#notracist: Exploring Racism Denial Talk on Twitter

Introduction

The study of race online points towards not only extant forms of racism enduring on the internet, but the emergence of new and unique practices (Daniels 2009; Nakamura & Chow-White 2012). The development of 'Web 2.0' social media and networking platforms such as Twitter, Facebook, Instagram and YouTube, have expanded user participation and intensified online interactions. The rapid rise of social media appears to be proliferating racism and racialized expression (in addition to forms of misogyny and homophobia). While it is difficult to ascertain if social media is responsible for escalating practices of racism - see for example Roversi (2008), Meddaugh and Kay (2009) - it has been central to increasing the visibility and publicness of expressions of racialized discourse.

How may Digital Sociology approach the study of racism in ever-changing mediated spaces? Les Back and Nirmal Puwar (2013) advance the discussion of a 'Live Sociology', by making the important claim that innovations in research methods and developing new, critically reflexive sociological devices are essential for grasping a digital landscape. Furthermore, Lisa Adkins and Celia Lury (2009) contend that the digitization of everyday life is reconfiguring notions of stability and social structure, meaning and signification, and the changing relations of representation, experience and understanding. They contend that sociological research is compelled to ‘break with representational models of the empirical…and…confront a newly
coordinated reality, one that is open, processual, non-linear and constantly on the move.’ (2009: 16).

Our essay offers an investigation of the phenomenon of racism denial on the micro-blogging Twitter platform in the form of funded case study, which has a distinctive socio-materialist methodological focus. Twitter has established itself as an influential online communication medium for the dissemination of news and information sharing. Its ‘real-timeness’ and virality of information diffusion have drawn attention to its capacity to intervene in the social world, such as a means of co-ordinating emergency relief or influencing global political events (Murthy 2012). Breaking news stories and controversies dominate how Twitter is perceived to operate, leading to issues propagating through its network and beyond, with the capacity to acquire mainstream media status. While a burgeoning body of 'Twitter studies' research is emerging, there has been limited research work studying racialized discourse (Demos 2014). Little is known about the how modalities of everyday racial expression play out on the Twitter platform, and particularly practices of racism denial.

Our account of Twitter race-talk aims to offer a unique intervention, by presenting a methodologically motivated study. Its ambition is to highlight the significance of developing critical race theory vis-a-vis engaging with the technological affordances of digital media. We elaborate an instance of doing Digital Sociology from an approach that deploys the concept of the *assemblage* (Langlois 2011; Lupton 2014) for understanding the constitutive relations between the human (social media users), social phenomena (race and racism), and the non-
human (digital technologies and devices). More specifically, the study explores the techno-cultural practices of Twitter by focussing on use of hashtag operators in creating the conditions for the production of racialized meaning. Hashtags are notable for conveying more than linguistic meaning, as they shape how users interact with the Twitter platform (Zapavigna 2011; Sharma 2013). We empirically examine and analyze a relatively large corpus of tweets featuring the #notracist hashtag that formulates one rivulet of the overall Twitter stream of racialized discourse. This hashtag was selected on the basis that it makes apparent expressions of racism denial. Moreover, the affiliative function of the hashtag is considered as means of exploring the 'imagined audience' (Marwick and boyd 2011; Zapavigna 2015) of users propagating expressions of racism denial.

The first section of the essay briefly explores the significance of racism denial talk in relation to the shifting nature of the private and public sphere. In a post-civil rights era, the public expression of racism has become increasingly regulated and sanctioned, yet it has given rise to covert forms of racialized expression which seek to deny racist intent (Bonilla-Silva 2010; Picca and Feagin 2007). The current understanding of racism denial is limited to 'off-line' spaces, and it remains an on-going task to explore distinctive on-line practices.

The case study research process has not been linear, involving flitting between theory, the filtering and refinement of empirical data, and undertaking a grounded analysis. The second section of the essay outlines our methodology, focussing on the significance of Twitter hashtags and the Chorus software tool used to undertake the data collection and analyses. A dataset of
approximately 25,000 individual twitter messages (tweets) that included the hashtag #notracist was harvested over a period of time, which formed the basis for analyses. We offer a discussion of how working with Chorus - as a 'methodological device' (Lupton 2014) - formulates a component of a socio-material assemblage in the production of visual analytics of Twitter race-talk.

The third section presents a discussion of the dataset via Chorus analytics, by highlighting that #notracist is not about any specific event or issue as such. Rather, it is characterized by a steady, relatively low-volume of tweet activity, around a wide array of different sub-topics which bubble away on Twitter without ever trending or becoming visible. In contrast to the majority of event-based Twitter studies, we contend that an alternative approach is required for investigating everyday types of racialized 'micro-aggressions', which are not necessarily explicitly visible on social media. Furthermore, our analyses indicate that for the #notracist dataset, multi-hashtagging is a key practice in the differentiation of types of Twitter race-talk; and distinguishing between modes of racism denial can be achieved praxiologically rather than focussing exclusively on semantic meaning. Our approach seeks to grasp the digital materiality of hashtags, beyond text-based or linguistic-oriented accounts of Twitter talk that ostensibly dominate the emerging field of social media analytics.

The findings and analyses presented here are not exhaustive, and nor do they fully attend to the complexities of racialized expression on social media. Rather our aim is to offer an example
of a how a Digital Sociology of racism can develop an approach which brings together an analyses of technology, language, race and power (cf. Brock, 2012).

**Racism Denial**

An important body of academic research examining internet racism has become established focussing on extreme right-wing/neo-Nazi websites and discourses (Daniels 2009; Meddaugh & Kay 2009; Roversi 2008). While the field of internet research has diversified by exploring other forms and spaces of online racism, in relation to social media and particularly Twitter, there are currently a paucity of relevant studies. The majority of this work has been directed towards investigating forms of racist 'hate speech', that includes abuse and insults towards minority groups. Notably, Twitter is singled out to be the most popular platform for propagating forms of hate speech. For example, a recent study (Kick It Out 2015), exploring online discourses concerning UK Football, discovered that 88% of 'discriminatory language' (targeted at football players and clubs) specifically circulates on Twitter, in comparison to other social media platforms. The large-scale study, conducted by Demos (2014) entitled 'Anti-Social Media' investigated the presence of 'hate speech' (in the form of ethnic slurs) on the Twitter Platform. It found that that approximately 10,000 English language tweets per day include a slur.¹ The Demos study also points to challenges of identifying whether changes in modes of communication are responsible for the apparent increase in hate speech. And it highlights that the explosion of online communication enables the researcher to more readily access and examine 'public' forms of racism:
Hate speech online...does appear to be increasing dramatically. This might reflect a change in the way we communicate rather than an increase in the amount of hateful speech taking place: communicating online makes it easier to find and capture instances of hate speech, because the data is often widely available and stored (Demos 2014:11). Researching online hate speech is important for gauging visible and public expressions of overt forms of racism. Nonetheless, it does not directly address how phatic, everyday and more indirect modes of racism are present; and which kinds of (rhetorical) strategies are employed to negotiate the boundaries of acceptable public speech.

The fields of critical discourse analysis, linguistics and social psychology have developed a body of work that explicates racialized discriminatory language in everyday and institutional public talk (Augostinos & Every, 2007; Billig 1988; Potter & Wetherell 1987). Martha Augoustinos and Danielle Every identify how these types of racialized discourse are invoked:

...patterns of talk around race ... can be seen to reflect not only interpretative repertoires, that is, a set of descriptions, arguments, and accounts that are recurrently used in people’s race talk to construct versions of the world ... but also discursive resources that perform social actions such as blaming, justifying, rationalising, and constructing particular social identities for speakers and those who are positioned as other (2007: 125).

Discourse and language analysts have acknowledged the ambiguous and contradictory nature of race talk. The unsettled and shifting meanings of racism have resulted in some analysts refraining from making explicit categorizations and judgements ‘as to what
counts as racist but instead examine whether speakers themselves treat the talk as such and analyse how it is managed and attended to in social interaction’ (Augoustinos and Every 2007: 124-5). However, rather than merely acknowledging ambiguity and contradiction in race talk, we can consider this kind of linguistic ‘indeterminacy’ as symptomatic of contemporary forms of racism in a post-civil rights/‘political correctness’ era: expressions and practices of racism can be more covert and obfuscated. Moreover, from a sociological stand-point, it is crucial to maintain that racism is not simply a question of individual prejudice or pathology. Expressions of racism - whether overt, covert or contradictory - continue to reinforce racialized hierarchies and power structures in society (Picca and Feagin 2010).

A post-Civil Rights era has resulted in the rise of legislation and social regulation against certain forms of racist expression and ‘hate speech’. Direct and explicit racist discourse is less publicly and morally acceptable due to stronger anti-discriminatory social norms. There is an increased public sensitivity towards avoiding inappropriate use of racist language. Critical race scholars such as Eduardo Bonilla-Silva (2010) and Leslie Picca and Joe Feagin (2007) maintain that the apparent decline in publicly (i.e. off-line) overt racist discourse, has been substituted with subtler, covert and coded racialized expressions. This has resulted in more strategic forms of public race-talk, particularly in relation to practices in the ‘denial of prejudice’ which can pervade everyday racist talk (van Dijk, 1992). Strategies of denial can commonly take the form of a disclaimer:
Analysis of post-civil rights racial speech suggests whites rely on 'semantic moves,' or 'strategically managed...propositions'...to safely state their views. For instance, most whites use apparent denials...or other moves in the process of stating their racial views. The moves act as rhetorical shields to save face because whites can always go back to the safety of the disclaimers... Phrases such as "I am not a racist"...have become standard fare...They act as discursive buffers before or after someone states something that is or could be interpreted as racist. (Bonilla-Silva 2010: 105)

Picca and Feagin (2007) develop a Goffman-inspired analyses of contemporary racialized expression in terms of identifying differing 'frontstage' and 'backstage' racial performativity. Rather than overt racist discourse disappearing, its articulation has been mostly consigned to the 'private' backstage, generally hidden from public scrutiny. In contrast, the frontstage performativity of covert racist expression can involve 'saving face' via public disclaimers. These authors, alongside other scholars such as Nina Eliasoph (1998) and Raúl Pérez (2013) also highlight the defensive role of joke-telling and comedic performances, as means to continue to express more overt forms of racism in public spaces.

To date, no specific studies examining the practices of online racism denial on social media platforms have been conducted. While there is research examining explicit modes of internet racism (see Daniels 2012), the more coded practices of expressing racist comments while simultaneously denying racist intent is far less understood in
terms of its online manifestations. What is of interest, is whether off-line racism denial strategies are being reproduced on social media, and/or if new online practices are emerging. Do the technological affordances of Twitter facilitate unique modalities of racism denial? Moreover, online communicative practices, to varying degrees, can blur the boundaries between public/private spaces and front/backstage performances (Baym 2010; Daniels 2012). The existing Twitter studies exploring hate speech indicate that some of its users breach normative boundaries of acceptable speech. Somewhat in contrast, as we shall discover in our analyses section, users in our study appear to acknowledge the existence of these boundaries through their use of the 'disclaimer' hashtag #notracist. In this respect, it may be the case that different sets of Twitter users hold differing notions of their 'imagined audience':

Given the various ways people can consume and spread tweets, it is virtually impossible for Twitter users to account for their potential audience, let alone actual readers...Without knowing the audience, [users] imagine it. (Marwick & boyd 2010:4)

Before turning to the analyses of our study, it is productive to discuss the methodological approach we deployed, as it central to the developing a digital sociology presented here.
Notes on Methodology

Identifying racialized talk (including racism denial) on social media is a challenging task, because there exists a huge array of linguistic terms and repertoires signifying variegated racist expression. These can range from: extreme racist abuse; insults and micro-aggressions; and obfuscated talk in which racism is covert, indirect or coded. As expressions become less explicitly racist, they become increasingly difficult to identify and interpret by the social researcher. This is particularly the case for expressions of racism denial, because of the deployment of rhetorical and covert language in the act of refuting racist intent (van Dijk 1992; Picca & Feagin 2007).

Our initial foray into identifying forms of racism denial on social media resulted in identifying a handful of ‘anti-racist’ sites or accounts which exposed individual users' refutation of racism; see Facebook public posts http://www.notracistbut.com/ and the tumblr site http://imnotaracistbut.tumblr.com/. These indicated the popularity of permutations of the phrase “I’m not racist but” on social media. Variations of this phrase were tested on the Twitter search API, which led to locating the account @yesyoureracist. This account, included making visible tweets which denied any racist intent. Examining these collated tweets indicated the sporadic use of the hashtag #notracist within some messages. Concatenated in the form of the hashtag, it appears that #notracist being included in Twitter messages echoed the "I'm not racist..." strategy of racism denial. Investigating racism denial on Twitter via a hashtag such as #notracist will exclude a whole range of potentially relevant Twitter data which does not include this hashtag. However, our intention was not to undertake an exhaustive study, but
rather to focus our efforts by privileging the hashtag as a means to investigate particular practices of racism denial which actively engage with the architecture of the Twitter platform.

Hashtags are a noteworthy phenomenon, because they have multiple uses on Twitter (Zapavigna 2015). The practice of users attaching a label or ‘tag’ to online content such as a message, document, image or video has become a central feature of ‘Web 2.0’ social sites. User-based free-form tagging on social media platforms has been principally used for information retrieval and recall, and in this respect is a posteriori. In contrast, tagging within Twitter is primarily a priori, as it is commonly used for filtering and promoting messages in real-time (Huang, Basu & Hsu 2010).

The hashtag – a single or concatenated term prefixed by the # symbol, for example, #obama or #firstworldproblems – has become publicly synonymous with Twitter, although they feature in less than 15% of messages of the whole Twitter stream (Liu et al. 2014). The Twitter platform adopted this user-based ‘folksonomy’ practice by including it in its interface and rendering hashtags as searchable hyperlinks. In particular, popular or trending hashtags are made visible as part of the main Twitter interface (both web and mobile), and can collate hundreds of thousands of disparate tweets, forming a networked sociality and enabling users to participate in collective ‘conversations’. Many studies have focussed on hashtags ‘amplifying’ the significance and findability of tweets, and generating ‘ad-hoc publics’ often with temporary or shifting boundaries (Bruns & Burgess, 2011; Murthy 2012).
While the function of hashtags is variegated, they are significant in Twitter as ‘a form of “inline” metadata, that is, “data about data” that is actually integrated into the linguistic structure of the tweets’ (Zapavigna, 2011: 791). Hashtags can be deployed to categorize the content of a message as ‘topic-markers’; and as hashtags are user-created, this ‘bottom-up’ practice of tagging can lead to both redundancy (many hashtags have the same meaning), and ambiguity (a single hashtag has different meanings) (Garcia Esparza et al., 2010). Nevertheless, as discussed by Thomas Vander Wal (2005), (hash-)tagging can be characterized by a ‘power law’ distribution which describes the phenomenon that a few tags are frequently used by many people and in contrast, the majority of the remaining ‘long tail’ of hashtags are infrequently deployed.

Social researchers need to be careful not to circumscribe Twitter hashtags to principally acting as online linguistic operators. One of the limits of privileging language-oriented analyses is that ‘...text-focused methodologies deal with content in its linguistic and social aspects rather than with the technological or material context that enables the production and circulation of signs' (Langlois, 2011: 9). What is of interest in our study is how the *techno-cultural* affordances of Twitter are generative of race talk in relation to the use of racialized hashtags. In this respect, it is productive to deploy an alternative account of racialization, which does not only dwell on semiotic meaning or the problem of representation. Conceiving race as a ‘digital assemblage’ - which identifies processes of heterogeneous elements brought into sets of relations with one another - facilitates an understanding of the emergence of racialization in online spaces by exploring how it works and what relations it generates, rather than only the meanings it
produces (see Sharma 2013). This materialist approach of conceiving race (cf. Saldhana 2007), considers the specificities of racism and how it is manifested in online spaces. Thus, specific forms of racism denial can be grasped in terms of how it is formed in relation to a Twitter techno-cultural assemblage, constituted by the informational logics of hashtags, software interfaces and algorithms, networked relations, racial dis/ordering, and meanings and affects.²

The dataset for our study was generated by collecting usages of the #notracist hashtag, searched via Twitter's Search API between March - November 2013. This resulted in harvesting 24,853 tweets over the eight month time period.³ The period was determined by the constraints of the length of the funded research project, and based on monitoring whether further harvesting led to data redundancy for the purposes of our analyses.

The empirical analyses of the dataset was developed through a visual analytic approach (Card, Mackinlay & Shneiderman, 1999). This methodology has its origins in the fields of information and computer science and has informed the development of Chorus,⁴ a software suite capable of collecting and visually parsing Twitter data. Chorus was deployed for generating the #notracist dataset and assisting in its analysis. The primary tenet of visual analytics is that visualisations should serve some functional purpose; as opposed to being merely images and outputs, visual analytic representations are dynamic and interactive research tools. In our case, Chorus was initially used to identify the frequency of the appearance of the #notracist hashtag over the specified time period, and subsequently, to visualize the relationship between terms (i.e. other related hashtags) in the #notracist dataset.
We are aware of the technological affordances of *Chorus* – it is not merely a method or tool for analyzing a large corpus of Twitter data, because it governs what we perceive is possible to do with this type of analytic approach. *Chorus* is a 'methodological device' (Lupton 2014) that connects together both method (as technique) and the research object (hashtags). The data visualizations produced by *Chorus* is a key step in studying the #notracist dataset. Moreover, understanding how the software produces these visualizations is crucial towards developing a meaningful analysis. Thus, *Chorus* constitutes an element involved in the production of a Twitter assemblage that activates an analysis of racialized hashtags. While the technical work of processing this type of Twitter data is accomplished by *Chorus*, a methodological understanding of the workings of those processes and algorithms is necessary for explicating what is observed in that data, and how it may be interpreted (see Brooker et al., 2015).

#notracist: Hashtagging Racism Denial

An initial exploration of the #notracist dataset via the time-line graph (Figure 1) generated by the Chorus software, indicated that the most useful reading of the data would not come from considering it as having a meaningful temporal dimension as a basis for analyses – little within this data is found to change across time. Figure 1 presents a sporadic and diverse dataset with few (if any) distinguishing features in terms of how the volume of usages of #notracist fluctuates over time.\(^5\)
To give a sense of how voluminous the #notracist talk is on a day-by-day basis, it averaged out at slightly over 100 tweets per day, with the least populated day in our data consisting of 36 tweets and the most populated day featuring 239 tweets. There is little in the dataset indicating that #notracist captures a topic in a conventional sense, i.e. a visible issue or one that inspires significant discussion between Twitter users around some focal event (such as the publication of a news report or the broadcast of a TV show). The content of the tweets in the dataset exhibit a wide variety of everyday commentary that appears difficult to organise into a meaningful schema. Nonetheless, they share a commonality in the use of the #notracist hashtag as a disclaimer that has a ‘distancing function’ (van Dijk 1992) from accusations of racism. The inclusion of the hashtag exhibits practices of ‘interpersonal punctuation’ which is declarative of a user’s ‘stance’ (Zapavigna, 2011). Individual users deliberately punctuate their tweet indicating their supposed ‘non-racist’ disposition. For example:

MikepFenny: finally got a new boss today. Hes under 50 good guy has social skills totally white with zero accent. I am so pleased #notracist
These tweets are exemplary for highlighting the diversity of banal racialized 'content' of the dataset. It is interesting to observe that in the #notracist dataset the majority of users do not have large numbers of followers, and rarely are messages with the hashtag re-tweeted. It is difficult to ascertain the 'imagined audience' of these users when deploying #notracist. Nonetheless, in addition to expressing a defensive stance, the inclusion of the hashtag suggests an affiliative mode of communication. The interpersonal function of the #notracist hashtag may invoke '...the notion that there are people who feel the same way as the microblogger...regardless of the fact that it is unlikely that anyone would ever use the tag as a search term' (Zapavigna 2015: 18). While the #notracist hashtag does not appear to beget direct interactions between users, its deployment intimates a shared predilection of racism denial.

In contrast to explicit racist tweeting which can gain social media visibility via high frequency re-tweeting and/or @mention conversations,7 the #notracist dataset lacks such traction; #notracist tweeting generally occurs in isolation without any noteworthy presence. We can speculate that the #notracist hashtag is indicative of a social media racism that follows a power law distribution, that is, a racism of the 'long tail'. What is usually witnessed as social media racism are those events that have gained significant traction and visibility. Arguably, there also exists many more racist micro-events which are ostensibly inconsequential due to their
'invisibility' - for example, as background chatter - yet are symptomatic of forms of everyday online racialized micro-aggressions (cf. Sue 2010). Conceptualizing a racism of the 'long tail' via the hashtag, highlights #notracist as an element of a Twitter racialized assemblage: aggregating (connecting) what appears to be spontaneously-occurring individual race-talk that materializes seemingly coherent yet diverse practices of the denial of racist expression.

The significance of the hashtag in relation to a Twitter assemblage can be further elaborated in terms of how it functions alongside other (non-racialized) multiple hashtags in the #notracist dataset, which is where our attention turns in the discussion below.

*Visualising Multi-Hashtags: ‘Truth’ and ‘Humour’*

The time-line visualisation points to a dataset that is not significantly event-based. As such, our analytic efforts were directed towards the exploration of ‘topics' consisting of aggregations of terms that are more commonly used together. Thus, an alternative line of inquiry was pursued using Chorus' *Cluster Explorer* modelling, which build sets of visualisations to represent and facilitate navigation around ‘topical’ clusters. These models plot the relationships of terms (which can be words or other fields such as hashtags) as they are used together in tweets, where a relationship signifies the commonality, that is, the co-occurrence of the usage of one term with another in a tweet (cf. Callon 1983; Danowski 2009; Marres and Gerlitz 2015). A cluster map is built up from direct and indirect relations of terms which allows a spatial mapping algorithm to plot the relationship of one term to another as a function of distance (where the closer a term is to another term, the more strongly it is related). In clustering
together strongly-related sets of terms – for example, the likelihood that two hashtags are co-occurring within a tweet - 

Chorus provides a method of identifying and mapping distinct topics and their inter-relations (without relying on a priori categories defined by the researcher). This kind of visual parsing of the #notracist dataset by the software is only one step towards an analysis. Chorus is not able to discern the sociological significance and meanings of the relations between terms it visualizes. Nevertheless, it is important to grasp how a cluster map is produced, as it influences the trajectory of a deeper exploration of the dataset.

For the #notracist dataset, aside from the original #notracist term there were a further 7717 hashtags in use. That is, approximately 30% of the entire dataset consisted of more than one hashtag being included (along with #notracist), which is remarkable as multiple-hashtagging is not a common practice in Twitter (Liu et al. 2014). The following examples of tweets illustrate practices of multi-hashtagging in #notracist dataset:

- helen_louise_: I literally cant stop eating watermelon. & Im not even black.
  #notracist #JustSaying

- PaneKilla: How to say the alphabet in vietnamese #funny #notracist #accent #alphabet #vietnamese #peace #lol http://instagram.com/p/**********/

Given our original search query, which aimed to find usages of a specific hashtag, we plotted a model which used hashtags as ‘nodes’ in the Cluster Explorer map - see Figure 2.
Figure 2: Cluster map showing the topical relationships between all hashtags within the #notracist dataset (not including #notracist). Labels are given to hashtags which feature in >1% of tweets.

This visualisation indicates a topical cluster map of multi-hashtags occurring with #notracist (each node being a different hashtag). Immediately observable in Figure 2 is a tight central cluster of hashtags (including #funny and #lol), which are closely related to each other and demarcated in the inner (solid-line) radial. Although, there are also a number of significantly populated nodes that feature on the outer branches extending from this central cluster (including #truth, #iswear, #fact, #justsayin/g), often appearing on the end of branches – located in the outer (dotted-line) radial.
The difference between the two radials is significant in as much they illustrate different tweeting practices. The operational tendency of the Chorus clustering algorithm is to plot all the highly populated nodes towards the centre of the map so as to make room for less connected outliers around the edge of the map; we do not see this occurring. Picking through the most frequently populated nodes in either radial, we find a thematic difference between the radials as identified by two distinct ‘categories’, which supplements and coincides with their algorithmic difference. Firstly, the inner radial consists largely of ‘Humour’ hashtags which are intended by tweeters to mark tweet content as containing jokes or other comedic material. Secondly, the most frequently occurring hashtags in the outer radial form a category of ‘Truth’ hashtags, which tweeters use to clarify or qualify their tweet statements by referring to them as so-called observations and facts. The ‘Humour’ and ‘Truth’ categories are inductively derived from the cluster map of Figure 2, which the radials reveal more clearly.
<table>
<thead>
<tr>
<th>Hashtag</th>
<th>Frequency</th>
<th>Hashtag</th>
<th>Frequency</th>
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<td>304</td>
</tr>
<tr>
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<td>182</td>
<td>#truth</td>
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<td>#comedy</td>
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<td>#vine</td>
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<td>#justfact</td>
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</table>

Table 1: Humour and Truth categories of hashtags and the frequencies of co-occurrence with #notracist.
Table 1 offers a means of continuing the analysis and drilling down towards further insights about hashtagged racialized talk in relation to a more nuanced grasp of what each of the two categories (‘Humour’ and ‘Truth’ hashtags) consist of. Table 1 identifies other hashtags co-occurring with #notracist, which are judged as significant in the formation of the ‘Humour’ and ‘Truth’ categories throughout the dataset.\textsuperscript{10}

At this stage of the analyses, it is productive to briefly turn our attention to the word content of tweets, (rather than only hashtags as visualised in Figure 2).

<table>
<thead>
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<td>like</td>
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<td>just</td>
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<td>guy</td>
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<td>dont</td>
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<td>lol</td>
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</table>

Table 2: Top Humour terms within the #notracist dataset
Table 3: Top Truth terms within the #notracist dataset

<table>
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<td>like</td>
<td>129</td>
</tr>
<tr>
<td>just</td>
<td>95</td>
</tr>
<tr>
<td>asian</td>
<td>72</td>
</tr>
<tr>
<td>know</td>
<td>57</td>
</tr>
<tr>
<td>guy</td>
<td>55</td>
</tr>
<tr>
<td>think</td>
<td>51</td>
</tr>
<tr>
<td>asians</td>
<td>47</td>
</tr>
</tbody>
</table>

Tables 2 and 3 reveal that the two categories 'Humour' and 'Truth' share (loosely) a 'dictionary'—a palette of seemingly common terms used in tweets as a way of doing racism-denial Twitter talk. There are a number of key terms (words) which frequently appear in both 'Humour' and 'Truth' tweets, such as: 'black', 'white', 'people', 'like' and 'just'. It seems improbable that there will be a linguistic or semantic means of consistently distinguishing between either category, for example:
Both of the tweets above, despite being located in different categories, use the key terms ‘black’ and ‘white’, and are substantively about comparable topics - differentiating between black and white people based on stereotypes of how they dance. Hence, it is difficult to see how words alone - without multi-hashtags as 'topic-markers' (Zapavigna 2015) - may provide a way of distinguishing which tweets are intended as 'jokes' and which are intended as ‘factual’ statements.

A key question at this point is: what do these mappings say about the ways people communicate race-denial content with hashtags on Twitter, given that both ‘Humour’ and ‘Truth’ categories draw upon a broadly similar set of words? Arguably, analyses so far indicate that both categories are generated by user hashtag tweeting practices, rather than only the literal content of their tweeting. It is useful to explore these practices more qualitatively by using Chorus to reduce the dataset - via filtering relevant tweets - to continue the investigation.

A distinguishing feature between the ‘Humour’ and ‘Truth’ categories is in the usage of hashtags to achieve different purposes. To demonstrate how this is visible in the data, we note that the majority of tweets featuring a ‘Humour’ multi-hashtag also feature a URL link which has an additional function of embellishing the message, for example:
It appears that ‘Humour’ hashtag usage promotes or shares an internet object of some kind – typically a Vine video or Instagram picture – and the utilisation of multiple hashtags seemingly maximises the visibility of the link. The linking (or inclusion) of visual media is a common practice amongst internet users in the sharing of online humour (Shifman and Blondheim 2010). Moreover, the juxtaposition of these kinds of humour hashtags alongside #notracist can potentially mutate both sets of hashtags: the ‘Humour’ hashtags become racially charged, and the #notracist hashtag acquires greater affiliative characteristics to construct an ‘imagined audience’. Moreover, the ‘Humour’ category is remarkable for the sheer number of multiple hashtags included in a tweet, and the hashtags themselves (alongside possible links) can become the primary ‘meaning’ (content) of the message. While the content of some of these tweets is difficult to interpret due to both a lack of meaning- and content-carrying words and an abundance of hashtags, Shawna Ross (nd.: 5) intimates: ‘as a tweet asymptotically approaches contentlessness, the resultant tendency toward abstraction denotes increasing (not decreasing) sophistication’.

Notably, there are a small set of ‘Humour’ multi-hashtags such as #lol, #haha and #loop which are frequently used together, (thus producing the central cluster observable in the hashtag map of Figure 2). The significance of the these ‘Humour’ multi-hashtags can be further explored in relation to their co-occurrence. As indicated in Table 4 below, there is a high degree of
coherence with which certain key ‘Humour’ hashtags co-occur, such as #loop and #comedy. For example, #loop features in slightly over 50% of tweets that also feature #funny. Additionally, these types of tweets pertain to objects not residing within Twitter such as Vine videos.

<table>
<thead>
<tr>
<th>Hashtag Co-occurrences with #funny</th>
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<tbody>
<tr>
<td>Multi-Hashtag</td>
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<tr>
<td>----------------</td>
</tr>
<tr>
<td>#loop</td>
</tr>
<tr>
<td>#comedy</td>
</tr>
<tr>
<td>#howto</td>
</tr>
<tr>
<td>#magic</td>
</tr>
<tr>
<td>#joke</td>
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<tr>
<td>#lol</td>
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</tbody>
</table>

Table 4: Top hashtag co-occurrences with #funny, showing the strength of relationship between #funny and hashtags to which it is most related.

‘Humour’ as type of racialized talk relies on an implicitly-agreed-upon – seemingly a priori – set of general classificatory hashtags which users recognise and draw on in order to situate their tweets as embodying racialized humour (and not, they may hope, actual racist intent). This practice of humour-based multi-hashtagging does not necessarily seek to explain the meaning of the tweet, because the hashtags themselves – as dense, self-referential meta-data (Ross, nd.) – are the tweet.
The circulation of humour on the web has become a ‘ritualized social practice’ (cf. Perez), and users of social media are well versed in its discursive conventions. The use of a relatively narrow set of multi-hashtags and inclusion of links suggest that the circulation of racist texts (tweets, images, videos etc.) is an intensely collective enterprise. The invoked ‘imagined audience’ shares the joke and participates in a racialized online culture that breaches social norms. While the distancing function of the disclaimer #notracist is present, its imbrication with humour complicates and legitimizes strategies of racism denial, and makes them more resistant to critique because of the collectivizing function of jokes via their public sharing.

In comparison, in the ‘Truth’ sub-set of the data we discover a tendency to use multi-hashtags much more sparingly, though from a much wider range of hashtag terms; and in ways which are intended to clarify or qualify the semantic content of tweets, for example:

*J3N5TT3R*: Asian guys only have two volumes, quiet and shout. The ones on the next table are stuck on shout #notracist #fact

*christophe1435*: This economics tutorial is like 95% Asian. #notracist #truth

Here, the usage of hashtags reflects a more semantic orientation to the convention, where hashtags indicate how the tweeter intends the tweet to be interpreted – their ‘stance’ – for example, as not representing any racist intent (e.g. #notracist), and justifying this disaffiliation with racism because the tweeter is stating what they argue is a defensible or observable everyday truth (e.g. #justsayin/g). Unlike the small set of general hashtags which are frequently used in ‘Humour’ tweets alongside other multi-hashtags, ‘Truth’ tweets rely on a broad range of multi-hashtags which do not co-occur with other multi-hashtags for at least two reasons. Firstly,
these multi-hashtags tend not to be used with other hashtags, and secondly, each tag tends to be used relatively few times. This gives the ‘Truth’ cluster map (Figure 2) its distinctive outer-density pattern – the wide variety of largely non-associated terms appear almost entirely disconnected (and unrelated) from each other.

It is fruitful to question why ‘Truth’ as a mode of online racialized talk of denial relies on a diverse array of largely single-use hashtags, in comparison to ‘Humour’ which draws on a relatively narrow set of hashtags that are used multiple times in tweets? The shared culture of online humour suggests that the circulation of racist texts need not require an explicit justification (e.g. #justjoking), and because for the user, the ‘imagined audience’ can be a ‘real’ one that shares the joke. In contrast, ‘Truth’-based statements include hashtags that attempt to make explicit their semantic intentions (however misplaced or ignorant). These hashtags are largely devoid of a shared online culture (apart from the possibility of #justsayin/g). As Zapavigna notes, ‘The inline nature of #tag usage opens up the possibility of play with users creating tags that are unlikely to be used as search terms and which instead seem to function to intensify the evaluation made in the tweet’ (2011: 800). This strategy of intensifying a user’s stance via adding another truth-type hashtag seeks to contain the ambiguity of racialized meanings, and legitimize the possible breaching of the backstage of privatized racism (cf. Picca & Feagin 2007; Bonilla-Silva 2010). Yet as indicated by the creation of many singular truth-type hashtags, this practice is a fraught activity. The proliferation of different 'Truth'-based justificatory hashtags is symptomatic of the dissonant registers of how race-denial is mobilised
in everyday online discourse, in which the ‘imagined audience’ in the final instance, remains largely unknown.

In summary, although the two categories, ‘Humour’ and ‘Truth’, share a lexicon - which is remarkable given how little people appear to communicate with each other in the dataset - the variations observed in the visualisations lie in the markedly different hashtagging practices that tweets in each category display. Where ‘Humour’ tweets use many multi-hashtags for propagation and dissemination of tweet (and often URL link) content, ‘Truth’ tweets use singular multi-hashtags (i.e. #notracist plus one other hashtag) in order to rhetorically clarify a potentially or purposefully ambiguous statement. Both types of tweeting practices are modulated by a racialized digital assemblage. The ‘master’-hashtag #notracist organises and racially charges other hashtags in so far as activating differential modes of racialization. In this respect, race is not simply inscribed in Twitter messages, nor can it readily de-code their meanings. Rather, modes of racialization emerge within and across tweets through the aberrant connections elicited by multi-hashtagging practices. It is the variation of these different hashtagging practices that may distinguish between the type of racialized talk being published to Twitter, such that although the tweets themselves can broadly consist of similar terms and semantic meanings, the adoption of hashtagging practices from one category or another can change the affective meaning sufficiently to situate that tweet as joke-telling and/or truth-telling. Hence, we find that racialized hashtagging on Twitter is, as a phenomenon, not solely located in the words used by individuals, but in the evaluation of words by way of
hashtagging - a techno-cultural practice within Twitter that is influenced by societal modes of racism denial.

Discussion

This essay has advanced a research process for examining an intriguing type of racially-charged social media data which is not structured temporally, but rather by an ambiguous ‘topicality’. We explored the potential of ‘non-event based’ modes of analysis for investigating racialized hashtagging as a practice, working to exploit the affiliative aspects of social media data and offering sociological insights into one of society’s fundamental concerns: race and racism.

The empirical findings of this study point to on-line strategies of racism denial being complex and diverse. In this respect, they resonate with the off-line world - after all, racism is a social phenomena which has existed long before the advent of the internet - though from the methodological standpoint of our approach, can only be adequately grasped by taking into account the technological affordances of the medium they circulate in. Otherwise, we are liable to simply import existing understanding of racism denial and fail to comprehend that online modes of communication are mutating practices of racism.

The project has relied on Chorus, a software suite for collecting and producing a range of visualisations of Twitter data. Our methodological approach has avoided fetishizing visualisations or treat them as the end-point of analysis. The endeavour has been to think with visualisations as part of an analytic process - deploying visualisations rather than merely
viewing them. Furthermore, we have grounded our analyses in our acknowledgment of the limitations and constraints of the software. Our socio-materialist approach has been a creative process involving intuitive insight and critical reflexivity, in addition to acquiring knowledge of the workings of visualisation and co-occurrence algorithms.

We have treated this research dually as a methodological enterprise and as an empirical project that informs conceptual ideas about online racism, beyond existing linguistic and text-based approaches. Our study responds to the question ‘What kind of techno-cultural assemblage is put into motion when we express ourselves online?’ (Langlois, 2011), by exploring how modes of racialization modulate and is modulated by the Twitter social media platform. We discovered that variegated informational logics and multi-hashtagging practices materialize online racialized discourse.

The study aimed to develop an original account of Twitter race-talk which demonstrates how hashtags work for users. This has been achieved by analysing multi-hashtagging by focussing on what purposes the practice of deploying more than one hashtag (i.e. #notracist plus one or more hashtag) might hold for those doing it. The resulting data visualisations and analyses suggest two principal modes of multi-hashtag usage. These modes are distinguished by their different methods of doing hashtagging. Moreover, the two multi-hashtagging practices of ‘Humour’ and ‘Truth’ closely correlate to a complex, racially-charged ‘topical’ distinction. Deploying visualisations and interrogating algorithmic data processes – and our consequent depiction of the process of doing this work – is not trivial or irrelevant to sociology’s
programme. Rather, it reveals how such processes may come to make Digital Sociology a feasible and fruitful task for social research.

**Acknowledgements**

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Notes

1 Although the Demos study discovered that some slurs are used in a non-derogatory manner aimed at a sender’s own community.

2 It is beyond the scope of this article to explore the how radicalized hashtags are produced within Twitter in relation to its range of techno-cultural assemblages (i.e. as part of a wider sphere of internet activity involving other social media services, online video or audio clips web browsers and URLs and so on, all of which may feature).

3 We do not claim to have captured a complete dataset of all tweets containing the #notracist hashtag during the time-period, because collecting data from the Twitter Search API is rate limited (number of search requests per 15 minute interval). Nonetheless, as the frequency of notracist tweets were relatively low, it is likely we captured a comprehensive set of tweets.

4 See the Chorus project website for further details and to download the software: www.chorusanalytics.co.uk

5 Our intention in introducing the timeline graph is to demonstrate how this visualisation facilitated the decision to pursue other modes of analysis.

6 All tweets have been anonymized, both in terms of their user names and the tweet content itself. Where URLs feature in tweets, key identifying characters are changed to "**".

7 The single significant display of communication - where the @mention convention (boyd, Golder & Lotan, 2010) is used to directly address other Twitter users - is visible in some Twitter users retweeting messages considered as containing racist content to the account @YesYoureRacist. This account publishes tweets which claim to be not racist yet appear to feature a racist statement of some kind.

8 Noortje Marres and Caroline Gerlitz (2015: 9) offer an important discussion of how digital sociology methodologies are innovating forms of co-occurrence/word analyses which render ‘text amenable to network analysis, whereby empirically occurring associations among words in a given data set provide an immanent criterion of relevance’. See also the work of Roberto
Franzosi (2010) for developing inductively-orientated quantitative textual analyses of large datasets.

9 As an aid to analyze the cluster map of Figure 2, the two radials have been added to the Chorus visualization by the researchers.

10 Table 1 explores each radial in turn and noting key hashtags down to a minimum frequency of 20 usages.

11 Common usage terms such as ‘like’ and ‘just’ have been included in the dataset to indicate their relative frequency in relation other more charged terms such as ‘Black’ and ‘White’. As the research focus was not on analyzing the content of tweets, only a limited ‘stop-list’ of common words was used in the analysis (that exclude terms such as ‘a’, ‘the’, ‘and’ etc.).

12 It is interesting to note the multimodality of social media and internet usage for Twitter users, which features as part of the creation of their own internet assemblages as part of a broader field of activity: Twitter users do not just use Twitter to do their tweeting. It was not within the scope of the research project investigate the content of URL (links) within tweets.

13 #loop refers specifically to videos posted on Vine, which are six seconds long and indefinitely looped such that they repeat until the viewer moves on to the next one or closes the browser/app.

14 Chorus computes collocations of terms, with co-occurrence values from 0 to 1 based on the relative frequency with which those words occur together in single tweets. The co-occurrence value is the probability, local to the dataset, of finding two terms occurring together in a tweet (where 0 equates to zero probability and 1 signifies absolute certainty).

15 To make such a claim does not the beget an analysis exploring the meaning of humour-based tweets. Rather, it points to ‘meaning’ being located in the hashtags; and only exploring these operators semantically is a limited mode of analysis of a Twitter racialized assemblage.