 and 2, but seems to have plateaued – maybe reflecting somewhere near an "actual" proportion of MSM.

A.3 Some conclusions on the size of the MSM population

The MSM population in the UK may range somewhere between 1 per cent and anywhere up to 20 per cent of the male population. This range varies dependent on how MSM are defined. For example if MSM were defined as any man who placed themselves on the Kinsey scale anywhere other than completely heterosexual (YouGov 2015), then the estimates will be far greater than those who have engaged in same sex sexual activities in the previous 12 months (Mercer et al. 2013). What can be said with some level of certitude is that the percentage of the population who have had some form of male same-sex sexual involvement has never been zero. Furthermore, as indicated by the Natsal survey series, there appears to be either an increasing proportion of MSM in the male population, or at the very least an increasing propensity to disclose same-sex sexual practices. It could also be suggested that given the opportunity to express their sexuality using more multi-dimensional and complex means, survey respondents are more likely to demonstrate greater ambiguity regarding their sexuality – as seen in the high proportion of men who could be classified as MSM when the YouGov (2015) poll used a Kinsey scale. It is worth reiterating however that providing these estimates is meant to be indicative rather than definitive. For the purposes of this study, the very definition of sexuality is at stake within a post human framework (Fox and Alldred 2013). When sexuality is decentred from (human) bodies, this makes the task of defining MSM at best difficult, and at most impossible.

Appendix B – Who are the MSM engaging in digital sexual practices?

This appendix provides an overview the demographics of MSM engaged in digital sexual practices. This study was primarily methodological, therefore the main literature review chapter (Chapter two) is dedicated to discussing the methodological approaches to studying the materiality of MSM's digital sexual practices. As illustrated in Section 2.5, there are a number of digital sexual practices. Rather than attempt a cursory overview of the demographics of MSM engaged in all possible practices, the following discussion focuses primarily on practices of sex-seeking e.g. the use of profiles and mobile sex applications. Given the relative novelty of some forms of new media practices, these have yet to diffuse into mainstream academic research. In contrast, the literature on MSM's digital sex-seeking is extensive, possibly owing to fears that such practices are of heightened risk and are therefore rife for study in order to curtail such risk.

The purpose of this discussion is to disentangle who engages in digital sex-seeking. However as with the task of enumerating MSM (Appendix A), attempting to definitively comment on the population of MSM engaged in digital sex-seeking – for example defining their essential qualities – is doomed to contradictions. Furthermore the task of defining, or setting limits, is itself antithetical to the post human project that my study set upon, and that seeks to open up possibilities rather than closing them down. The following discussion is therefore for reference and any conclusions drawn from it are made with caution and copious caveats. I start off by exploring the prevalence of Internet based sex-seeking amongst MSM, before going on to explore its translation into mobile phone applications, and some of the patterns of usage and demographics of the men engaged in such activities.

B.1 Prevalence of Internet sex-seeking

In terms of sexual contacts on the Internet, it has been estimated that the percentage of MSM that use the Internet to *look* for sex partners is roughly 40 per cent, whilst

roughly 30 per cent have actually had sex with partners found online (Liau et al. 2006). These figures represent weighted means derived from a meta-analysis of published studies, mainly of UK (London) and US bas men who were recruited offline. Estimates were significantly higher for MSM recruited from online settings, with 85 per cent having used the Internet to look for sex. Liau et al. (2006) indicate that studies using offline recruitment were less prone to sample bias and were subsequently more representative of the MSM population. This bias arises because sampling online from sexual venues means that the men in these studies are more likely to already be users of such venues by virtue of being in the sample. The conclusion of Liau et al.'s (2006:583) meta-analysis was that the studies reviewed did not present compelling evidence that the Internet had increased sexual risk behaviour. However such is the enduring quality of the Internet as a catalyst of "risk", Liau et al. (2006) still draw attention to impacts of the Internet on sexual risk – despite their own evidence to the contrary.

In community surveys with MSM conducted in Australia (Lee et al. 2012; Hull et al. 2012, 2015), the percentage of MSM using the Internet to look for sex was similar to that identified by Liau et al. (2006). Taking the latest of these surveys from 2015 (N = 2,053), 31.6 per cent of MSM had used the Internet to meet male sexual partners in the last six months (Hull et al. 2015:16). Given that these surveys were conducted roughly a decade after the most recent study reviewed by Liau et al.'s meta-analysis, this suggests that the percentage of men using the Internet to look for sex has plateaued. It may also indicate that the proportion of MSM using the Internet for sex-seeking is internationally similar – at least between the US, UK, and Australia. Bivariate statistics of the Australian data supports the conclusion that Internet usage has plateaued, given that between 2014 and 2015 the percentage of men having met partners via the Internet had decreased, but did not change significantly (Hull et al. 2015:16). I use plateau here, which implies a period of increasing use, as this has been suggested in prior studies. For example survey data in the UK indicated that men were twice as likely to use the Internet in 2001 compared to

1999[38](Weatherburn et al. 2003:14), possibly representing the diffusion period of Internet use. Furthermore, studies of where people met their partners have illustrated a sharp increase in the use of the Internet during this diffusion period, with this trend being particularly prominent for same-sex couples (Rosenfeld and Thomas 2012). Against the evening-out of Internet sex-seeking, there has been a significant increase in the use of mobile phone enabled applications, and it is use of these apps that I will now examine.

B.2 Securing sexual contacts on mobile phones

Grindr, the main mobile phone enabled sex application observed as part of my study, was launched into the MSM sexual marketplace in 2009. Given this recent introduction there is a paucity of academic research concerning use of this and other such mobile-geospatial applications, particularly in the UK. An online survey undertaken by Gudelunas (2012b:10) in the United States, as part of a multi-method study, found that younger age groups were more likely than older ones to use gay specific digital media (90 compared to 72 per cent). However qualitative data found that it was the younger men in Gudelunas' study who more commonly used mobile-geospatial applications. In a further study by the same author, of gay men's social network use, 'the ability of an application to function both at home on a computer and outside the home on a mobile device was seen as key' (Gudelunas 2012b:11). One academic area which has been particularly concerned with the implications of mobile-geospatial applications has been within epidemiology, with all of the studies reviewed here originating from health fields within the United States.

A survey of young MSM in California, administered via Grindr (N=195), found that roughly three quarters (75 per cent) of survey respondents had ever had sex with a partner met on Grindr (Rice et al. 2012:4). Furthermore the majority of men used the

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[38] This represents use of the Internet not limited to sex seeking hence their survey recorded a higher percentage of men using the Internet on this particular measure, 60 per cent. However a subsequent measure based on sex seeking found the Internet was used by between 36 to 75 per cent of men dependent on the method of data collection used (Weatherburn et al. 2003:14-15). The lower estimates were found in samples using offline recruitment methods, similar to the studies reviewed by Liau et al. (2006).

application more than once a day (78.4 per cent), with a high percentage of men using it more than 5 times per day (49.7 per cent) (Rice et al. 2012). A separate study using administrative data from MSM clients attending an LGBT advice centre in Los Angeles (N = 1,337), found that 13 per cent of men in their sample used mobile-geospatial applications, or what they term geosocial networking (GSN) mobile applications (Beymer et al. 2012). In support of Gudelunas' (2012b) qualitative inferences, younger age groups in Beymer et al.'s (2012) study were significantly more likely to use GSN applications compared to older groups.

In terms of the prevalence of using GSN applications amongst the wider MSM population, surveys of gay sexual lifestyles conducted in Australia have found that between 2011 and 2015 the use of apps to meet sex partners increased from 22.9 to 46.0 per cent (Hull et al. 2015:16). Furthermore, these increasing trends in use placed mobile "sex apps" as the most common place for Australian MSM surveyed to have met sexual partners, after the Internet at 39.3 per cent of men in 2015. Mobile applications have overtaken the Internet as a place to meet men, beginning in the 2014 survey (Hull et al. 2015:16). This is in contrast to use of GSN applications cited in the American study above, at 13 per cent (Beymer et al. 2012). These discrepancies are potentially due to different recruitment sites. Beymer et al. (2012) recruited from a single LGBT advice centre, whilst Lee et al. (2012) recruited from a range of LGBT community sites. This later study is therefore more likely to be representative of the MSM population's use of GSN applications – albeit in Australia.

B.3 Demographics of digital sex-seeking MSM

Rather than exploring the descriptive statistics from various community-sample based studies, the following discussion explores studies that undertook some form of analysis to predict MSM's digital sex-seeking. Though this grossly oversimplifies the use of the digital media for sex-seeking, it is preferable to taking the descriptive statistics of potentially biased community-based samples as indicative of the lived experiences of MSM's practices.

In the US, Garofalo et al. (2007) conducted a survey with young men between the ages of 16 and 24 years old. Their survey was designed to explore the factors associated with use of the Internet to find sexual partners. Regression analysis predicting the use of the Internet to meet sexual partners found that multiple demographic characteristics were associated with Internet sex-seeking. Increased age was found to increase the likelihood of engaging in Internet sex-seeking, as was being white, having a history of unprotected anal intercourse, and having multiple partners in the past 3 months (Garofalo et al. 2007:1115). In contradiction to these findings, Abara et al. (2014), using bivariate analysis, found that age and race were not correlated with ever having used the Internet to meet other men. Abara et al.'s (2014) study was again based in the US, of a similarly aged cohort (18 to 29 years old) to that of Garofalo et al., and was similarly sized (N=263). A different demography emerges when comparing the MSM using Internet and mobile "sex apps".

In Grosskopf et al.'s (2014) study, the authors used an online survey to explore differences between MSM who used the Internet and mobile-based venues (N=126). Participants came from a wider age group than in the studies highlighted above, in this instance ranging from 19 to 50 years old (Grosskopf et al. 2014:514). Comparing men who only used the Internet with those who used both Internet and mobile applications, significant differences were found in median age and income (Grosskopf et al. 2014:514). Internet based sex seekers were slightly older than those using mobile applications, 27.75 compared to 24.83 years old respectively. The proportion of those using both Internet and mobile applications who had incomes above $50,000 was greater than the proportion for those who only used the Internet, 66.8 compared to 46.2 per cent respectively.

B.4 Summary statement on the demographics of MSM who engage in digital sexual practices

Combined, the various empirical studies in this appendix suggest that Internet based sex-seeking MSM may be older with lower incomes, compared to more affluent, younger, mobile sex-seekers. These findings go some way to supporting qualitative studies that have suggested that MSM's use of digital media is stratified by age

(Gudelunas 2012b). Furthermore, these age differences reflect those of general digital media users, where research has suggested that there are a generation of younger users who are embedded within cultures of connectivity – outlined in Chapter two. Those MSM not part of offline gay scenes may be more likely to utilise online venues to seek partners (Rawstorne et al. 2009). However there are contradictory findings between studies, either arising from differences in samples, different types of analyses, or a genuine lack of an MSM digital sex-seeking ideal type. Claims made about the demography of MSM engaging in digital sexual practices have been highly context dependent i.e. previous research has focused on a single venue or context of use. In a study such as mine, that purposefully followed flows and transgressed boundaries, and therefore lacked a singular context, definitive claims on the demographics of the possible population are difficult if not impossible to make.

Appendix C – Visualising the network-assemblage of Craigslist advertisements in Gephi

The following section outlines the design choices made within Gephi in order to construct the network-assemblage of concept-word-things analysed in Chapter six. In order to make the network-assemblage more amenable to interpretation, all nodes with degrees equal to or greater than two were retained. The degree gives the number of linkages that a node has. Therefore those concept-word-things with a degree of one only have one connection. A degree of two means there are two connections to a concept-word-thing, and therefore that there is at least some flow through a concept-word-thing – it is connected to other concept-word-things, even if the connection loops back to the originating concept-word-thing. The number of edge weights was also limited to greater than two. Edge weights are the number of times a co-occurrence between two concept-word-things occurs. Therefore limiting the number of co-occurrences to more than two meant that only those connections that occurred with some frequency were retained. Applying these constraints (Edge weight > 2; Degree => 2) reduced the number of concept-word-things from 2,326 to 742, whilst reducing the number of connecting lines (total edges) from 22,065 to 6,155.

Once this data reduction had been performed, an algorithm was applied to the network-assemblage in order to re-adjust the layout of the concept-word-things. The particular algorithm used (Force Atlas) pushes highly connected nodes away from each other, whilst aligning the nodes connecting to them around them (Paranyushkin 2011:10). Though the application of this algorithm increased the relative alignment of nodes within the graph, the concept-word-things still remained too tightly packed to be easily interpretable. In order to increase the interpretability of the graph, a further algorithm was applied in order to expand the graph outwards (Expansion algorithm), whilst retaining the relative position of concept-word-things to each other. Once these various layout options had been applied, the automatic community detection procedure in Gephi was then used – modularity detection. It is

the graph that resulted from these various filters and algorithms that formed the basis for my discussion in Chapter six.

As shown in Figure 40, the overall shape of the network-assemblage was dominated by a central mass of concept-word-things. Leading away from the central mass was a chain of concept-word-things related to a single post on Craigslist. In this post the advertiser listed names of female celebrities that they found sexually attractive. Community detection highlighted this string of female celebrity names as a distinct community. However in order to contain the main mass of concept-word-things within a single diagram, further filters were used in order to refine the representation of the network-assemblage in the write-up of the analysis in Chapter six. For example the minimum degree threshold was increased in order to show only those concept-word-things that were highly interconnected when focusing in on the different communities.

Figure 40: Black and white image of network showing the "Central mass" of concept-word-things and the trail belonging to the "Female celebrity names" community
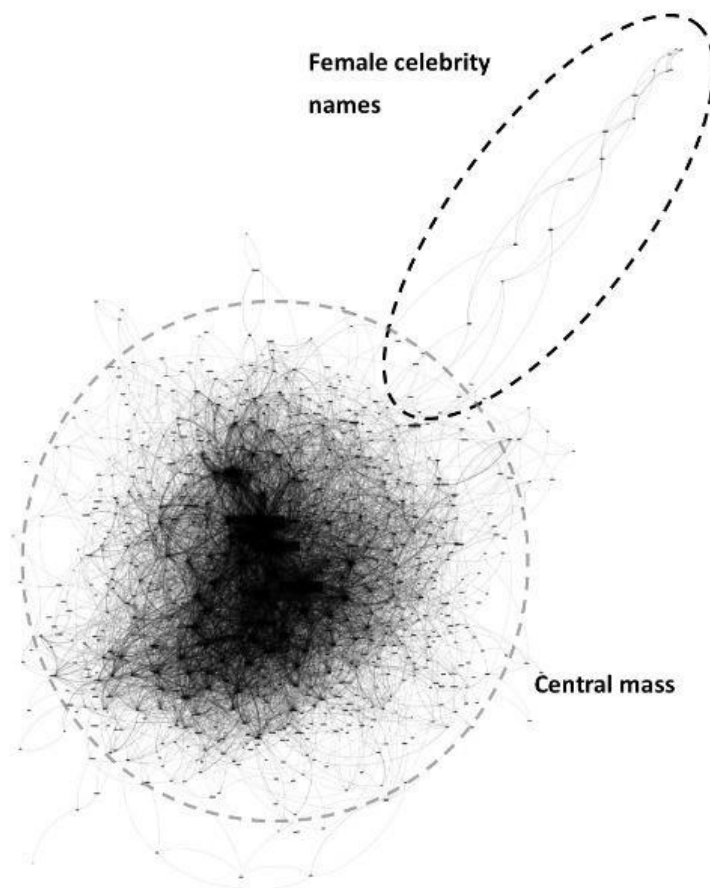
Appendix D – Social Network Analysis metrics for link analysis

D.1 In/Out degree and betweenness centrality measures for nodes within Figure 6 and Appendix E

Label	In-Degree	Out-Degree	Betweenness Centrality
Academic website	1	0	0.0
ask.fm	3	1	0.0
BBM	6	0	0.0
Blog	7	12	111.0
Bluetooth	1	0	0.0
Cam performance notifier	2	5	11.1
Cam site	14	23	427.6
Commercial blog	1	2	0.0
Commercial pornographic site	1	0	0.0
Commercial website	7	2	11.7
Community Twitter	1	0	0.0
Community Website	1	0	0.0
Corporate telephone	1	0	0.0
Classified ads	1	19	101.8
Email	10	0	0.0
Escorting website	1	1	0.0
Facebook	9	9	30.1
Facebook blog	1	2	0.0
Commercial Facebook	8	7	159.0
Forum	0	6	0.0
Fundraising text number	1	0	0.0
Fundraising website	1	0	0.0
Google	1	0	0.0
Google plus	4	1	0.3
Health charity telephone	1	0	0.0
Instagram	5	3	1.9
Kik	6	0	0.0
Messenger	2	0	0.0
Mobile sex app	0	18	0.0
News website	4	6	65.8
Note maker	1	0	0.0
Personal website	5	4	25.6
Pinterest	1	2	0.0
Poll website	1	0	0.0
Pornographic model site	3	4	4.0

Label	In-Degree	Out-Degree	Betweenness Centrality
Pornography sharing website	5	3	19.3
Profile site	6	13	72.9
QR code reader	1	1	0.0
RSS	4	4	22.0
Skype	8	0	0.0
Snapchat	6	3	4.8
Social network and gaming site	1	0	0.0
Telephone	6	1	18.1
Protected telephone number	1	0	0.0
Tumblr	11	12	152.5
Twitter	16	27	650.1
Twitter "porn" blog	2	2	0.0
Commercial Twitter	8	6	110.6
Uplust	1	1	0.0
Vimeo	1	3	0.0
Vine	1	0	0.0
WhatsApp	3	0	0.0
Wishlist	4	0	0.0
Xbox	1	0	0.0
XTube	5	4	2.7
YouTube	6	2	62.1

D.2 Gephi Social Network Analysis metric overview for Figure 6

Graph Metric	Value
Number of nodes/media	56
Unique edges/connections	209
Edges With Duplicates	0
Total edges/connections	209
Self-Loops	5
Connected Components	1
Single-Vertex Connected Components	0
Maximum Vertices in a Connected Component	57
Maximum Edges in a Connected Component	194
Network Diameter	5
Average Path Length	2.395
Graph Density	0.068
Modularity	0.301

D.3 Inter and intra community connectivity

Source group	Target group	Number of connections
Paid cybersex	Paid cybersex	21
Paid cybersex	Blogging	14
Paid cybersex	Web-based sex-seeking	13
Paid cybersex	Mobile sex-seeking	2
Paid cybersex	Commercial interests	10
Blogging	Paid cybersex	9
Blogging	Blogging	28
Blogging	Web-based sex-seeking	4
Blogging	Mobile sex-seeking	1
Blogging	Commercial interests	2
Web-based sex-seeking	Paid cybersex	10
Web-based sex-seeking	Blogging	10
Web-based sex-seeking	Web-based sex-seeking	23
Web-based sex-seeking	Mobile sex-seeking	3
Web-based sex-seeking	Commercial interests	3
Mobile sex-seeking	Paid cybersex	2
Mobile sex-seeking	Blogging	2
Mobile sex-seeking	Web-based sex-seeking	4
Mobile sex-seeking	Mobile sex-seeking	8
Mobile sex-seeking	Commercial interests	4
Commercial interests	Paid cybersex	5
Commercial interests	Blogging	1
Commercial interests	Web-based sex-seeking	1
Commercial interests	Commercial interests	29

Appendix E – Link analysis visualisations

Figure 41: Larger version of network-assemblage diagram showing media interlinkage (Figure 6); Community detection algorithm applied in order to illustrate emergent patterns of observed media use (Shaded and circled areas); Size of nodes indicates betweenness centrality.
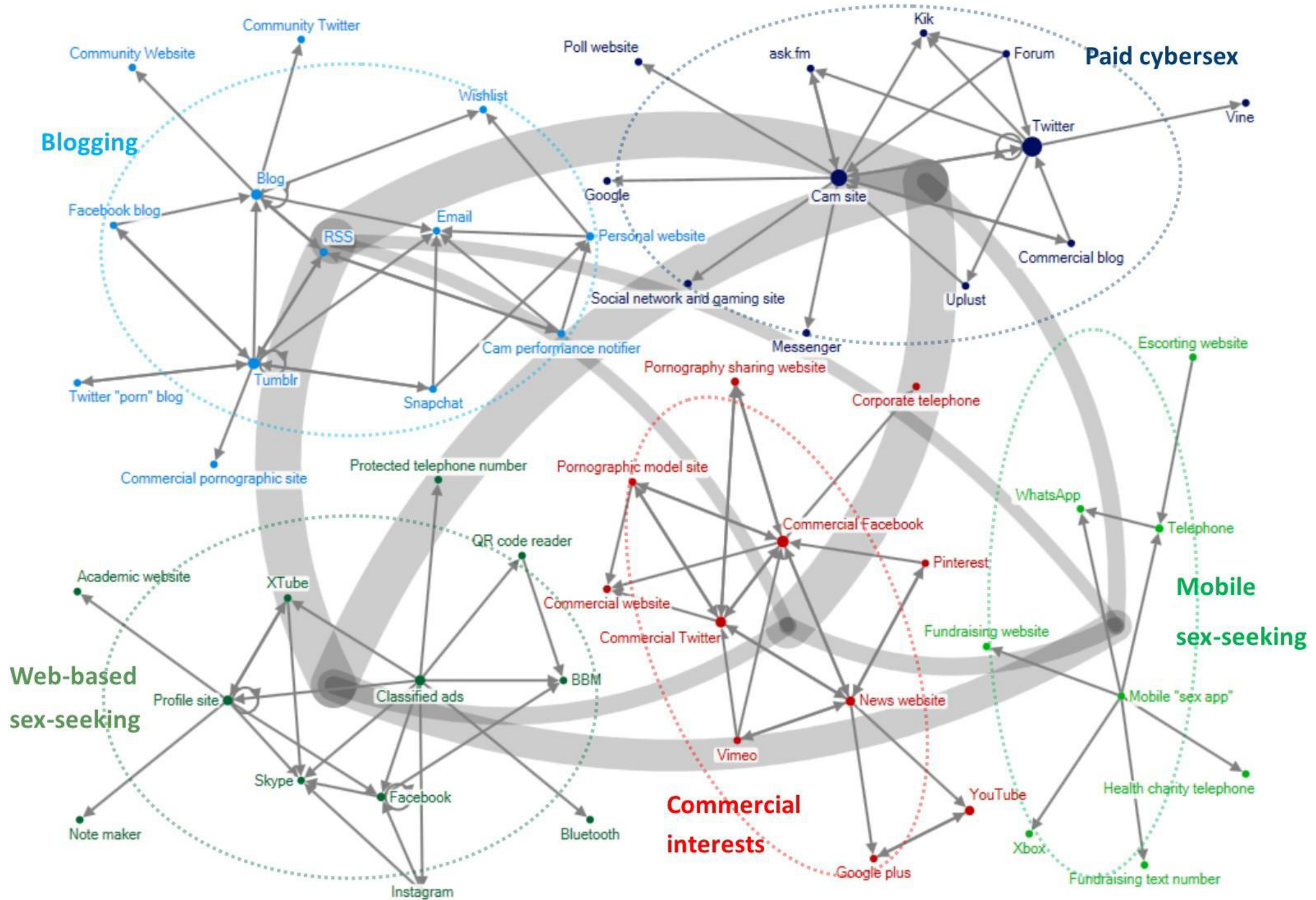
Figure 42: Early Gephi version of network-assemblage diagram showing media interlinkage; Community detection algorithm applied in order to illustrate emergent patterns of observed media use (Shaded and circled areas); Size of labels indicates betweenness centrality.
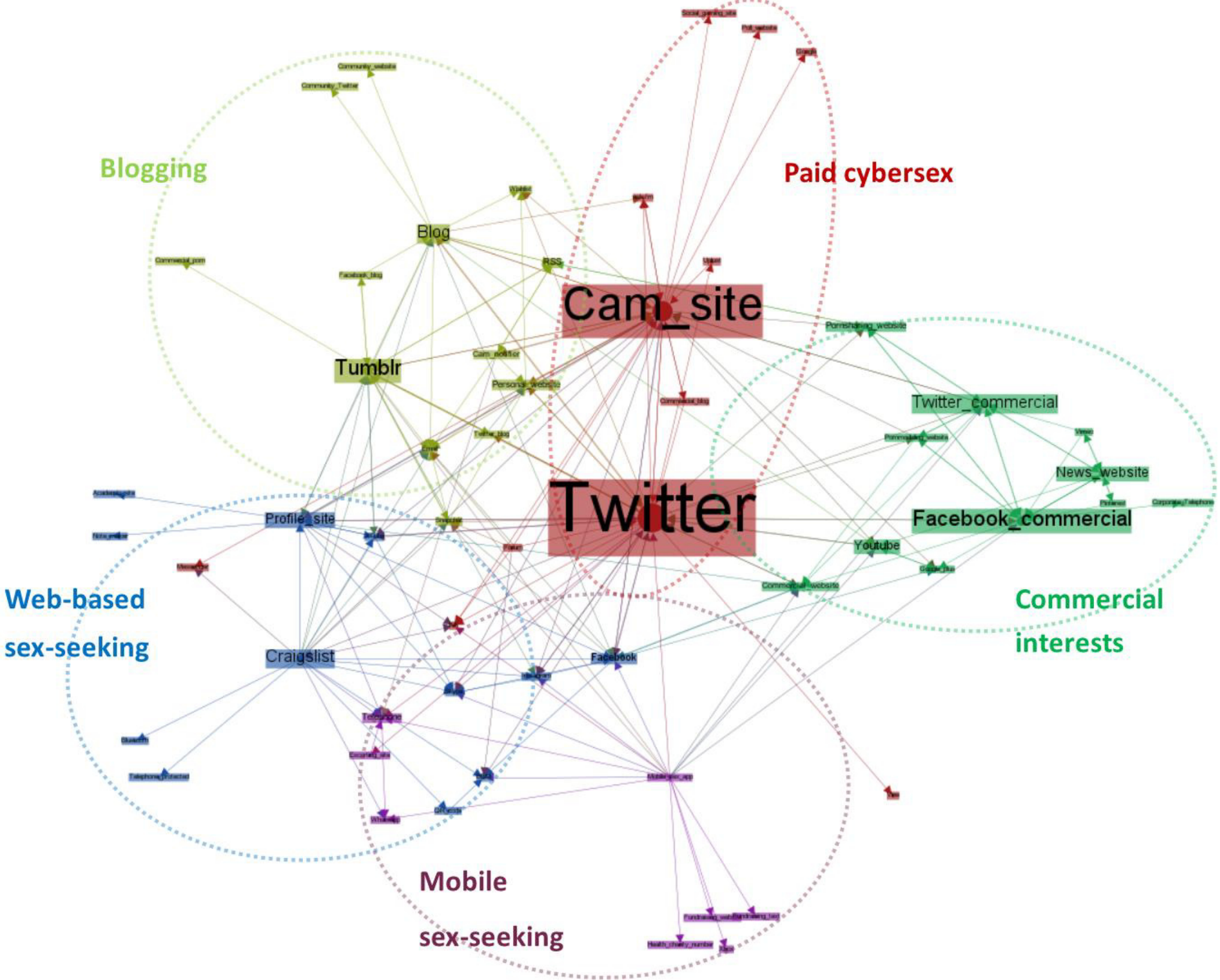
Appendix F – Craigslist literature summary

This appendix provides an overview of the literature drawing on advertisements placed by MSM on Craigslist. Studies have been sorted into chronological order.

Ref.	Topic/ Research Interest	Region	Sampling strategy	N	Data Analysis/Processing	Main Themes/ Categorisations
Lee (2007)	The construction of Gay Asian Male (GAM) identity in Craigslist sex seeking encounters	Canada (Vancouver)	Searched for key words (Asian, GAM). Used all adverts returned by key term search. Based analysis on those adverts which fell outside of simple identity categorisations	n/k	Qualitative analysis of representation of Gay Asian Males. Examples of advertisements provided, reproduced in their entirety using screen shots	(1) Race, (2) sexuality
Ward (2008, 2015)	Racialised and heterosexualised meanings of male same-sex sexual encounters	US (L.A.)	Searched for key words (DL, Str8). Used all adverts returned by search term	125	Qualitative analysis based around theoretical interests in masculinity and race. Examples of text from advertisements given in addition to visual images	(1) Race, (2) class, (3) sexuality
Grov (2010)	Unprotected sex and drug use amongst MSM online	US (New York)	Probability sampling adopted by selecting days and times for data collection. First 100 advertisements were downloaded at each time point	1,438	Coding of drug use and sex-seeking behaviours	(1) Sexual behaviours, (2) drug use and drug seeking, (3) discretion and relationship fidelity, (4) has a picture in advertisement

Ref.	Topic/Research Interest	Region	Sampling strategy	N	Data Analysis/Processing	Main Themes/Categorisations
Downing (2011)	Safe sex amongst MSM who use the Internet to find partners for public sexual encounters	US (New York)	Searched for key words relating to public or commercial sex and used all samples returned. Varied the time of day in which this procedure was carried out. This process was conducted for 15 minutes each day for 30 days, on two separate occasions	144	Quantitative content analysis was conducted, based on theoretical interest in HIV risk behaviours. Examples of advertisements provided to further explicate themes	(1) Type of encounter, (2) venue for encounter, (3) types of sexual behaviours, (4) risk behaviours and harm reduction
Goodlin-Fahncke and Dial (2012)	The sexual activities of (heterosexual) married men seeking sex with other men	US (4 Cities)	All advertisements posted during one month were collected and then a random sample taken	3,000	Text from advertisements was coded based on what information was given by the ad creator. Quantitative analysis was then conducted to compare married/unmarried men	(1) Marital status of seeker, (2) age of seeker, (3) time frame, (4) accommodate sexual encounter, (5) drug and disease free, (6) safe sex mentioned, (7) preferred sexual position/role, (8) activity being sought

Ref.	Topic/ Research Interest	Region	Sampling strategy	N	Data Analysis/Processing	Main Themes/ Categorisations
Robinson and Vidal-Ortiz (2013)	Explored the deviant label of the Down Low, or DL, being men who disavow a gay identity who seek sex with other men; specifically analysed the DL in relation to race and sexual activities	US (2 Regions)	Searched for key words and used all returned resulted	357	Thematic quant, qual. to expand on themes. Examples of text given	(1) Race, (2) sexual identity, (3) sexual position and role, (4) sexual acts, (5) types of men being sought, (6) self-description
Rosenbaum et al. (2013)	Compared how individuals of different sexualities advertise themselves; further exploration of married men's use of the internet to seek male partners, with a focus on sexual health	US (Chicago)	First three listings where collected from MSM, MF, FM and FF categories at random times for 1 month until 100 post were collected from each category	400	Qualitative coding based on theoretical perspective (Resource exchange) , this was then analysed in SPSS	Resources exchanged on Craigslist i.e. offer love, offer educational status, offer face picture

Ref.	Topic/ Research Interest	Region	Sampling strategy	N	Data Analysis/Processing	Main Themes/ Categorisations
Clements-Nolle et al. (2014)	Explored differences in sexual activities, HIV status, and sexual health between MSM advertisers of different ages	US (5 Cities)	Advertisements were extracted within 12 hours of posting	984	Content analysis using coding of advertisements based on pre-formed theoretical interests, including: time, location and presence/absence of information related to desired partner characteristics, meeting arrangements, sexual behaviour requests, disease status disclosure and safe sex requests	(1) Time of posting, (2) desired partner characteristics, (3) meeting arrangements, (4) sexual behaviour request, (5) disease status and safe sex request
Downing and Schrimshaw (2014)	Self-presentation, partner characteristics, and sexual activities of MSM seeking non-gay-identifying male partners	US (New York)	Advertisements were selected if they appeared to be posted by MSM looking for an encounter with a non-gay identified man (n=137). Comparison group were also selected (n=145).	282	Content analysis were conducted based on a review of a sample of advertisements, with final codes relating to: demographics, sexual identity, exchange of money for sex, location, health status and sexual acts preferred/offered	(1) Sexual marketplace characteristics i.e. body type, ability to host, penis type, HIV status, drug free; (2) sexual behaviour preferences i.e. masturbation, oral sex, anal sex

Ref.	Topic/Research Interest	Region	Sampling strategy	N	Data Analysis/Processing	Main Themes/Categorisations
Frederick and Perrone (2014)	Engagement in drug use and sexual activities (Party-and-Play, or PnP) by MSM placing advertisements online	US (Los Angeles)	Searched for key words relevant to drug use, specific 'argots' i.e. "party" (e.g., "party and play," "party 'n' play," "partying"), "PnP," or "Tina."	189	Content analysis coding advertisements based on commonalities in self presentation, harm reduction, forms of communication, and activities being sought	(1) Demographics, (2) appearance, (3) pictures, (4) sexual rituals and roles, (5) drugs, (6) meeting point and the setting for the encounter
Haimson et al. (2014)	Sexual health language use in advertisements placed by MSM seeking sex with other men	US (95 Cities)	Data collection took place within a 2 week period in 2013. All advertisements within sampled regions were collected within the time-period	252,786	A dictionary of sexual health related terms was compiled and used to conduct a computer assisted analysis for key terms	Sexual health, subdivided into: (1) disease status i.e. clean, (2) mention of HIV or HIV related terminology, (3) protection i.e. condoms, (4) 'risky' activities i.e. bareback, (5) mention of safe or safety, (6) mention of health or healthy
Reynolds (2015)	Construction of heterosexuality and masculinity in straight identifying men's advertisements when seeking sex with other men	US (5 Cities)	Searched for advertisements posted by straight identifying men seeking men	342	Coded advertisements based on MSM reinforced heterosexuality and masculinity	Social construction of heterosexuality and masculinity

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Appendix G – Network Text Analysis outputs

G.1 Top 10 concept-word-things ranked by degree centrality measure, listed for each community

N.B. Trans community contained only 5 concept-word-things

	Concept-word-thing	Betweenness Centrality	Degree
Blow job - cock	blow_job	31,599	249
	cock	24,137	224
	fuck	11,268	160
	cum	7,819	129
	wank	7,675	104
	love	4,203	100
	ass	3,359	96
	mouth	2,128	62
	big	2,665	61
	nice	996	60
Time - location - geography	time_period	28,811	246
	general_location	23,944	217
	accommodate	10,922	163
	fun	10,235	153
	geographic_location	11,634	147
	meet	2,755	98
	travel	2,201	78
	time	3,657	67
	touch	2,311	64
	direction	767	55
Image included	image_included	9,959	152
	lad	5,861	123
	good	8,740	123
	penis_type	4,359	108
	young	4,530	97
	man	5,455	95
	slim	3,778	94
	horny	3,762	93
	fit	3,324	93
	top	1,109	89

	Concept-word-thing	Betweenness Centrality	Degree
Picture requested	picture	18,812	161
	reply	3,837	78
	back	3,715	75
	interested	2,494	75
	prefer	2,208	74
	age	1,997	67
	send	1,222	67
	email	2,295	62
	body	836	58
	face	928	51
Discreet	discreet	8,540	149
	clean	4,728	119
	genuine	5,559	98
	ddf	846	57
	sex	1,223	56
	safe_sex	652	53
	hetero_partner	1,515	42
	long	932	41
	totally	881	37
	gloryhole	529	27
Straight - bisexual - gay	straight	6,945	125
	bisexual	6,457	112
	gay	1,567	50
	married	425	49
	curious	1,712	46
	share	1,340	25
	bloke	842	25
	buddy	532	18
	cool	178	17
	wank_buddy	306	15
Fantasies - abuse	fantasy	1,095	25
	son	646	17
	abuse	1,525	13
	control	386	12
	care	1,011	12
	unzip	154	8
	sounds	22	6
	force	129	6
	order	416	6
	drunk	238	6

	Concept-word-thing	Betweenness Centrality	Degree
Fantasies - women	underwear_womens	2,065	30
	girls_women	2,633	25
	bdsm	388	20
	bi_sex	803	17
	wear	58	14
	homo_sex	137	13
	cost	632	9
	hooker	158	7
	receive	14	7
	pretty	6	6
Female celebrity names	jen	719	7
	perry	1,800	4
	katy	2,518	4
	kelly	924	4
	cheryl	987	4
	cole	1,336	4
	wiloughby	746	4
	halliwell	90	4
	watson	1,325	4
	emma	1,525	4
Trans	cross_dress	66	9
	transvestite	72	8
	chance	15	5
	transsexual	33	4
	fans	0	2

G.2 Community overview

Community	Number of concept-word-things	Linkages (Degree)		
		In	Out	Total
Blow job - Cock	168	1	10	11
Time - location - geography	158	2	9	11
Image included	122	3	7	10
Picture requested	110	4	6	10
Discreet	64	5	4	9
Straight - bisexual - gay	41	6	4	10
Fantasies - abuse	30	7	2	9
Fantasies - women	29	8	1	9
Female celebrity names	15	4	1	5
Trans	5	5	1	6

G.3 Inter and intra community connectivity

Source	Target	Edges
Blow job - cock	Blow job - cock	672
Blow job - cock	Time - location - geography	463
Blow job - cock	Image included	507
Blow job - cock	Picture	236
Blow job - cock	Discreet	188
Blow job - cock	Straight - bisexual - gay	101
Blow job - cock	Fantasies - abuse	37
Blow job - cock	Fantasies - women	25
Blow job - cock	Female celebrity names	1
Blow job - cock	Trans	4
Time - location - geography	Time - location - geography	524
Time - location - geography	Image included	416
Time - location - geography	Picture	322
Time - location - geography	Discreet	177
Time - location - geography	Straight - bisexual - gay	95
Time - location - geography	Fantasies - abuse	33
Time - location - geography	Fantasies - women	33
Time - location - geography	Female celebrity names	2
Time - location - geography	Trans	2
Image included	Image included	773
Image included	Picture	192
Image included	Discreet	185
Image included	Straight - bisexual - gay	151
Image included	Fantasies - abuse	20
Image included	Fantasies - women	29
Image included	Trans	6
Picture	Picture	341
Picture	Discreet	113
Picture	Straight - bisexual - gay	41
Picture	Fantasies - abuse	6
Picture	Fantasies - women	14
Picture	Trans	4
Discreet	Discreet	156
Discreet	Straight - bisexual - gay	55
Discreet	Fantasies - abuse	4
Discreet	Fantasies - women	6
Straight - bisexual - gay	Straight - bisexual - gay	82
Straight - bisexual - gay	Fantasies - abuse	4
Straight - bisexual - gay	Fantasies - women	7
Straight - bisexual - gay	Female celebrity names	3
Fantasies - abuse	Fantasies - abuse	43
Fantasies - abuse	Fantasies - women	1

Source	Target	Edges
Fantasies - women	Fantasies - women	47
Female celebrity names	Female celebrity names	28
Trans	Trans	6