To Sort, To Match and To Share:
Addressivity in Online Dating Platforms

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Abstract: this paper analyses addressivity in online dating platforms, with OkCupid as its focus. Drawing from Mikhail Bakhtin's theory of addressivity, I argue the need for a generic account of online dating – one that focuses on the particular kinds of address that typify expressive scenarios on its platforms. Rather than focusing solely on how users address themselves to other users, I instead examine several layers of addressivity within the online dating scenario: (1) users addressing other users, (2) users addressing platforms, (3) platforms addressing publics, and (4) companies addressing investors, and (5) investors addressing users. I argue that within surveillance capitalism generally, and within online dating platforms in particular, there is an imbalance of addressivity: though online users are broadly aware that their data may be collected and analysed, they are nonetheless unconscious of and/or uncomfortable with this form of sharing, because it does not easily fit into previously known narratives of dating. In other words, the automatic gathering and analysis of data by OkCupid is a background condition of all its users' activity – but this is not sufficiently accounted for in users' generic understandings of online dating. OkCupid cofounder Christian Rudder's continual efforts to make online dating data analytics both understandable and palatable for users (via OkCupid's promotional material, TED-Ed talks, a blog, and a book on data) aims, in part, to address this imbalance. These stagings of the platform's address to its users aim to garner interest in, and acceptance of, becoming part of aggregated, privatized data sets – and indeed, coming to be witnessed and assetized by the automated gaze of data analytics.

Keywords: online dating; big data; addressivity; Bakhtin; surveillance; surveillance capitalism; platform capitalism; financialization; assetization

The popular online dating site OkCupid's homepage features an illustration of mismatched socks. A striped sock, a polka-dot sock, and two plain socks with different-coloured heels hover above a caption that reads: "Our matching algorithm helps you find the right people" (OkCupid n.d.). OkCupid is an American dating company, launched in 2004, which offers users a free service thanks to advertising revenue, with a paid premium option available for those who do not wish to see the ads. The site specializes in tailoring searches for dates by algorithmically analysing daters' responses to user-generated questions – some of them mandatory, some of them optional. This process generates detailed data-analytic pictures of users' traits and preferences. As of 2016, Match Group claimed "59 million active users per month, 4.7 million of whom have paid accounts" (Winterhalter 2016). As I write, the site boasts just under 140,000 active users currently online, with 7.3 million online messages sent per day through the site (OkCupid n.d.); it touts itself as "the best free dating site on earth" (OkCupid n.d.). Using socks, it illustrates its mission through what could be described as a softer version of the Aristophanean myth of love. In Aristophanes' famed speech in Plato's *Symposium*, Zeus fears men's power, and cuts them in two. He dooms them to long for, and search their other half – their love. In OkCupid's version, the humble sock seeks another half of a milder sort. It seeks simply a *match* – a shared set of patterns, colours, interests. OkCupid claims it can

find matches by compiling as many "socks" (or rather, profiles) as it can, and mechanically sorting them as ingeniously as possible.

To sort and to share: these verbs describe the twinned missions of dating sites and their users, respectively, in OkCupid's sock-myth. The prospective lovers express interests in their profiles such that they might be shared with a "good match" – out there, somewhere. The dating site accelerates serendipity and ups the odds of an auspicious 'chance' encounter, by sorting through the pile. Undoubtedly, this arrangement of lived and automated acts of sorting has, at times, profoundly changed personal lives, bringing together people who might fall in love. More ubiquitously, online dating has altered users' means of addressing themselves to prospective matches, understanding themselves as "datable" subjects, speculating on future families, and thinking through what a relationship could be.

In constructing scenarios in which users understand the personal qualities and preferences listed on their profiles and in their quiz answers as potentially valuable (in that they might attract dates), online dating platforms act as part of a neoliberal regime of self-appreciation, according to which personal attributes come to be assetized (Feher 2009). Michel Feher, following Foucault's insights in the 1978-79 *Birth of Biopolitics* lectures (2004, 215-238) but repositioning these to account for the predominance of investment over entrepreneurialism since the 1980s,[i] argues that the notion of human capital, particularly as it took shape in Gary Becker's work (1993), is key for understanding the assetization of the self at the heart of the neoliberal condition (2009). Human capital, Feher quips, is "me, as a set of skills and capabilities that is modfied by all that affects me and all that I effect…Such that everything I earn – be it salary, returns on investments, booty, or favours I may have

incurred – can be understood as the return on the human capital that constitutes me"
(2009, 26). Indeed, many developments in online ranking, rating, buying, selling,
scoring and dating – from new developments in credit scoring (McClanahan 2014;
Rosamond 2016) to new means of representing online reputation (Hearn 2010) – can
be seen as instantiations of the assetized neoliberal self.

Of course, the personal traits and tendencies proffered in online profiles are
not only profitable for those to whom they ostensibly belong but also profitable for
companies, such as OkCupid, which operate according to what Shoshana Zuboff has
recently termed "surveillance capitalism" (2015): an emergent regime of
accumulation according to which companies extract profit from collecting data,
analysing user habits, personalizing services, and intervening in behaviour. In
OkCupid's case (as with many other online companies), the platform generates
advertising revenue by selling customized, highly targeted audiences to advertisers,
by analysing users' profiles. How might it be possible to understand the relationships
between online dating platforms as sites of self-assetization (in other words, sites in
which users can garner benefit for themselves in the form of potential dates through
the assetization of their personal traits as aids in the 'matching' game), and as sites of
surveillance-capitalist assetization of personal traits, by platforms that seek to
generate revenue from them? Further, how is it possible to understand these
relationships by analysing the form of interactions between online daters and the
platforms they use – for all their mixing of libidinal and surveillance-capitalist
motivations?

In what follows, I propose a method for analysing some of these complexities,
by adapting a concept initially developed for literary studies. Focusing primarily on

OkCupid's means of addressing its users (and potential users), I attempt an analysis of the online dating site's addressivity: the Russian philosopher and literary theorist Mikhail Bakhtin's term for the dialogism at the core of any utterance; the ways in which it anticipates that it must be addressed to someone, and that it will be answered to. The article will pinpoint five levels of addressivity on OkCupid: (1) users addressing other users, (2) users addressing platforms, (3) platforms addressing publics, (4) companies addressing investors, and (5) investors addressing users. It will argue that understanding these levels through the lens of addressivity will enable a new understanding of surveillance capitalism as an imbalance in the addressivity of the assetized self.

<u>Analysing OKCupid</u>

Before beginning this analysis, I will first need to contextualize my decisions to focus on OkCupid as an exemplar of addressivity in online dating platforms; to emphasize OkCupid's address to its users more than users' addresses to one to another; and to adapt a tool of literary analysis for examining an online business. OkCupid is a salient example of addressivity in online dating platforms, since its founders (especially Christian Rudder) have been especially focused on presenting the craft of automated matchmaking to the general public, while also encouraging a fascination with data analysis more broadly. OkCupid and its founders have cultivated this fascination with algorithmic analysis (including, but not limited to, that which occurs on OkCupid) through various media including its promotional material; OkCupid's OkTrends blog (which presents findings from OkCupid's user data to interested readers); a book on data for a general readership, based on the OkTrends blog (Rudder 2014); and adver-infotainment such as Rudder's TED talk "Inside Out: on The Math of Online Dating" (2013).

In this paper, I briefly allude to the ways in which users address other users on the platform; but I emphasize OkCupid's address to its users through the above channels over a detailed analysis of particular online daters' means of addressing one another using the platform. Certainly, users' profiles on online dating sites anticipate that they will address prospective dates or partners, and thereby exemplify addressivity; and indeed, more could be done in future studies to analyse the minutiae of addressivity in particular online daters' profiles or messages to others. However, here I focus on how online dating platforms exemplify addressivity to their users, in order to focus on how they themselves present the aggregation of personal traits to their audiences, and thereby embed attitudes toward online dating platforms – and the data they collect – into their address to users. The platform, in other words, constructs of a form of address to its users that trains them to 'like' subjecting themselves to automated analysis as they search for love.

Much of the paper is devoted to detailing OkCupid's economic motivations – which, of course, to some extent determine why the platform is motivated to address users in such a way as might encourage them to be fascinated with their own data. Nonetheless, I begin with Bakhtin's concept of addressivity in order to be able to foreground, even in the midst of this economic analysis, the formal particularities of OkCupid's promotional utterances as sites at which a particular imbalance of addressivity, endemic to surveillance-capitalist platforms, is constituted. In adapting and applying a literary concept to analyse an online context, I take a cue from N. Katherine Hayles, whose pioneering work has opened up new paths for thinking about the relations between language and code, digital subjects and literary texts (2005). Adapting Bakhtin's concept of addressivity to online dating scenarios offers a new

way to describe how OkCupid aims to render its users conscious – and even desirous – of the platform as automated, algorithmic witness to their demographics and desires.

Addressivity

To sort, to match and to share: long before dating sites can conjure any dates, they must construct a form – and a forum – through which users can address themselves to potential lovers and as-yet unknown respondents. In fact, insofar as online dating platforms allow users to send their profiles into the unknown – specifically in search of new connections – we could say that online dating sites exemplify what Bakhtin called addressivity: "the quality of turning to someone" (Bakhtin 1986, 99) – or, as he puts it elsewhere, an utterance's "quality of being addressed to someone," of having both an author and an addressee (95). For Bakhtin, addressivity is a fundamental constitutive property of any utterance, whether in literature, everyday conversation or any other linguistic context. Without addressivity, he writes, "the utterance does not and cannot exist" (99). Yet despite being fundamental to the utterance, many analyses of expression through language, Bakhtin notes, either miss or underemphasize addressivity, since it does not appear in any of the constituent parts of an utterance (for instance, in any particular unit of language). Rather, addressivity is a property of the utterance in its entirety (95).

Addressivity is an important component in Bakhtin's broadly dialogical project. Throughout his writings, he constantly draws attention to the dialogism of language and literature, the senses in which language is shot through with interconnected calls and responses, echoes and iterations, and multiplicities of voices (Bakhtin 1990, 1981, 1984, 1986). The following passage from Bakhtin's analysis of addressivity in Dostoyevsky, from *Problems of Dostoyevsky's Poetics* (first published

in 1929), helps to illustrate just how intertwined addressivity and polyphony are in the Russian literary theorist's thought:

> A character's self-consciousness in Dostoevsky is thoroughly dialogized: in its every aspect it is turned outward, intensely addressing itself, another, a third person. Outside this living addressivity toward itself and toward the other it does not exist, even for itself. In this sense it could be said that the person in Dostoevsky is the subject of an address. One cannot talk about him; one can only address oneself to him. Those "depths of the human soul," whose representation Dostoevsky considered the main task of his realism "in a higher sense," are revealed only in an intense act of address (Bakhtin 1984, 251).

In Dostoyevsky, Bakhtin sees an intense expression of polyphony (the property according to which even a single character's voice has been inflected, even constituted, by multiple voices) and dialogism: the ways in which even characters' internal monologues read like dialogues, as if the characters are debating something with an implied witness, constituting themselves through an imagined act of address. In the passage above, we can see that these modes of analysis come to a head at addressivity – even though this remains a relatively minor concept in *Problems of Dostoyevsky's Poetics*, to be further developed in later works. For the subject cannot even exist, according to this view, but for addressing himself to someone – even if, as it happens, there is no one in particular available to address directly.

Addressivity, for Bakhtin, is at once a general, fundamental property of any utterance, and a highly prized literary quality: one that various writers might understand with more or less insight. At stake in Bakhtin's reading of Dostoyevsky is a claim for the latter's unique mastery of the intensely dialogized character. Dostoyevsky, the pioneer of the polyphonic novel, in Bakhtin's view, created in his characters "not voiceless slaves… but *free* people, capable of standing *alongside* their creator, capable of not agreeing with him and even of rebelling against him… *a plurality of consciousnesses, with equal rights and each with its own world*" (Bakhtin

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1984, 6; emphasis in original). Dostoyevsky's characters, in Bakhtin's view, were uniquely crystallized points of view on the world. Yet in their very singularity, they are also shot through with polyphony and addressivity – a sense that a particular point of view comprises many voices, and depends for its existence on being addressed to someone. In Dostoyevsky, Bakhtin contends, the intense interdependance of utterances in the polyphonic novel – which foregrounds addressivity – affords each character freedom from the author's point of view. As we shall see below, the equation of addressivity with freedom does not easily translate from character-author in Dostoyevsky to user-platform in online dating.

Aggregate User-to-User Addressivity

In his late essay, "The Problem of Speech Genres," Bakhtin argues that a genre can be defined according to its "typical conception of an addressee" (1986, 95). What, then, would constitute a typical conception of an addressee, if we were to move from an analysis of *character* and *novel* in Bakhtin (above), to an analysis of *profile* and *platform* in online dating? What forms of address define online dating as a genre, of sorts – as a distinctive style and category of expression? One way to answer this question would be to analyse the typical conception of an addressee evidenced by users' self-expression in online dating platforms. Certainly, online daters' profiles could not exist without prospective addressees; no one would put up a profile unless they wished to attract a potential date or partner. Further, the form of the platform – and its concomitant general conceptions of the addressee of online dating (in other words, a generalized sense of whom users, on the whole, would like to attract for a date) – favours certain forms of self-expression in profiles over others.

The best way to understand what kinds of self-expression are favoured in online dating, however, does not come from analysis of any one profile or message; it comes from an aggregate analysis of data. Christian Rudder, one of the four co-founders of OkCupid, has spent much time scouring data from OkCupid (and a few other sites) to determine general tendencies in online dating (although he certainly does not frame his investigation within the theoretical parameters that I have set up here). His book *Dataclysm* (2014) – in which he hones elements of his entries on OkCupid's "OkTrends" blog (OkCupid 2014) – presents detailed findings on the linguistics and demographics of desire in online dating. For instance, he studies the ways in which race affects dating preferences, and compiles lists of phrases on dating profiles most typically used by various self-identified groups (Rudder 2014, 164-168). He finds, for instance, that the phrases most typically associated with those identifying as white women (in other words, those used most often by this group, but least often by others) include: "my blue eyes," "blonde hair and," "love to be outside" and "campfires" (2014, 166). Rudder uses these analyses to understand general questions about online dating profiles and identity such as "How do people describe themselves? What's important, what's typical, what's *atypical*?" (2014, 157).

If we subject these queries to a slightly different analytical frame, we could see in Rudder's findings a perfect expression of addressivity. By portraying their identities in relatively similar kinds of ways (which aim, of course, to attract potential dates), online dating profiles express a typical conception of the addressee that defines online dating generically – and we see in some of the typical phrases an expression of the assetized self that is particular to online dating. As with Bakhtin's understanding of addressivity, this understanding of the dating profile says much more about the intensely dialogical relations between the platform and the profile – and between the

profile and its prospective readers – than it does about a presumed stable or closed-off identity of its subject. For instance, in the opening of Rudder's chapter on analysing typical words in dating profiles, we learn that the open-ended prompts OkCupid uses to trigger its users' self-descriptions include: "'My self-summary…', 'I'm really good at…', The first things people usually notice about me are…', 'I spend a lot of time thinking about…'" (2014, 158). Some of the typical phrases above (for instance, about blonde hair and blue eyes) seem to be direct answers to the third of these questions.

Thus, these typical expressions speak to a user's self-perception, what she anticipates a potential profile reader might desire, *and* the platform's address to her as a dating subject. As Benjamin Bratton reminds us, an online user (as a category within an accidental computational megastructure) is always, already intensely dialogical: "both overdetermined by self-quantification and exploded by the arrival of legions of nonhuman users (sensors, cars, robots)" (2014; see also 2016). Within this overdetermined/exploded context, users (though they may be tied to humans, as in online dating scenarios) are never fully human; rather, they express an interface between a person or people, IP addresses, platforms, automated analytics and expressive norms. Borrowing from Bakhtin's concept of addressivity, then, helps to theorize the *directionality* of such imbrications: the ways in which such intimate and deeply impersonal expressivities are intertwined in online dating platforms. The typical traits of the assetized online dating subject comprise an address to her potential dates, through a call from asset to asset – from algorithmically analysed personality to personality. Equally, they express the platform's prompts for users to assetize themselves: to tally their own traits – and, in doing so, to perform a speech act that transforms them into assets. From the perspective of the platform's economic

'wants,' assetization does not mean transforming users into sets of qualities and preferences that might attract prospective partners. Rather, it means transforming users' qualities, interests and behavioural traits into raw data for automated analysis – which can be sold to advertisers.

In his analysis of addressivity in Dostoyevsky, Bakhtin deeply valued the intensity and equality of dialogized characters – the fact that addressivity made them somehow incredibly particular and also equal to the other characters and to their author, free and capable of having a world all their own. In the addressivity of the online dating profile (here seen through aggregate data, framed and narrated by Christian Rudder), there is arguably an imbalance of addressivity: a form of address that emphasizes both less particularity and less independence for each profile. The assetized profile traits manage users' particularity, making it aggregate easily. Equally, they express a divergence in the way in which the assetized personal trait is conceived from the perspective of the dater, and from the perspective of the company. As we shall see below, Rudder's many efforts to make data analysis palatable and interesting for a general audience might be read as attempts to address this imbalance of addressivity in the online dating scenario.

User-to-Platform Imbalanced Addressivity

To gain a further understanding of this imbalance in addressivity, it is necessary to examine further how the online dating platform addresses users, understands users, and enters into a dialogue, of sorts, with them. A first step to analysing OkCupid's addressivity from this perspective would be to think about what the online dating platform ultimately *wants* from its users; this, of course, involves looking at OkCupid's business model. As mentioned earlier, OkCupid generates

revenue from both advertising, and selling premium subscriptions to users who do not wish to see advertisements. OkCupid's site collects, monitors and monetizes data; it data-mines for the purposes of customizing user profiles for advertisers. This typifies what Shoshana Zuboff has recently termed "surveillance capitalism" (2015). The platform's core financial logic is inextricably intertwined with automatically analysing users' profiles, identities, and online activities – a ubiquitous kind of analysis that is integral to both online dating and surveillance capitalism more broadly. Addressivity courses through every utterance in online dating contexts, insofar as users address themselves to potential daters, the site addresses itself to its users, and in general, online expressions in this context are shot through with *directionality* and *desire* – a sense of having both an author and a (desired) addressee. However, when it comes to the online surveillance that is the price for being able to use the site 'for free,' users address themselves to an automated, algorithmic witness with only partial awareness and/or intentionality. Online users may consciously address themselves to OkCupid's matching algorithm as they fill in the matching questions that give the algorithm the raw data it needs; they might consciously hope that the algorithm will turn out a hot date or a good match. However, when it comes to activities on online dating sites outside of the matching algorithm (such as writing a profile or messaging another user), it is far less clear that online users consciously address themselves to their algorithmic witnesses. Although public awareness of – and concern about – online surveillance is growing (Madden 2014), it does not necessarily follow that users actively address their profile information to this automated witness – even if they are vaguely wary of the fact that, as with any online activity after the Snowden revelations of 2013, being monitored is broadly understood to be a possibility online.

In saying this, I do not wish to suggest that an account of addressivity should be limited to forms of address that are consciously intended. Much to the contrary, though Bakhtin's literary analysis seems to favour some form of consciousness around addressivity, many forms of address may be unconscious, and in need of unpacking by a sensitive interpreter.[ii] Nevertheless, there is an imbalance in online addressivity if there is an uneven distribution between conscious and unconscious forms of address, as is the case in surveillance-capitalist online scenarios. In other words, if addressivity, in its intended, conscious guises, aggregates around users' online interactions and self-presentations, but these are merely witnessed by algorithms – without users having *addressed* themselves to their algorithmic witnesses – then arguably, there is a mismatch between the ways in which addressivity functions online, and users' generic understanding of online dating by virtue of its addressivity. In fact, such an imbalance can be understood as endemic to surveillance capitalism – although within online dating platforms, this imbalance comes uniquely into proximity with the libidinal charge that underpins a romantic desire to be witnessed by an other, an outside.

Platform-to-Public Addressivity

How might one intervene in this imbalance in user-to-platform addressivity? Enter OkCupid's presentation of its algorithmic logic to both its users and the interested general public. OkCupid's conscious presentation of algorithmic witnessing aims to ameliorate the imbalanced addressivity in online dating – and the mismatch between users' understanding of addressivity in online dating and online dating's actual distribution of addressivity. It does so by modelling a love for data analysis, and a desire for one's habits to become part of a data-set. Throughout the dispersed field of the company's public self-presentation, Rudder (in particular) often presents

himself as a disinterested enthusiast for the platform's analytic models, and adopts a pedagogical stance toward the public. Whether he is enthusiastically teaching users about data analytics on "OkTrends," explaining how a matching algorithm works in an illustrated TED-Ed talk, or lauding the power of data in the book *Dataclysm*, he is clearly also making a tacit case for accepting (and taking a benign interest in) data analytics. He invites his readers' fascination in the fact that they might learn something new about themselves by understanding how their own data might fit into 'the bigger picture.'

In presenting an image of the 'bigger picture' of data analysis, Rudder often blurs the distinction between sociological and surveillance-capitalist paradigms for data analysis. Though OkCupid is very upfront about how its business model works, alongside this frankness, Rudder often reframes platform-capitalist interests within the disinterested gaze of sociology – and even, indeed, as representing potential improvements on sociological powers of analysis. As he frequently points out in *Dataclysm*, it would have been impossible to find such large and robust data sets to study before his platform found ways to compile and 'read' through so many of its users' utterances. Many of his data-sets, he reminds his readers, vastly outstrip those of reputed sociological studies in scale (Rudder 2014, 11, 18, 20).[iii] There is a certain pleasure in seeing how one 'fits in' (or otherwise) to norms – particularly when such insights are offered with the appealing promise of more robust data sets than sociological studies can provide. However, the sociological disinterestedness that Rudder models in his book is predicated on the 'interestedness' of the data sets he collects, which are endemic to an economic shift that Nick Srnicek has recently dubbed "platform capitalism" (2017). Observing some of the same phenomena as Zuboff but with different analysis and emphasis, Srnicek defines platform capitalism

as a newly dominant paradigm of capitalist production, according to which businesses act as intermediaries and infrastructures, providing hardware and software on which others (users, consumers, and advertisers) are brought together. In Srnicek's view, such platforms are distinct from both Fordist and post-Fordist modes of production; the focus is neither on producing the steady streams of goods associated with Fordism, nor indeed on customized, on-demand post-Fordist production, according to which "lean" companies outsource unprofitable aspects of their business (such as the actual production of trainers, to take Nike as an example). Rather, as aggregators of others' activities, platform-capitalist companies are characterized by network effects (an increasing value that comes with more users – which breeds a tendency to monopoly), and cross-subsidization. Rather than simply outsourcing unprofitable aspects of their outfit (as in post-Fordist companies), platform companies cross-subsidize – by, for instance, providing a free dating or email service for users, but then selling information from those users to advertisers. Companies subsidize certain aspects of their offerings (such as offering free online dating services for users) and raise prices on others (such as advertising) in an attempt to create a monopoly (Srnicek 2017). OkCupid is an example of what Srnicek understands as an advertising platform – one whose main source of revenue is advertising. Of course, it is data extraction that allows this revenue – and thus, cross-subsidization – to occur. Data, here, does not generally act as a commodity as such; with some important exceptions,[iv] it is not directly sold within platform-capitalist business models. Rather, it must be *analysed* in order to successfully match users to advertisers, so that successful cross-subsidization – which maximizes the platform's scale and user base – can take place. Srnicek's theory of platform capitalism usefully complements and extends Zuboff's analysis of surveillance capitalism, by focusing on the unique forms

of platforms as the main proponent of its analysis. It also makes clear from another perspective why the platform might be invested in addressing users as beneficiaries of data analysis, in order to widen the platform's appeal in line with its ambitions of scale.

Benefits of Analysis

If, on the one hand, OkCupid seeks to match potential dates, it also aims to match users with advertisers – and Rudder's data-focused adver-infotainment, in no small part, aims to make this latter form of matchmaking more palatable for the public. Thus, within the broader context of platform capitalism and its cross-subsidization via data extraction, Rudder's way of framing online dating has a potentially unique narrative role to play, in that it aligns the libidinal narratives of romantic love with a narrative concerning an (albeit, less libidinally charged) love for data. To share in the benefits of the calculated match – to use a free online service – within platform capitalism is to freely share one's data with the platform: to partake of both the pleasure in dating, and the expropriation of data from one's online person. Yet, while there are many negative narratives of data-extraction (often centred around concerns with privacy), Rudder frequently draws attention to how analysis of one's position within data-sets can be emancipatory.

In particular, he uses data analysis to draw attention to the gaps between what people say they believe, and what their actions actually show. This comes across especially clearly in his analysis of the role of race in online dating. While very few people would openly claim to be racist – and, if asked, most users would say that they are open to interracial dating – in fact, Rudder finds a strong aggregate indicator of racism in his data sets, demonstrating a pervasive tendency for Black users to receive

lower attractiveness ratings from other users than for any other self-identified racial group (Rudder 2014, 103). In fact, Rudder's framing of the analytic power of his data sets acts precisely as an antidote to the ways in which online dating scenarios *lack* addressivity. As he puts it, "In a digital world that's otherwise compulsively networked, there's an old-school solitude to online dating... On a dating site you can act on impulses you would otherwise keep quiet" (2014, 104-105). Because users who rate others' attractiveness online (as the platform asks them to do) think of themselves as acting in solitude, merely expressing their own personal preferences, this allows for an analytic unconscious to emerge in aggregate. Compiling such unconscious expressions, *Dataclysm* implies, might provide important sociological diagnoses that complicate the picture presented by users' professed beliefs. This analysis could also help people to find happier matches, if they are willing to examine how their own prejudices might be preventing them from exploring promising potential partnerships.

More broadly, Rudder claims that analysing aggregate data can democratize history – by allowing tales to be told from the perspective of myriad "normal people," rather than a few exceptional figures (2014, 23). Broadly speaking, Rudder's book encourages readers to want to address themselves to the data-set, in order to be "analysed" and thus rendered more self-conscious; to be made part of this more inclusive history. Yet these interests align with the interests of advertising platforms more generally – to share in users' data sets, in order to produce auspicious matches between consumers and advertisers.

Company-to-Investor Addressivity

If matching between users (i.e. prospective dates or lovers), between users and platforms, between platforms and publics (i.e. potential users), and between users and

advertisers are among the layers of OkCupid's addressivity, there is yet another, and that is the company's ability to match itself with investors. Certainly, in a neoliberal, credit-based economy, it is not possible to only focus on platforms' profitability, without also discussing how such platforms fit into the speculative logic of investment. On the surface, it appears that OkCupid's free service is competing with other online dating business models (for instance, services relying more on subscription fees, or catering to particular sub-groups, such as those focused on seeking long-term partners only). However, at the level of investment, we can see that OkCupid's fate as a company is not, in fact, pitted against other models of online dating sites, so much as bundled together with other online dating brands, which are then traded on stock markets as a single entity. Rudder presented OkCupid's predominantly fee-free business model as strongly opposed to fee-based sites prior to 2011, when InterActiveCorp (IAC)'s Match.com purchased OkCupid for a reported $50 million (Jackson 2011). More recently, Match Group Inc. has broken out as a stand-alone public company (known on NASDAQ as MTCH), which owns "OkCupid, Tinder, and 45 other dating brands" (Flynn 2016), including Match.com and PlentyOfFish. As of its first quarter as a stand-alone company (October-December 2015), Match Group was reporting a 15% overall increase in revenue to $268 million, which nonetheless fell short of investors' expectations of a rise to $278 million (Flynn 2016). Nevertheless, commentators described Match Group as a solid investment, not least for its ability to "scale up brands" (BasuMallick 2016). As BasuMallick described it, "Every single brand in Match's portfolio caters to a different milieu, and, more importantly, an unmet demand for dating. That makes the stock a superb long-term holding" (2016). On the level of stock performance, OkCupid is part of a larger online dating strategy that, paradoxically, transforms

perceived *competition* between online dating brands within the Match Group (although, of course, there are a few main competitors outside of Match Group, such as eHarmony), into the terms of *customization*. Users can select the Match Group platform that suits their needs, so long as they will adopt the basic tenets of online dating. While the individual brands within the mega-brand may indeed be competing with one another for survival, the interests of the upper management and investors are hedged against this competition, thriving if the bundle of brands as a whole does well, and the sector's ubiquity grows. Match Group's website, which is addressed primarily to investors and speaks of the company's "diverse portfolio of over 45 brands," clearly expresses the mega-brand as a bundling of the platforms' interests (Match Group n.d.).

This is important to keep in mind with respect to Rudder's stance as a general advocate of data analysis, who combines a love of data with a benevolent narrative about the craft of constructing online dating sites. As Srnicek (2017), Lanier (2014) and others have noted, there is a tendency for data-driven businesses to need – and acquire – scale in order to survive; no one would use a site that did not boast enough potential matches (or potential taxi rides, rooms for rent, etc.) to give one a chance of finding a good match. A general interest in the ability of data analysis to help one find a partner or understand one's unconscious biases will garner an acceptance of the tenets of online dating in general, which can then increase the scale of OkCupid or any of the other MatchGroup brands.

Indeed, against the grain of Rudder's framing, it is possible to argue that sites like OkCupid work, for the most part, not by the sophistication of their algorithms, but simply because they are have amassed a substantial market share. In an interview, Winterhalter (2016) quizzes sociologist Kevin Lewis, who contends that OkCupid has

no clue as to the efficacy of its matching algorithms. To state the obvious, their aim is to make money, not to match people effectively; this aim is, to a certain extent, opposed to effectively matching users. A large 2012 study concluded that while online dating changes the dating landscape and offers more convenient access to potential partners, there is no evidence that matching algorithms produce better partnerships than any other means of pairing (Finkel et al. 2012, cited in Winterhaler, 2016). This study also found that:

> encountering potential partners via online dating profiles reduces three-dimensional people to two-dimensional displays of information, and these displays fail to capture those experiential aspects of social interaction that are essential to evaluating one's compatibility with potential partners. In addition, the ready access to a large pool of potential partners can elicit an evaluative, assessment-oriented mindset that leads online daters to objectify potential partners and might even undermine their willingness to commit to one of them (Finkel et al. 2012, 3).

The scalability of platforms can be felt in a sense of decision-fatigue in online daters. Yet, still, the sector continues to grow. As Winterhalter puts it, "online dating is here to stay, but, ironically, its continued success seems to be a function of its ubiquity. We use sites like OkCupid, in other words, because they're there, and because something is better than nothing" (2016). The aggregation of seemingly competing online dating brands into larger companies – which, together, aim for scalability – affects the addressivity of online dating platforms. Within this frame, the fact that Rudder's analysis, though focused on OkCupid, easily 'scales up' as a promotion for online dating in general can be understood as an expression of the aggregate nature of companies and their address to investors.

Investor-to-User Addressivity: From the Polyphonic to the Derivative

The bundling of online dating brands into an aggregate stock perfectly echoes the bundling of users' particular interests in the online dating profile. Both of these can be seen as iterations of what Randy Martin has called the social logic of the derivative (2015): a way of understanding how the packaging and bundling of risk in financial derivatives also serves as a social logic, according to which qualities, traits and risks come to be seen as packaged, bundled and managed. Martin writes of the transformation of identity into a derivative, minoritarian condition:

> Scanning for attributes, known as profiling, was not only key to surveillance technologies but also constitutive of Internet-based self-appreciation protocols[…] Conventionally seen as the other to structurally determinate political economy, identity, the key term of cultural politics in the eighties, can now perhaps be fruitfully understood as a kind of derivative, for we were taken to be the sum of all our myriad identity attributes, even as they traded separately or were attacked in their respective singularities as so many instances of minority discourse that threatened an unwanted critical volatility of quiescent cultural norms (2010, 360).

Alongside Martin, we can read online daters' identity as having been rendered minoritarian and derivative – with users expressing themselves not only through conventional identity categories, but also via aggregates of highly specified interests, such as in horror films, sci-fi, reggae or rock climbing. (This is in spite of stubbornness of larger identificatory categories, such as race, in Rudder's analysis of online dating.) Concomitantly, online dating brand identities are caught up in their own derivative identifications, which bundle and share out risks among various platforms targeted to specific user interests, and aggregated for investment. Through platforms, the company's derivative identity is addressed to – targeted to – its users' derivative identifications. Analysing matching between users, between users and advertisers, and between companies and investors, we see several layers of platform addressivity in online dating, each of which regulate the relations between specific users/companies and generic (self-)expression.

In online platforms, acts of matching and sharing accumulate between users (who may seek others with shared interests), but also between users and advertisers – and indeed, between variously-branded platforms, lumped into aggregate companies, which together seek shareholders. Sharing – of (love) interests, information and profit – is common to these three layers to the online dating site's addressivity. But while user-to-user addressivity might be relatively straightforward for users to understand generically – and to narrate for themselves – the other two levels of addressivity are insufficiently available to the narrative imagination. Users may be uncertain as to how to account for these obligatory, if far from obvious, aspects of sharing within online dating scenarios. The ways in which Rudder models a love for data analytics (or, as he quips, OkCupid's tag line could have been "making the ineffable totally effable") (2014, 13) helps to acclimatize users to the latter two aspects of sharing online – and, further, to align these monopolistic, market interests with the libidinal interests of romantic love. As an expression of the derivative condition, the minoritarian identities of online dating users and companies alike echo the polyphony at the heart of Bakhtin's account of Dostoyevsky – the sense in which any one character (or user) comprises many kinds of expressivity. Yet, moving from the polyphonic condition in Bakhtin to the derivative condition in Martin (and, here, in online dating), in the latter there is less emphasis on 'voicing' this plurality of expressivities, and more on the slightly more passive and possessive constructions of 'sharing,' 'having' and investing in bundles of assetized personal traits.

<u>Genealogies of Sharing</u>

It would be useful to situate this argument a bit further with respect to a genealogy of sharing. For Michel Feher (2015), sharing must be understood as

precisely the paradigm of neoliberal sociality. Both derivative finance and online

platforms privilege sharing (of content, risk, interests, non-rival goods, investment

and feeling). Online dating platforms, Feher argues, articulate a fundamental social

question, foregrounded in the neoliberal condition: in order to have a relationship,

what must be shared?

Unlike Alain Badiou (2012), for instance, who outright dismisses online

dating's emphasis on sharing as part of a limited, 'safety-first' approach to love, Feher

understands online dating platforms as expressive of the heightened importance of

sharing for neoliberal sociality. In the liberal-era, he contends, marriage was

predominantly understood as a form of exchange: a trade of services and resources,

with one partner going to work and the other keeping the household. This exchange-

based conception of marriage fades with the liberal era, for several reasons; and the

corresponding neoliberal relationship paradigm comes to be predicated on sharing,

not exchange. Radical feminist movements and queer activism helped to produce this

shift in small subcultures, chipping away at the uneven, or even impossible, terms of

exchange endemic to heterosexual love and marriage. Shulamith Firestone's work, for

instance (2015), is particularly important in Feher's schema, for questioning how one

could have an exchange in love between a man and woman at all, when the terms of

the exchange were so unequal. Alongside many other socio-economic shifts that

eroded the liberal-era exchange model of love, queer and radical feminist writings

played a key role in producing an altogether different image of love, founded not on

exchange, but on shared commitment. Eventually, Feher contends, this idea became

mainstream, as is perfectly expressed by the online dating platform, which implicitly

poses the question: in order to have a relationship, what must be shared? Indeed, this

question is enshrined in OkCupid's algorithms, which aim to help users determine for

themselves what interests they would like to share with a prospective partner, and which shared interests are the most important. Extending this question – what must be shared? – we can also read in online dating scenarios an imbalanced addressivity of the surveillance-capitalist platform, according to which there is a mismatch between the sharing of interests and traits in addresses from user to user, and the sharing of data-sets as a surveillance-capitalist, platform-capitalist, condition. This is precisely the imbalance that Rudder's OkCupid promotional material is keen to redress.

Conclusion

Analysing some of the many layers of addressivity embedded in online dating scenarios (user-to-user, user-to-platform, platform-to-public, company-to-investor, investor-to-user) reveals an imbalance in the directionality of addressivity. This imbalance between the self-assetization of users and the company's assetization of users as aggregate data-sets makes it clear why OkCupid wishes to cultivate in its users a love for data analysis, and a desire to be part of the data-set that coincides with the desire to find a romantic partner. Working with Bakhtin's concept of addressivity, in this context, allows for a novel means to analyse the directionality and balance of acts of sharing in online contexts: from the derivative nature of users, companies and identities as such (which are based on bundled and shared attributes), to the pursuit of shared interests between users, to the shared interests of users and advertisers (the latter of which, as we have seen, comes to be wrapped in a sociological echo). OkCupid (with some help from Christian Rudder's careful framing of its algorithmic witness) not only provides a place for users to come to understand how their own traits and interests might be shared by other daters but also acts as a meta-site through which users can learn to 'fall for' big data: to open themselves to becoming part of aggregate data-sets; and to share in the wisdom of accelerated serendipity through

automated matching. Sharing, in this context, becomes not only a social condition, but also a new form of coupling between human and automated, analytic witnesses in love scenarios.

It is my hope that drawing from Bakhtin's account of addressivity could expand scholarship on the ways in which users find themselves addressing (or addressed to) algorithmic witnesses – without, in turn, replicating the simple tendency to a 'paranoid' discourse of the algorithmic unconscious within surveillance capitalism. By this, I mean a tendency to stop an analysis of surveillance-capitalist scenarios at a simple repetition of the sentiment that 'they are watching us,' which is perfectly aligned with a mid-twentieth-century understanding of surveillance – notably those of Orwell (2013) and Foucault (1991). Though it may still be with us, this sentiment is inadequate to account for the automated, derivative and libidinal complexities of witnessing within platform capitalism. Analysing the addressivity of online dating platforms allows us to create a fuller picture of the complex relations between online users and data analytics – and to examine some of the ways in which romantic desire itself might be mobilized to help align users with the analytic desires of platform capitalism.

References

Badiou, A. 2012. *In Praise of Love*. London: Serpent's Tail.

Bakhtin, M. 1981. *The Dialogic Imagination: Four Essays*. Edited by Michael Holquist. Translated by Caryl Emerson and Michael Holquist. Austin: University of Texas Press.

Bakhtin, M. 1984. *Problems of Dostoyevsky's Poetics*. Translated and edited by Caryl Emerson. Minneapolis: University of Minnesota Press.

Bakhtin, M. 1986. *Speech Genres and Other Late Essays*. Translated by Vern W. McGee and edited by Caryl Emerson and Michael Holquist. Austin: University of Texas Press.

Bakhtin, M. 1990. *Art and Answerability: Early Philosophical Essays by M. M. Bakhtin.* Translated by Vadim Liapunov and edited by Michael Holquist and Vadim Liapunov. Austin: University of Texas Press.

BasuMallick, C. 2016. "Here's Why Online Dating Stock Match Can Offer Attractive Profits." *The Street*, July 25. https://www.thestreet.com/story/13650136/2/here-s-why-online-dating-stock-match-can-offer-attractive-profits.html.

Becker, G. 1993. *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education.* 3rd ed. Chicago: Chicago University Press.

Boyd, D. and K. Crawford. 2012. "Critical Questions for Big Data: Provocations for a Cultural, Technological and Scholarly Phenomenon." *Information, Communication & Society* 15(5): 662-679. doi:10.1080/1369118X.2012.678878.

Bratton, B. 2014. "The Black Stack." *e-flux* 53. http://www.e-flux.com/journal/53/59883/the-black-stack/.

Bratton, B. 2016. *The Stack: On Software and Sovereignty*. Cambridge, MA: MIT Press.

Chafkin, M. 2008. "Their Online Dating Site was Struggling – Was a blind-date stunt really the answer?" *Inc,* May 1. http://www.inc.com/magazine/20080501/their-online-dating-site-was-struggling.html.

Feher, Michel. 2009. "Self-Appreciation; or, the Aspirations of Human Capital." Translated by Ivan Ascher. *Public Culture* 21(1): 21-41. doi:10.1215/08992363-2008-019

Feher, Michel. 2015. "When Human Capital Rebels: the Case for Embracing our Neoliberal Condition." Goldsmiths, University of London, UK, March 11. https://vimeo.com/123325158.

Finkel, E. J., P. W. Eastwick, B. R. Karney, H. T. Reis and Susan Sprecher. 2012. "Online Dating: A Critical Analysis from the Perspective of Psychological Science." *Psychological Science in the Public Interest: A Journal of the American Psychological Society* 13(1): 3-66. doi: 10.1177/1529100612436522.

Firestone, S. 2015. *The Dialectic of Sex: The Case for Feminist Revolution.* New York: Verso.

Flynn, K. 2016. "Match Group Inc. (MTCH) Q4 2015 Earnings: Tinder Is Growing But Revenue Falls Short Of Expectations." *International Business Times*, February 2. http://www.ibtimes.com/match-group-inc-mtch-q4-2015-earnings-tinder-growing-revenue-falls-short-expectations-2291050.

Foucault, Michel. 1991. *Discipline and Punish: The Birth of the Prison.* Translated by Alan Sheridan. London: Penguin Social Sciences.

Foucault, Michel. 2004. *The Birth of Biopolitics: Lectures at the Collège de France 1978-1979.* Translated by Graham Burchell and edited by Michel Senellart. New York: Picador.

Gold, Matthew K. 2012. *Debates in the Digital Humanities.* Minneapolis: University of Minnesota Press.

Hayles. N. Katherine. 2005. *My Mother Was a Computer: Digital Subjects and Literary Texts*. Chicago: University of Chicago Press.

Hearn, Alison. 2010. "Structuring Feeling: Web 2.0, Online Ranking and Rating, and the Digital 'Reputation' Economy." *Ephemera* 10(3/4): 421-438.

Jackson, N. 2011. "Why Match.com Shouldn't Have Purchased Dating Site OkCupid." *The Atlantic*, February 2. http://www.theatlantic.com/technology/archive/2011/02/why-matchcom-shouldnt-have-purchased-dating-site-okcupid/70651/.

Lanier, J. 2014. *Who Owns the Future?* New York: Simon and Schuster.

Madden, M. 2014. "Public Perceptions of Privacy and Security in the Post-Snowden Era." *Pew Research Centre*, November 12. http://www.pewinternet.org/2014/11/12/public-privacy-perceptions/.

Martin, R. 2010. "Specters of Finance: Limits of Knowledge and the Politics of Crisis." *Journal of Communication Inquiry* 34(4): 355-365. https://doi.org/10.1177/0196859910382139.

Martin, R. 2015. *Knowledge LTD: Toward a Social Logic of the Derivative*. Philadelphia: Temple University Press.

Match Group (n.d.) *Match Group.* http://mtch.com/.

Mayer, J. and J. C. Mitchell. 2012. "Third-Party Web Tracking: Policy and Technology." In proc. of 2012 IEEE Symposium on Security and Privacy: 413-427. https://jonathanmayer.org/papers_data/trackingsurvey12.pdf.

McClanahan, A. 2014. "Bad Credit: The Character of Credit Scoring." *Representations* 126(1): 31-57. doi:10.1525/rep.2014.126.1.31.

OkCupid. 2014. *OkTrends: Dating Research from OkCupid.*
https://blog.okcupid.com/.

OkCupid. nd. "We Use Math to Find You Dates" https://www.okcupid.com/about.

Orwell, G. 2013. *Nineteen Eighty-Four.* London: Penguin.

Rosamond, E. 2016. "'All Data is Credit Data:' Reputation, Regulation and Character
in the Entrepreneurial Imaginary." *Paragrana* 25(2): 112-124. doi:10.1515/para-
2016-0032.

Rudder, C. 2013. "Inside Out: The Math of Online Dating." *TED-Ed Lessons.*
https://ed.ted.com/lessons/inside-okcupid-the-math-of-online-dating-christian-rudder.

Rudder, C. 2014. *Dataclysm: Who We Are *when we think no one's looking.* New
York: Crown Publishers.

Srnicek, N. 2017. *Platform Capitalism.* Cambridge: Polity.

Valentino-Devries, J. and J. Singer-Vine. 2012. "They Know What You're Shopping
For." *Wall Street Journal*, December 7.
https://www.wsj.com/articles/SB10001424127887324784404578143144132736214.

Winterhalter, B. 2016. "Don't Fall In Love With OkCupid." *Jstor Daily*, February 10.
http://daily.jstor.org/dont-fall-in-love-okcupid/.

Zuboff, S. 2015. "Big Other: Surveillance Capitalism and the Prospects of an
Information Civilization." *Journal of Information Technology* 30: 75-89.
doi:10.1057/jit.2015.5.

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[i] Based on his analysis of the ordoliberals' emphasis on competition over trade, and
Becker's theory of human capital, Foucault argued that the neoliberal subject was best
understood as an entrepreneur of the self. Though Feher draws much from Foucault's
account, he argues that Foucault's conception of the neoliberal subject must be
updated to account for the vast expansion of the credit economy since Foucault's
lectures. Investment, Feher argues, has become more paradigmatic of the
financialized neoliberal economy than entrepreneurialism, which remains in the
profit-driven paradigm of the liberal-era economy. Thus, in Feher's view, the
neoliberal subject is better understood as a portfolio manager of the self, rather than
an entrepreneur.
[ii] Indeed, many conceptual innovations that developed in modernity and beyond have
involved inventing reading practices that found addressivity where previously none
had been recognized. (For instance, Freud's reading of unconscious symptoms in
patients' gestures and mannerisms could be understood as a conceptual translation by
which the analyst finds unconscious addressivity in the body.)
[iii] Noteworthy, here, is the conspicuous absence of a discussion of the ways in which
academics, too, were seeking to increase the scope and reach of their data sets and
analytic methods. For instance, Rudder fails to mention the emergent field of the
digital humanities, as part of which scholars sought to produce cultural analytics, in

some cases using big data methods (See, for instance, Gold 2012; Boyd and Crawford 2012).

[iv] As Valentino-Devries and Singer-Vine (2012) point out, OkCupid has sold its user data to other companies on at least a few occasions; it sent "usernames to one company; gender, age and ZIP Code to seven companies; sexual orientation to two companies; and drug-use information – do you use drugs 'never,' 'sometimes,' or 'often'? – to six companies" (2012, 4). Similarly, Mayer and Mitchell (2012) reported that OkCupid "was sending to the data provider Lotame how often a user drinks, smokes, and does drugs" (415).