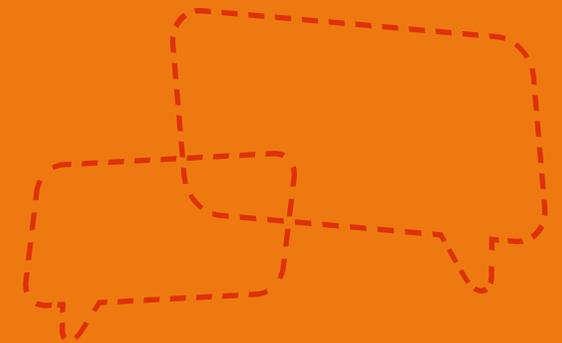




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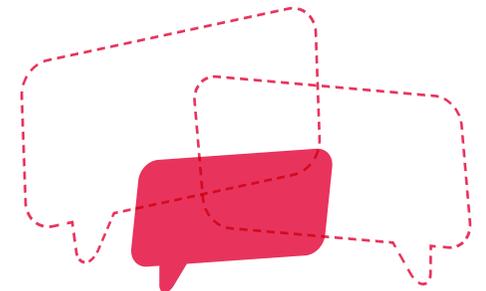
Covid-19: What are the Drivers of the Islamophobic Infodemic Communications on Social Media?



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Hollie Sutch and Harkeeret Lally

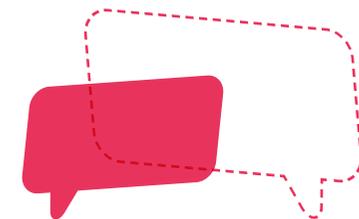
Contents

Covid-19: What are the drivers of the Islamophobic infodemic communications on social media?	1
Introduction	4
Drivers of Islamophobia and misinformation	6
Method and data collection	9
Study 1: Key findings	16
Twitter corpus linguistic analysis	16
YouTube corpus linguistic analysis	29
Study 2: Key findings	43
Study 3: Key findings	51
Twitter thematic analysis	51
YouTube thematic analysis	63
Study 4: Key findings	74
Recommendations	79
References	82
Appendices and infographics	87
Appendix A	87



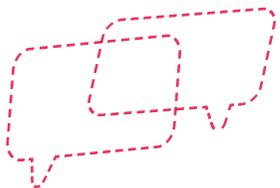
Executive Summary

- Online conditions, such as anonymity, on social media platforms like Twitter and YouTube have provided conditions that can drive and motivate Islamophobia and Covid-19 related misinformation.
- This research project consisted of four studies that examined language, sentiment, narratives, cases studies and the relationship between the online and offline Covid-19 misinformation theories and Islamophobia across Twitter and YouTube.
- Over 100,000 Tweets and over 100,000 YouTube comments were collected and analysed. Highly identifiable accounts (those with information about the users' name, location, age etc.) were engaged in Islamophobia and the spreading of misinformation, indicating the normalisation of hate during the Covid-19 pandemic.
- The YouTube Comments we collected revealed differences in how different countries, nationalism, and media sources framed issues around Muslims and Covid-19. For example, more Eurocentric videos tended to refer to Covid-19 concepts around Black, Asian and Minority Ethnic (BAME) groups, Whiteness and perceived issues around the legitimacy of Mosques and spreading the virus.
- A number of videos had increased misinformation comments around the role of Muslims supposedly spreading Covid-19 because of religious festivals such as Ramadan, and references made to the India/Pakistan conflict.
- Antisocial tweets indicated a level of enjoyment in the act of being Islamophobic or spreading related misinformation. Conversely greater anger, fear and disgust was present in prosocial tweets as these were aimed at those sharing Islamophobic content.
- A range of comments expressed joy at the suffering, death or suggested inequalities experienced by Muslims due to Covid-19 and Muslims are described as being super spreaders of the virus, receiving special treatment, whilst being unworthy of treatment.
- Nationalism was important. Some narratives made false claims about the vaccine being part of a larger Muslim plot to rule the world.
- Muslims are seen as poisonous. This depiction forms the basis of general blame in stating that Muslims are poisoning society through the spread of Islam. However, during the pandemic, it is clear how this portrayal has developed to describe them as poisonous by spreading the virus. This is evident within messages that make references to Muslims as poisonous creatures.
- A link was made between Islam and Covid-19. This theme underpins ideas that suggest that Covid-19 originated from the Quran.



Introduction

The Covid-19 'infodemic' and misinformation has had real significant consequences when it comes to social cohesion across the world. One consequence of the pandemic has been the chilling effects of online and offline conspiracy theories that have manifested on social media and in the real world. As the internet can act as an echo chamber, the Covid-19 pandemic has led to a wave of conspiracy theories connecting British Muslims, Islam and the virus in various ways. Conspiracy theories are often formed because of latent stereotypes which often link trigger events such as terrorist attacks with Muslims. As this report will highlight a series of conspiracy theories and social media posts have used British Muslims as a scapegoat for the virus by viewing them as the spreaders of the virus and that Covid-19 is just another attempt to spread Islam in Britain and across the world. The themes presented in this report highlight how different forms of Islamophobia and anti-Muslim hatred found on social media reinforce negative views about Muslims. For example, conspiracy theories around Muslims and the religious festival of Ramadan that claim it is a point where the virus is likely to spread have been used to portray Muslims as the cause for Covid-19 and have entrenched perceptions that Muslims are responsible for Covid-19. Another example of how social media can act as an echo chamber for hate is through unfounded narratives that argue ethnic minorities, and particularly Muslims, are refusing to take the Covid-19 vaccine. As a result, Covid-19 has been weaponised by the far-right and those who sympathise with this ideology to peddle hate, with such narratives quickly being able to penetrate the mainstream and become normalised.



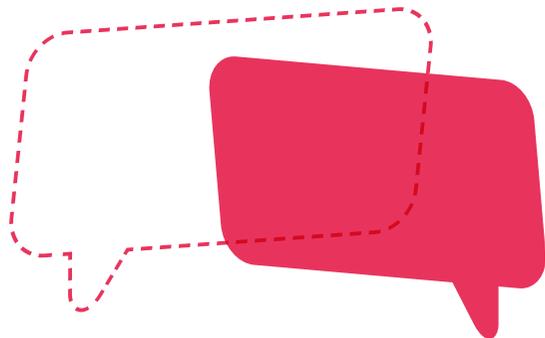
The Online Islamophobia Project was an 18 month research project that ran between June 2020 and December 2021 and examined the interaction between miscommunications and conspiracy theories in relation to key factors such as anonymity, membership length, peer groups and postage frequency, within the context of the current Covid-19 pandemic and Islamophobia on social media. The project was hosted at Birmingham City University and funded by the UKRI and Economic and Social Research Council (ESRC) under their Covid-19 rapid response call. The project explored irrational beliefs and thoughts that are disseminated on social media, covering important coverage of communications surrounding conspiracy theories online whilst paying attention to the content associated to racist 'infodemic' messages. The project also sought to provide insights into the drivers of Covid-19 narratives and consequences in fuelling existing extreme communications and Islamophobic language both online and offline.

Project aims

The Islamophobia Online Project had the following key aims:

- To discover the impact of misinformation and the 'infodemic' pandemic on social media sites (for this project the social media sites included the platforms of Twitter and YouTube).
- To understand the drivers of conspiracy theories and the relationship between online and offline extremism in relation to Islamophobia;
- To provide recommendations on the ways to reduce Islamophobic hate speech on social media platforms.

To address these aims the project's approach was to provide a snapshot of key trends in relation to anti-Muslim hatred and Islamophobia that have been circulating on social media sites (Twitter and YouTube) in relation to Covid-19. The report objectives provided an overview of how these narratives are formed and the impact both online and offline. The project entailed four studies in relation to data collection. The four stages of this project considered the role of language, expression of emotion and sentiment, performed actions (pro-social and anti-social actions), Covid-19 miscommunication and misinformation related narratives, and links not only between these online elements of miscommunication but also offline impacts.



Drivers of Islamophobia and misinformation

Existing research into online extremism has shown that psychological processes such as uncertainty, fear and perceptions of injustice (Fiske, 2013; Hogg & Adelman, 2013; Stollberg, Fritsche & Bäcker, 2015), along with online echo chambers contribute to vulnerability towards extremism. Related processes around the disinhibiting impact of being anonymous online (Suler, 2004), and the subsequent increased importance on online group identities that may be more extreme than an individual's normal position, can also drive online Islamophobia. We considered the following key aspects in our project in relation to Islamophobia and Covid-19:

- Anonymity
- Echo Chambers and time spent in online communities
- The negative impact of In-Group versus Out-Group comparisons online

Drivers of Islamophobia and misinformation

Anonymity

The lack of a real name policy means users can disseminate and access information without being identified (Peddinti, Ross, & Cappos, 2017). It has been suggested that being behind a computer compared to face to face communication provides individuals with a sense of security and anonymity, which can cause them to act differently (Peebles, 2014). This has important implications as we know that this can lead to deindividuation which is when individuals use anonymity to cause group members to fail to acknowledge themselves as individuals (Zimbardo, 1969). Research has also demonstrated that the level of extreme narrative disseminated online can be a product of a user's levels of anonymity (Zhou, Qin, Lai & Chen, 2007). The impact of anonymity was also noted by Awan, Sutch & Carter (2019), and Sutch and Carter (2019) when considering the general Islamophobic comments on Twitter. In all cases the impact of anonymity on behaviour is assumed to be explained by the Social Identity Deindividuation Effect model (Postmes, Spears & Lea, 1999). This states that not only does being anonymous carry with it a certain protection from retaliation and consequence that is disinhibiting (much like mob/riot behaviour) but that the importance of a chosen group identity starts to become more important than the individual identity. Being a good member of an online group and exhibiting ideal behaviour for that group (for acceptance) becomes more important than any personal morals or standards. This increases what is sometimes referred to as risky shift or polarisation. More extreme choices or behaviours are displayed in an attempt to take on these idealised group identities. In the case of online behaviour this could involve aggressive or discriminatory behaviour. Behaviour that would be less likely to manifest if the individual was clearly identifiable.

Time online and Echo Chambers

The internet provides a space for individuals to interact with others of similar mindsets (Bliuc, Faulkner, Jakubowicz & McGarty, 2018). When reviewing cyber-racism Bliuc et al. (2018) found that extreme far-right groups provided a means for individuals to satisfy their need for belonging (Borum, 2014) through providing a transnational community online (Bliuc et al., 2018; De Koster & Houtman, 2008; Rogers & Carter, In Press). Forums provided a space for in-groups to validate extremist ideologies through facilitating interactions between individuals holding similar ideologies (Bliuc et al., 2014). Individuals are influenced by confirmation bias (Hogg et al., 2013) and gravitate towards online echo chambers (Bessi, 2016). These online, polarized communities provide content and feedback that corroborates the individual's attitudes and beliefs – in fact, incorrect information that supports a group's beliefs is likely to be accepted, whereas correct information that runs contrary to the group's beliefs is likely to be dismissed (Bessi, 2016; Borum 2014). The echo chamber effect can be exacerbated by characteristics of right-wing ideologies, specifically with respect to distrust of government (Costello, Hawdon, Ratliff & Grantham, 2016). Right-wing individuals tend to hold anti-government attitudes which can lead to increased likelihood of exposure to extremist material online as they seek out supportive attitudes, of which there is an abundance online (Costello et al., 2016). Grounded in social learning theory (Bandura & Walters, 1977), it is likely that individuals that hold anti-government sentiments inevitably gravitate towards each other, adopting and amplifying their ideologies and increasing the likelihood of further exposure to extremist material (Costello et al., 2016).



Drivers of Islamophobia and misinformation

In-Group/Out-Group processes

Psychological vulnerabilities associated with extremism include the need for meaning, the need for belonging, and a sense of perceived injustice (Borum, 2014). Fulfilling the need for meaning allows individuals to stabilise their sense of personal identity (Borum, 2014), and reduce feelings of uncertainty associated with the sense of self (Hogg & Adelman, 2013). The strong ideologies articulated by extremist groups can provide a resolution to this uncertainty and therefore be attractive to people experiencing this (Hogg et al., 2013). The need for belonging reflects the social nature of humans and the motivation to form and maintain social relationships (Baumeister, Brewer, Tice & Twenge, 2007). The fear of exclusion may motivate individuals to join extremist groups, not because of any affinity with the ideology, but in order to gain a sense of community (Borum, 2014; De Koster & Houtman, 2008). Therefore

the process of radicalisation may have its roots in social rather than ideological groundings (Borum, 2014). In an online context the attacking of a particular group online may increase the sense of belonging to their own ingroup. Indeed Awan, Sutch and Carter (2019) found evidence to suggest feelings of pride are often evoked in online messages towards the individuals group identity, but anger and disgust to out-groups. Relating to this Stankov (2018) outlined characteristics of an extremist mindset that included social attitudes such as religiosity. Religiosity reflects beliefs regarding the existence of divine entities, and the importance of religion in society (Stankov & Lee, 2016). Given that belief in certain system could be considered to be mutually exclusive to the belief in other this would lend itself to the creation of in-group and out-group definitions, with Islam forming the out-group for some users online.



Method and data collection

Data collection - YouTube data collection and sample

A total of 112,850 comments were collected from YouTube across 46 videos. Most of these videos were uploaded at least 12-24 months prior to the point of data collection. Collectively, all videos totalled to 355 minutes of playtime, thereby giving an average video length of 7.5 minutes. Video selection was based on the use of key search terms. A detailed summary of search terms, video title, uploader account, run time of each video, and number of comments per video can be found in Table 1.

Table 1: YouTube Video Details

Search term	YouTube account	Video Name	Video category	Video length	No of comments	Upload date
Britain Solidarity Muslims	Talk Radio	Brendan O'Neill: Lib Dems fasting in solidarity with Muslims is "really creepy"	Covid + Islam / Muslims / BAME (Europe)	09:09	588	27 Apr 2020
British Muslims Covid	Patriotic Populist	Matt HanCUCK Pandering To British Muslims During Covid-19 Pandemic		01:09	65	25 Apr 2020
BAME Vaccine	Guardian News	BAME celebrities call out vaccine misinformation		03:05	595	25 Jan 2021
Racism Covid	Channel 4 News	Inequality and structural racism increased Covid death risk among ethnic minorities, report says		07:27	152	19 Oct 2020
BAME Racism Covid	BBC	Covid-19 leaked report: BAME health racism factors 'horrifying', Lammy - The Andrew Marr Show - BBC		10:18	592	14 Jun 2020
Muslim London British	London Power	Londonistan is a more Islamic city than most cities in Muslim countries		05:57	474	29 Oct 2020
Covid 19 Muslim	Guardian News	Covid-19 is 'out of control' in London, says Sadiq Khan		01:33	1317	8 Jan 2021
Mosque Covid 19	Hindustan Times	They go after churches...': Donald Trump on mosque retweet amid Covid-19		02:56	2132	20 Apr 2020
Ramadan Covid	CBS Evening News	Muslims celebrate Ramadan amid coronavirus restrictions		02:01	499	26 Apr 2020
Ramadan Coronavirus	Sky News	Coronavirus: What will Ramadan in lockdown be like?		02:39	546	23 Apr 2020
BAME Vaccine	BBC News	Covid vaccine: Should BAME groups be prioritised? - BBC Newsnight		06:54	1270	28 Jan 2021
Islam Virus	New Delhi Times	Islamic Terrorism: The other Virus		14:50	630	24 Apr 2020
Muslim Coronavirus	Sky News	10 Muslim coronavirus victims buried alongside each other		02:31	1586	11 Apr 2020
Muslim Coronavirus	OnePath Network	A Muslim's Guide to Responding to Coronavirus		02:39	1195	13 Mar 2020
Muslim Coronavirus	Muslim Central	Important Advice on Coronavirus - Mufti Menk		04:39	279	20 Mar 2020

Method and data collection

Table 1: YouTube Video Details

Search term	YouTube account	Video Name	Video category	Video length	No of comments	Upload date
Coronavirus Muslim	VOA News	Coronavirus Constrains Centuries Old Muslim Traditions	Covid + Islam / Muslims (India)	02:02	135	24 Apr 2020
Islam Coronavirus	Los Angeles Times	Coronavirus prompts Islamic Center to encourage hands-free greetings		02:54	55	7 Mar 2020
Coronavirus Ramadan	AJ+	How Coronavirus Changed Ramadan For Muslims		09:50	173	17 May 2020
Covid-19 Muslims	The Economic Times	Omar Abdullah on Covid-19 outbreak: Muslims should not be blamed for spread of virus		01:56	137	31 Mar 2020
Muslims India Coronavirus	Al Jazeera English	India Muslims targeted in attacks over coronavirus		03:02	858	2 May 2020
Muslims India Coronavirus	India Today	TikTok Videos Aimed At Misleading Indian Muslims Over Coronavirus Precautions		08:19	2517	3 Apr 2020
Islamophobia	Akkad Daily	The Proposed Definition of Islamophobia is Not Fit For Purpose	General Islam	11:58	1417	2 Oct 2019
Muslim Britain	TRT World	Muslims in Britain: Unheard voices Focal Point		25:42	1107	30 Apr 2019
Islamophobia	Pat Condell	A Cure For "Islamophobia"		03:51	1412	9 Apr 2014
Muslim Islamophobia	Al Jazeera English	Islamophobia in Europe: Why won't Poland take in any Muslims? UpFront		25:15	12019	8 Nov 2019
Muslim France	Global News	Muslim-majority countries protest against France over Prophet Muhammad cartoons		03:13	4624	28 Oct 2020
France Muslims	Al Jazeera English	Is France at war with its Muslims? Inside Story		25:50	7006	21 Oct 2020
Muslim America	Associated Press	Biden snags support from Muslim American community		01:57	1498	20 Jul 2020
Covid-19 Conspiracy	CNBC	Why People Believe Covid-19 Conspiracies	Covid-19 Conspiracy	19:30	14177	19 Jul 2020
5G Conspiracy	BBC	Viral: The 5G Conspiracy Theory by @BBC Stories - BBC		23:31	3,409	14 Jul 2020
Coronavirus Fake News	BBC Newsnight	Coronavirus: The conspiracy theories spreading fake news - BBC Newsnight		10:37	8,002	5 Mar 2020

Method and data collection

Table 1: YouTube Video Details

Search term	YouTube account	Video Name	Video category	Video length	No of comments	Upload date
Coronavirus Anti-Vaccination UK	Global News	Coronavirus: Anti-lockdown, anti-vaccination beliefs remain as UK rolls out its vaccine	Anti-Vaxx	03:50	798	7 Dec 2020
Anti-Vaxx	BBC	Coronavirus: 'We need to talk about misleading Anti-Vaxx claims' - BBC		08:46	609	20 Sept 2020
Anti-Vaxx UK	Sky News	Covid-19: Fauci fears UK Anti-Vaxxer backlash		11:21	2126	3 Dec 2020
Anti-Vaxx Pandemic	Sky News	There is no evidence of a pandemic' says Anti-Vaxxer		03:03	4614	7 Dec 2020
Anti-Vaxx UK	Sky News	Coronavirus Anti-Vaxxers react to Boris Johnson's 'nuts' jibe		02:51	774	24 Jul 2020
Anti-Vaxx UK	Sky News	Anti-Vaxx book sales surge as sellers urged to add warning tags		02:36	333	5 Mar 2021
UK Covid-19 Vaccine	The Sun	COVID-19: Anti-Vaxx myths debunked as vaccine rolled out across UK		01:55	2727	3 Dec 2020
Covid-19 Vaccine	Russell Brand	Covid Vaccine - Scepticism or Trust?		09:26	12036	3 Dec 2020
Covid-19 Britain Vaccine	Sky News	COVID-19: Half of Britons would not get a coronavirus vaccination		02:51	5133	9 Aug 2020
Anti-Vaccination Covid	BBC	Covid: Stop anti-vaccination fake news online with new law says Labour • @BBC News live - BBC		10:01	1429	15 Nov 2020
British Anti-Vaxx	NowThis News	British Anti-Vaxxers Spread Misinformation NowThis		03:19	599	10 Dec 2020
Covid Vaccine WHO	BBC News	Oxford-AstraZeneca Covid vaccine not linked to blood clots, WHO says - BBC News		02:32	1750	12 Mar 2021
Covid-19 Vaccine	Sky News	Covid-19: Ireland suspends AstraZeneca vaccine		02:17	725	14 Mar 2021
Vaccine Safety	Dr. John Campbell	International vaccine safety concerns		27:24	2448	15 Mar 2021
Vaccine Passports	BBC News	UK considers "vaccine passports" to prove Covid protection - BBC News		05:23	6283	23 Feb 2021

Method and data collection

All videos were then categorised into five categories based on the general focus and area of the content. They were: Covid + Islam / Muslims / BAME (Europe), Covid + Islam / Muslims (India), General Islam, Covid-19 Conspiracy, and Anti-Vaxx. The category of each video can be found in Table 1, while a more detailed summary of what each category focused on can be found in Table 2.

Table 2: Video Categories

Video category	Category details
Covid +, Islam / Muslims / BAME (Europe)	Videos which focused on Covid-19 in relation to Muslims / Islam / BAME within the European geographical context
Covid +, Islam / Muslims (India)	Videos which focused on Covid-19 in relation to Muslims and Islam within India
General Islam	Videos which focused mainly on the religion of Islam or the behaviour of Muslims
Covid-19 Conspiracy	Videos which focused on Covid-19 conspiracies, such as 5G and fake news
Anti-Vaxx	Videos which focused on the Covid-19 vaccine



Using data scraping methodologies, corresponding comments for each selected video were extracted using a YouTube API open-source software called YouTube Comment Suite (version 1.4.5), developed by GitHub user Mattwright324. The software enables users to download all comments for a selected video, as well as other key data metrics, such as number of comments, and video likes and dislikes.

Method and data collection

Twitter Data Collection and Sample

When employing corpus linguistic techniques there is not an agreed upon corpus size (Hiltunen, McVeigh, & Säily, 2017), although Haber (2015) suggests that when employing these methods on Twitter 200 tweets per users is generally recommended as a minimum. To identify the users that Tweets would be collected from, a word list containing 19 extreme words/phrases such as banislam and islamistheproblem was generated (see Appendix A). This word list was based on previous work (Awan, Sutch & Carter, 2019; Sutch & Carter, 2019) and past used had generated a large volume and range of user accounts to then collect general tweets from. Once user accounts were identified a selection of the most recent tweets could be collected. In order to collect the original tweet data Twitter archiving google sheet (TAGS) was used as it performs automated collection for search results from Twitter based on search terms, hashtags and even use profiles. Through this process a total of 100 Twitter accounts and 100,545 tweets were examined for the corpus linguistic analysis.



Data analysis

Corpus Linguistics

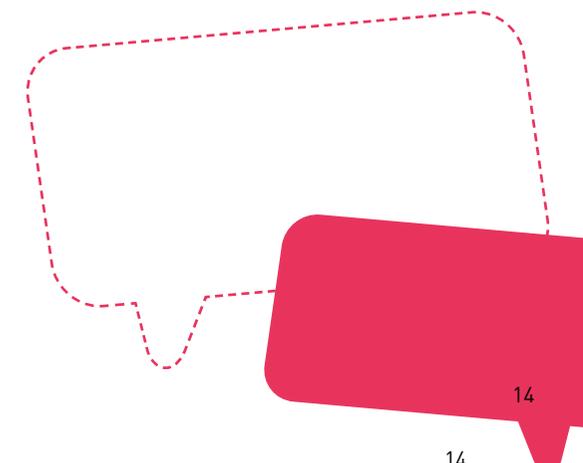
Corpus Linguistics is a text/word level approach that considers the relative frequencies of word occurrences, patterns of word/phrase usage, pairings of words within a data set, or between data sets (Biber, Conrad & Reppen, 2000; McEnrey & Hardie, 2011). These data sets, or corpora, are collections of text that can number in the millions of words, and in turn represent (or are a sample of a larger collection). It is possible to compare corpora and determine whether certain words, phrases or word pairs are occurring statistically more frequently in one corpus than another.

It is possible to determine whether certain words are more key or important within a text (used more than would be expected by chance alone) and which words are paired together (or share a certain linguistic space or distance - collocates) again beyond that expected by chance. Practically this allows for the comparisons of different sources of text to determine if language is used differently and how it's used differently. Generally, it has been used to compare author or publication styles, to investigate language around sexuality (Baker, 2018), political discourse (Orpin 2005) and has even found some forensic use.

Coulthard (2013) highlights forensic uses of Corpus Linguistic methods to compare confession statements made by prisoners and incident statements made by law enforcement to determine the likelihood of sample confessions being forced or forged. Many already existing corpora are available for analysis such as historical examples of English from select time frames, or samples from newspapers. Baker, Gabrielatos and McEnery (2012) study provides a pertinent examination of language use a corpus of British newspapers regarding the word 'Muslim'.

Such methodologies can be applied readily to online data, whether that is in the form of blog/video comments, tweets, forum posts or blog and news posts used by radical right members or those with a shared ideology.

Sutch and Carter (2019) have applied such methodologies to far-right and Islamophobic tweets, comparing the amount of Islamophobic terms across differing levels of user anonymity, membership length and posting frequency. Determining in the process that whilst Islamophobic terminology was statistically more frequent in the high anonymity users, the length of time the user had been a member on Twitter for, and how often they posted, did not have a significant relationship with the amount of Islamophobic content expressed. This approach considered over 100,000 tweets, forming a sizeable sample that would have previously been impractical to gather and analyse using traditional quantitative content analysis approaches or qualitative analysis.



Data analysis

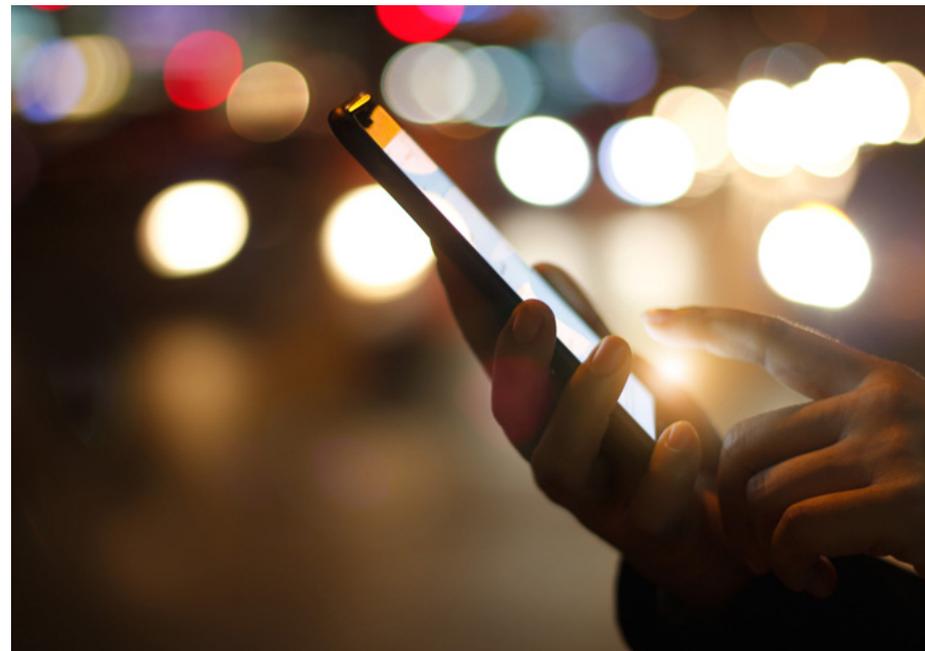
Sentiment Analysis

This approach traditionally has been used within marketing to determine the perception towards particular products, services or adverts. In its most basic form, it is the simple recording of whether a response to an item is positive or negative (the polarity) and can be done either via manual classification of responses or by using data mining and machine learning (Pang & Lee, 2008). This approach has gradually become more sophisticated with the inclusion of emotional lexicons, and specialist lexicons. These are specific dictionaries where specific terminology is given a value, for example words associated with a positive response can be given a positive value, and those with a negative response a correspondingly negative value (though there are differences to this approach depending on whether a domain dependant or domain independent approach has been taken (Crossley, Kyle & McNamara, 2016)). Comments and responses can then be parsed and a value assigned to each based on the overall sentiment expressed in that response based on the lexicon values. This can again be as simple as a positive or negative assessment but with increasing research in natural language processing, psycholinguistics and emotional valence much more subtle lexicons have been developed.

For example, EmoLex (Mohammed & Turney, 2013) is an emotional lexicon that has two broad categories (positive and negative), and eight emotional categories (anger, anticipation, disgust, fear, joy, sadness, surprise, trust) with each of these having a list of associated words (essentially synonyms and modifiers). The EmoLex when applied can then give values for the level of emotional sentiment expressed in a body of text. This gives a much more fine grained understanding of the emotional content of a response, that can be quantified and compared with greater objectivity and reliability than a qualitative or manual assessment, and importantly can be scaled across a huge volume of comments or corpora. This process can be automated by software such as the Sentiment Engine for the Analysis of Cognitive Emotion, or SEANCE, (Crossley, Kyle & McNamara, 2016).

Thematic/Content Analysis and Case Studies

Thematic Analysis was carried out according to Braun and Clarke's (2006; 2014) guidelines. This approach has been used in similar qualitative investigations of online communities (such as Attard & Coulson, 2012; Carter et al., 2021) to analyse post content in detail. A largely inductive approach was taken to ensure the coding and final themes had a strong foundation in data. This also allowed for flexibility in the potential final themes due to not being aligned to one particular theoretical stance. The intention was to approach the themes at the semantic level. The six phases outlined by Braun and Clarke (2006) were adhered to. Please see Study 3 and 4 for further detail about sampling, saturation and the development of themes/ selection of case studies.



Study 1: Key findings

Twitter Corpus Linguistic Analysis

A series of corpus linguistic analyses were conducted on 100,545 tweets from 100 Twitter users. A wordlist containing 28 words, which represented Covid-19 and Islamophobic related hashtags/search terms, was generated. A total of nine Keynes analyses were performed on the three categorical variables of anonymity, membership length and postage frequency. When looking at Keynes results it is important to note that negative Keynes values represent words which are unusually infrequent compared to words in a reference corpus (Anthony, 2004).



Study 1: Key findings

Keyness tests

Table 3: Keyness analysis for low Anonymity and suggested extreme words

Key terms	Low Anonymity comparisons					
	Low anonymity vs Moderate anonymity			Low anonymity vs High anonymity		
	Frequency value	Keyness value	Significance value	Frequency value	Keyness value	Significance value
muslimban	54	+113.3	<.0003	54	+103.58	<.0003
beingmuslimterriost	44	+92.32	<.0002	44	+113.01	<.0002
islamspreadcovid	40	+83.93	<.0002	40	+102.74	<.0002
delhiagainstjehadvioence	30	+62.94	<.0001	30	+77.05	<.0001
banjihadimedia	23	+48.26	<.0001	23	+59.07	<.0001
ihateislam	21	+44.06	<.0001	21	+53.94	<.0001
stayawayfromislam	1	-30.45	<.0001	-	-	-
bantablighijamal	-	-	-	11	+28.25	<.0001
islamiccoronajehad	-	-	-	2	-29.88	<.0001
jihadagent	-	-	-	-	-	-
jihadwatchrs	2	-30.36	<.0001	-	-	-
islamistheproblem	-	-	-	-	-	-
crushtablighispitters	-	-	-	-	-	-
islamicvirus	-	-	-	-	-	-
islamiscancer	-	-	-	-	-	-
islamisevil	-	-	-	-	-	-
coronajehad	-	-	-	-	-	-
allahisgay	-	-	-	-	-	-
coronahoax	-	-	-	-	-	-
coronajihad	-	-	-	-	-	-
covidiots	-	-	-	-	-	-
covidscam	-	-	-	-	-	-
radicalislamicterrorist	-	-	-	-	-	-
nizamuddinidiots	-	-	-	-	-	-
saynotohalal	-	-	-	45	+115.58	<.0002
banjahiljamat	-	-	-	-	-	-
islamexposed	-	-	-	-	-	-
spitting	-	-	-	5	-26.15	<.0001

Study 1: Key findings

Keyness tests

Table 4: Keyness analysis for Moderate Anonymity and suggested extreme words

Key terms	Moderate Anonymity comparisons					
	Moderate anonymity vs Low anonymity			Moderate anonymity vs High anonymity		
	Frequency value	Keyness value	Significance value	Frequency value	Keyness value	Significance value
muslimban	-	-	-	-	-	-
beingmuslimterriost	-	-	-	-	-	-
islamspreadcovid	-	-	-	-	-	-
delhiagainstjihadviolence	-	-	-	-	-	-
banjihadimedia	-	-	-	-	-	-
ihateislam	-	-	-	-	-	-
stayawayfromislam	44	+30.45	<.0001	44	+77.34	<.0001
bantablighijamal	-	-	-	-	-	-
islamiccoronajehad	-	-	-	6	-40.08	<.0001
jihadagent	-	-	-	35	+61.52	<.0001
jihadwatchrs	50	+30.36	<.0001	50	+63.66	<.0001
islamistheproblem	-	-	-	21	+36.91	<.0001
crushtablighispitters	-	-	-	1	-31.2	<.0001
islamicvirus	-	-	-	1	-25.12	<.0001
islamiscancer	-	-	-	37	+65.03	<.0001
islamisevil	-	-	-	-	-	-
coronajehad	-	-	-	-	-	-
allahisgay	-	-	-	-	-	-
coronahoax	37	+31.91	<.0001	-	-	-
coronajihad	-	-	-	-	-	-
covidiots	-	-	-	-	-	-
covidscam	110	+94.87	<.0003	110	+193.35	<.0003
radicalislamicterrorist	49	+42.26	<.0001	49	+86.13	<.0001
nizamuddinidiots	-	-	-	-	-	-
saynotohalal	-	-	-	-	-	-
banjahiljamat	-	-	-	-	-	-
islamexposed	-	-	-	-	-	-
spitting	-	-	-	-	-	-

Study 1: Key findings

Keyness tests

Table 5: Keyness analysis for High Anonymity and suggested extreme words

Key terms	High Anonymity comparisons					
	High anonymity vs Low anonymity			High anonymity vs moderate anonymity		
	Frequency value	Keyness value	Significance value	Frequency value	Keyness value	Significance value
muslimban	6	-103.58	<.0001	-	-	-
beingmuslimterriost	-	-	-	-	-	-
islamspreadcovid	-	-	-	-	-	-
delhiagainstjehadviolece	-	-	-	-	-	-
banjihadimedia	-	-	-	-	-	-
ihateislam	-	-	-	-	-	-
stayawayfromislam	-	-	-	-	-	-
bantablighijamal	-	-	-	-	-	-
islamiccoronajehad	66	+29.88	<.0001	66	+40.08	<.0001
jihadagent	-	-	-	-	-	-
jihadwatchrs	-	-	-	4	-63.66	<.0001
islamistheproblem	-	-	-	-	-	-
crushtablighispitters	-	-	-	36	+31.2	<.0001
islamicvirus	-	-	-	30	+25.12	<.0001
islamiscancer	-	-	-	58	+62.25	<.0001
islamisevil	53	+34.36	<.0001	-	-	-
coronajehad	-	-	-	38	+40.78	<.0001
allahisgay	-	-	-	37	+39.71	<.0001
coronahoax	-	-	-	-	-	-
coronajihad	-	-	-	-	-	-
covidiots	-	-	-	-	-	-
covidscam	-	-	-	-	-	-
radicalislamicterrorist	-	-	-	-	-	-
nizamuddinidiots	-	-	-	-	-	-
saynotohalal	-	-	-	-	-	-
banjahiljamat	-	-	-	-	-	-
islamexposed	-	-	-	-	-	-
spitting	79	+26.15	<.0001	-	-	-

Study 1: Key findings

Keyness tests

The tables above represent the comparisons for the three levels of anonymity. Results illustrate that the low anonymity corpus contains more words which occur significantly more frequently when compared to both the high anonymity corpus and the moderate anonymity corpus. Additionally, results depict that the high anonymity corpus contains less extreme words which occur significantly more infrequently when compared to both the low anonymity corpus and the moderate anonymity corpus. All of the keywords above appear statistically more frequently in the tweets of low anonymity users than they do in either moderate or high anonymity users, clearly suggesting that low levels of anonymity may be predictive of increased Islamophobic language use. Specifically, low anonymous users, those who are more identifiable online (characterised by a minimum of five and a maximum of seven, identifiable details) are much more likely to use extremist terms than those with high anonymity (much less identifiable, between zero and two identifiable items) to moderate anonymity (those with three to four identifiable items).



Study 1: Key findings

Keyness tests

Table 6: Keyness analysis for low membership length and suggested extreme words

Key terms	Low Membership length comparisons					
	Low membership length vs Moderate membership length			Low membership length vs High membership length		
	Frequency value	Keyness value	Significance value	Frequency value	Keyness value	Significance value
muslimban	6	-44.92	<.0001	-	-	-
beingmuslimterriost	-	-	-	-	-	-
islamspreadcovid	-	-	-	-	-	-
delhiagainstjehadvioence	-	-	-	-	-	-
banjihadimedia	-	-	-	-	-	-
ihateislam	21	+28.27	<.0001	-	-	-
stayawayfromislam	-	-	-	2	-89.68	<.0001
bantablighijamal	-	-	-	-	-	-
islamiccoronajehad	16	-27.05	<.0001	-	-	-
jihadagent	-	-	-	-	-	-
jihadwatchrs	-	-	-	8	-63.85	<.0001
islamistheproblem	-	-	-	-	-	-
crushtablighispitters	-	-	-	-	-	-
islamicvirus	-	-	-	-	-	-
islamiscancer	60	+80.77	<.0001	-	-	-
islamisevil	62	+83.47	<.0001	62	+43.56	<.0001
coronajehad	-	-	-	-	-	-
allahisgay	37	+49.81	<.0001	37	+26	<.0001
coronahoax	37	+49.81	<.0001	37	+26	<.0001
coronajihad	9	-34.18	<.0001	-	-	-
covidots	-	-	-	9	-33.4	<.0001
covidscam	-	-	-	-	-	-
radicalislamicterrorist	-	-	-	-	-	-
nizamuddinidiots	2	-67.93	<.0001	-	-	-
saynotohalal	-	-	-	-	-	-
banjahiljamat	5	-50.81	<.0001	-	-	-
islamexposed	51	+60.2	<.0001	51	+35.83	<.0001
spitting	-	-	-	-	-	-

Study 1: Key findings

Keyness tests

Table 7: Keyness analysis for moderate membership length and suggested extreme words words

Key terms	Moderate Membership length comparisons					
	Moderate membership length vs Low membership length			Moderate membership length vs High membership length		
	Frequency value	Keyness value	Significance value	Frequency value	Keyness value	Significance value
muslimban	53	+44.92	<.0001	53	+30.94	<.0001
beingmuslimterriost	44	+62.8	<.0001	44	+31.99	<.0001
islamspreadcovid	40	+57.09	<.0001	40	+29.08	<.0001
delhiagainstjehadvioence	30	+42.82	<.0001	-	-	-
banjihadimedia	23	+32.83	<.0001	-	-	-
ihateislam	-	-	-	-	-	-
stayawayfromislam	-	-	-	-	-	-
bantablighijamal	-	-	-	-	-	-
islamiccoronajehad	58	+27.05	<.0001	58	+42.16	<.0001
jihadagent	35	+49.95	<.0001	35	+25.44	<.0001
jihadwatchrs	-	-	-	6	-68.01	<.0001
islamistheproblem	-	-	-	-	-	-
crushtablighispitters	39	+55.66	<.0001	39	+28.35	<.0001
islamicvirus	-	-	-	-	-	-
islamiscancer	-	-	-	-	-	-
islamisevil	-	-	-	-	-	-
coronajehad	-	-	-	-	-	-
allahisgay	-	-	-	-	-	-
coronahoax	-	-	-	-	-	-
coronajihad	51	+34.18	<.0001	51	+37.07	<.0001
covidots	-	-	-	3	-49.02	<.0001
covidscam	-	-	-	-	-	-
radicalislamicterrorist	49	+69.93	<.0001	49	+35.62	<.0001
nizamuddinidiots	58	+67.93	<.0001	58	+42.16	<.0001
saynotohalal	45	+64.23	<.0001	45	+32.17	<.0001
banjahiljamat	55	+50.81	<.0001	55	+39.98	<.0001
islamexposed	1	-60.2	<.0001	-	-	-
spitting	-	-	-	60	+35.79	<.0001

Study 1: Key findings

Keyness tests

Table 8: Keyness analysis for high membership length and suggested extreme words

Key terms	High Membership length comparisons					
	High membership length vs Low membership length			High membership length vs moderate membership length		
	Frequency value	Keyness value	Significance value	Frequency value	Keyness value	Significance value
muslimban	-	-	-	1	-30.94	<.0001
beingmuslimterriost	-	-	-	-	-	-
islamspreadcovid	-	-	-	-	-	-
delhiagainstjehadviolece	-	-	-	-	-	-
banjihadimedia	-	-	-	-	-	-
ihateislam	-	-	-	-	-	-
stayawayfromislam	43	+89.68	<.0002	43	+102.2	<.0002
bantablighijamal	-	-	-	-	-	-
islamiccoronajehad	-	-	-	-	-	-
jihadagent	-	-	-	-	-	-
jihadwatchrs	42	+63.85	<.0002	42	+68.01	<.0002
islamistheproblem	-	-	-	-	-	-
crushtablighispitters	-	-	-	-	-	-
islamicvirus	-	-	-	-	-	-
islamiscancer	-	-	-	-	-	-
islamisevil	-	-	-	-	-	-
coronajehad	-	-	-	-	-	-
allahisgay	-	-	-	-	-	-
coronahoax	-	-	-	-	-	-
coronajihad	-	-	-	-	-	-
covidots	28	+33.4	<.0001	28	+49.02	<.0001
covidscam	-	-	-	-	-	-
radicalislamicterrorist	-	-	-	-	-	-
nizamuddinidiots	-	-	-	-	-	-
saynotohalal	-	-	-	-	-	-
banjahiljamat	-	-	-	-	-	-
islamexposed	-	-	-	-	-	-
spitting	-	-	-	1	-35.79	<.0001

Study 1: Key findings

Keyness tests

The three tables above represent the comparisons for the three levels of membership length. Results illustrate that the moderate membership length corpus contains more words which occur significantly more frequently when compared to both the low membership length corpus and the high membership length corpus. Additionally, results depict that the high membership length corpus contains less words which occur significantly more infrequently when compared to both the moderate membership length corpus and the low membership length corpus. All of the keywords above appear statistically more frequently in the tweets of moderate membership length users than they do in either low or high membership length users. Specifically, moderate membership length users (characterised by a range of between 1001 to 3000 days active) are much more likely to use extremist terms than those with low to high membership length (characterised by a range of 0 to 1000 days active or a range of 3001 to 5001 days active).



Study 1: Key findings

Keyness tests

Table 9: Keyness analysis for low postage frequency and suggested extreme words

Key terms	Low postage frequency comparisons					
	Low postage frequency vs moderate postage frequency			Low postage frequency vs high postage frequency		
	Frequency value	Keyness value	Significance value	Frequency value	Keyness value	Significance value
muslimban	6	-62	<.0001	-	-	-
beingmuslimterriost	44	+47.44	<.0001	-	-	-
islamspreadcovid	40	+43.12	<.0001	-	-	-
delhiagainstjehadvioence	30	+32.34	<.0001	-	-	-
banjihadimedia	-	-	-	-	-	-
ihateislam	-	-	-	-	-	-
stayawayfromislam	44	+39.6	<.0001	-	-	-
bantablighijamal	-	-	-	-	-	-
islamiccoronajehad	74	+79.78	<.0001	-	-	-
jihadagent	-	-	-	-	-	-
jihadwatchrs	9	-42.62	<.0001	-	-	-
islamistheproblem	-	-	-	-	-	-
crushtablighispitters	39	+42.05	<.0001	-	-	-
islamicvirus	32	+34.5	<.0001	-	-	-
islamiscancer	64	+69	<.0001	-	-	-
islamisevil	62	+66.84	<.0001	-	-	-
coronajehad	38	+40.97	<.0001	-	-	-
allahisgay	37	+39.89	<.0001	-	-	-
coronahoax	37	+39.89	<.0001	-	-	-
coronajihad	-	-	-	-	-	-
covidiots	-	-	-	-	-	-
covidscam	110	+118.59	<.0002	-	-	-
radicalislamicterrorist	-	-	-	-	-	-
nizamuddinidiots	60	+64.69	<.0001	-	-	-
saynotohalal	45	+48.51	<.0001	-	-	-
banjahiljamat	60	+64.69	<.0001	-	-	-
islamexposed	52	+56.06	<.0001	-	-	-
spitting	90	+46.75	<.0001	-	-	-

Study 1: Key findings

Keyness tests

Table 10: Keyness analysis for moderate postage frequency and suggested extreme words

Key terms	Moderate postage frequency comparisons					
	Moderate postage frequency vs low postage frequency			Moderate postage frequency vs high postage frequency		
	Frequency value	Keyness value	Significance value	Frequency value	Keyness value	Significance value
muslimban	54	+62	<.0001	-	-	-
beingmuslimterriost	-	-	-	-	-	-
islamspreadcovid	-	-	-	-	-	-
delhiagainstjihadviolence	-	-	-	-	-	-
banjihadimedia	-	-	-	-	-	-
ihateislam	-	-	-	-	-	-
stayawayfromislam	1	-39.6	<.0001	-	-	-
bantablighijamal	-	-	-	-	-	-
islamiccoronajehad	-	-	-	-	-	-
jihadagent	35	+61.28	<.0001	-	-	-
jihadwatchrs	47	+42.62	<.0001	-	-	-
islamistheproblem	-	-	-	-	-	-
crushtablighispitters	-	-	-	-	-	-
islamicvirus	-	-	-	-	-	-
islamiscancer	-	-	-	-	-	-
islamisevil	-	-	-	-	-	-
coronajehad	-	-	-	-	-	-
allahisgay	-	-	-	-	-	-
coronahoax	1	-38.56	<.0001	-	-	-
coronajihad	-	-	-	-	-	-
covidiots	-	-	-	-	-	-
covidscam	-	-	-	-	-	-
radicalislamicterrorist	49	+85.79	<.0001	-	-	-
nizamuddinidiots	-	-	-	-	-	-
saynotohalal	-	-	-	-	-	-
banjahiljamat	-	-	-	-	-	-
islamexposed	-	-	-	-	-	-
spitting	11	-46.75	<.0001	-	-	-

Study 1: Key findings

Keyness tests

Table 11: Keyness analysis for high postage frequency and suggested extreme words

Key terms	High postage frequency comparisons					
	High postage frequency vs low postage frequency			High postage frequency vs moderate postage frequency		
	Frequency value	Keyness value	Significance value	Frequency value	Keyness value	Significance value
muslimban	-	-	-	-	-	-
beingmuslimterriost	-	-	-	-	-	-
islamspreadcovid	-	-	-	-	-	-
delhiagainstjehadvioence	-	-	-	-	-	-
banjihadimedia	-	-	-	-	-	-
ihateislam	-	-	-	-	-	-
stayawayfromislam	-	-	-	-	-	-
bantablighijamal	-	-	-	-	-	-
islamiccoronajehad	-	-	-	-	-	-
jihadagent	-	-	-	-	-	-
jihadwatchrs	-	-	-	-	-	-
islamistheproblem	-	-	-	-	-	-
crushtablighispitters	-	-	-	-	-	-
islamicvirus	-	-	-	-	-	-
islamiscancer	-	-	-	-	-	-
islamisevil	-	-	-	-	-	-
coronajehad	-	-	-	-	-	-
allahisgay	-	-	-	-	-	-
coronahoax	-	-	-	-	-	-
coronajihad	-	-	-	-	-	-
covidiots	-	-	-	-	-	-
covidscam	-	-	-	-	-	-
radicalislamicterrorist	-	-	-	-	-	-
nizamuddinidiots	-	-	-	-	-	-
saynotohalal	-	-	-	-	-	-
banjahiljamat	-	-	-	-	-	-
islamexposed	-	-	-	-	-	-
spitting	-	-	-	-	-	-

Study 1: Key findings

Keyness tests

The three tables above represent the comparisons for the three levels of postage frequency. Results illustrate that the low postage frequency corpus contains more words which occur significantly more frequently when compared to both the moderate postage frequency corpus and the high postage frequency corpus. Additionally, results depict that the moderate postage frequency corpus contains more words which occur significantly more frequently when compared to high postage frequency corpus, which contains none of the extreme terms. All of the keywords above appear statistically more frequently in the tweets of low postage frequency users than they do in either moderate or high postage frequency users. Specifically, low postage frequency users (characterised by an average number of tweets per day between zero and ten) are much more likely to use extremist terms than those with moderate to high postage frequency (characterised by an average number of tweets per day between 11 and 50 or 51 and 150).

Summary

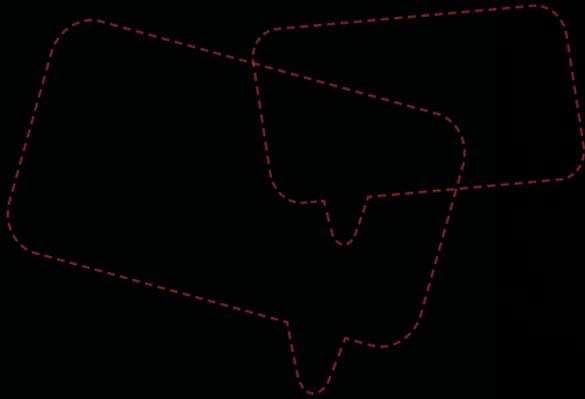
Overall the corpus linguistic analysis has demonstrated that extreme language used online relating Islamophobia and misinformation during the Covid-19 pandemic was significantly more associated with accounts that demonstrate low levels of anonymity (more identifiable, displaying five to seven identifiable items), moderate levels of membership length (1001 to 3000 days active) and low levels of postage frequency (average number of tweets per day between zero and ten).



Study 1: Key findings

YouTube Corpus Linguistic Analysis

A series of corpus linguistic analyses were conducted on 112,850 YouTube comments from a total of 46 videos, each of which were classified into one of five categories: Covid + Islam / Muslims / BAME Europe (CIMBE), Covid + Islam / Muslims India (CIMI), General Islam, Covid-19 Conspiracy, and Anti-Vaxx. A wordlist containing 84 words, which represented terms related to Covid-19 and Islamophobia was generated. A total of 10 keyness analyses were conducted comparing each category of video. When assessing keyness results, it is important to note that negative keyness values represent words which are unusually infrequent compared to words in a reference corpus (Anthony, 2004).



Study 1: Key findings

Keyness tests

Table 12: Keyness analysis for CIMBE keywords

Category comparisons								
Key terms	CIMBE vs CIMI		CIMBE vs General Islam		CIMBE vs Covid-19 Conspiracy		CIMBE vs Anti-Vaxx	
	Frequency value	Keyness value	Frequency value	Keyness value	Frequency value	Keyness value	Frequency value	Keyness value
Allah	634	+53.53	634	+465.92	634	+1658.4	634	+1658.4
App	5	-292.29	-	-	-	-	-	-
Bame	169	+79.92	169	+369.86	169	+465.4	169	+465.4
Ban	9	-694.73	-	-	-	-	-	-
Banned	7	-139.76	-	-	-	-	-	-
BBC	195	+92.22	195	+390.78	-	-	-	-
Community	53	-114.98	-	-	-	-	-	-
His	250	+55.21	-	-	-	-	-	-
India	147	-503.92	-	-	-	-	-	-
Indian	41	-241.74	-	-	-	-	-	-
Mosques	150	+62.01	-	-	150	+413.06	150	+413.06
Music	147	+69.51	147	+285.75	147	+336.19	147	+336.19
Muslims	-	-	-	-	285	+762.38	285	+762.38
Muslim	260	-131.74	260	-335.32	260	+693.84	260	+693.84
Pakistan	28	-136.6	-	-	-	-	-	-
Race	128	+51.92	-	-	-	-	-	-
Tiktok	3	-644.21	-	-	-	-	-	-
Trump	234	+87.85	234	+185.9	-	-	-	-
Vaccine	172	+55.61	172	+360.12	-	-	-	-
Videos	19	-164.37	-	-	-	-	-	-
White	147	+69.51	-	-	-	-	-	-
Ameen	-	-	110	+222.83	-	-	110	+292.05
Anti	-	-	-	-	-	-	-	-
Been	-	-	-	-	-	-	-	-
Believe	-	-	-	-	75	-302.11	75	-302.11
CNBC	-	-	-	-	-	-	-	-
Conspiracy	-	-	-	-	1	-595.3	1	-595.3
Corona	-	-	-	-	-	-	-	-

Study 1: Key findings

Keyness tests

Table 12: Keyness analysis for CIMBE keywords

Category comparisons								
Key terms	CIMBE vs CIMI		CIMBE vs General Islam		CIMBE vs Covid-19 Conspiracy		CIMBE vs Anti-Vaxx	
	Frequency value	Keyness value	Frequency value	Keyness value	Frequency value	Keyness value	Frequency value	Keyness value
Coronavirus	-	-	-	-	-	-	-	-
Countries	-	-	85	-291.89	-	-	-	-
Country	-	-	171	-297.04	-	-	-	-
Covid	-	-	208	+341.49	208	-196.1	208	-196.1
Effects	-	-	-	-	-	-	-	-
Europe	-	-	23	-259.55	-	-	-	-
Fake	-	-	-	-	33	-605.2	33	-605.2
Fear	-	-	-	-	-	-	-	-
Flu	-	-	-	-	-	-	-	-
France	-	-	4	-870.53	-	-	-	-
Freedom	-	-	-	-	-	-	-	-
French	-	-	2	-238.42	-	-	-	-
Get	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-
Had	-	-	-	-	-	-	-	-
Have	-	-	-	-	-	-	-	-
Health	-	-	-	-	-	-	-	-
Illuminati	-	-	-	-	-	-	-	-
Information	-	-	-	-	-	-	-	-
Islam	-	-	239	-600.1	239	+627.72	239	+627.72
Islamic	-	-	-	-	-	-	-	-
Islamophobia	-	-	10	-297.81	-	-	-	-
Jab	-	-	-	-	-	-	-	-
Mainstream	-	-	-	-	-	-	-	-
Media	-	-	-	-	108	-247.06	108	-247.06
Misinformation	-	-	-	-	7	-131.46	7	-131.46
News	-	-	-	-	101	-384.91	101	-384.91
No	-	-	-	-	-	-	-	-

Study 1: Key findings

Keyness tests

Table 12: Keyness analysis for CIMBE keywords

Category comparisons								
Key terms	CIMBE vs CIMI		CIMBE vs General Islam		CIMBE vs Covid-19 Conspiracy		CIMBE vs Anti-Vaxx	
	Frequency value	Keyness value	Frequency value	Keyness value	Frequency value	Keyness value	Frequency value	Keyness value
Out	-	-	-	-	-	-	-	-
Pandemic	-	-	-	-	-	-	-	-
People	-	-	-	-	699	-167.15	699	-167.15
Pfizer	-	-	-	-	-	-	-	-
Poland	-	-	1	-1427.95	-	-	-	-
Polish	-	-	-	-	-	-	-	-
Racist	-	-	-	-	146	+287.92	146	+287.92
Ramadan	-	-	107	+216.22	107	+294.62	-	-
Real	-	-	-	-	58	-123.35	58	-123.35
Refugees	-	-	3	-237.77	-	-	-	-
Religion	-	-	-	-	198	+381.74	198	+381.74
Russell	-	-	-	-	-	-	-	-
She	-	-	-	-	-	-	-	-
Take	-	-	-	-	-	-	-	-
The	-	-	-	-	-	-	-	-
Theories	-	-	-	-	1	-170.93	1	-170.93
Trust	-	-	-	-	-	-	-	-
Truth	-	-	-	-	-	-	-	-
Vaccinated	-	-	-	-	-	-	-	-
Vaccination	-	-	-	-	-	-	-	-
Vaccine	-	-	-	-	-	-	-	-
Vaccines	-	-	-	-	-	-	-	-
Videos	-	-	-	-	-	-	-	-
Virus	-	-	272	+449.69	-	-	-	-
Word	-	-	-	-	-	-	-	-
Would	-	-	-	-	-	-	-	-
You	-	-	-	-	-	-	-	-

Study 1: Key findings

Keyness tests

Table 13: Keyness analysis for CIMI keywords

Category comparisons						
Key terms	CIMBE vs General Islam		CIMBE vs Covid-19 Conspiracy		CIMBE vs Anti-Vaxx	
	Frequency value	Keyness value	Frequency value	Keyness value	Frequency value	Keyness value
Allah	634	+465.92	634	+1658.4	634	+1658.4
App	-	-	-	-	-	-
Bame	169	+369.86	169	+465.4	169	+465.4
Ban	-	-	-	-	-	-
Banned	-	-	-	-	-	-
BBC	195	+390.78	-	-	-	-
Community	-	-	-	-	-	-
His	-	-	-	-	-	-
India	-	-	-	-	-	-
Indian	-	-	-	-	-	-
Mosques	-	-	150	+413.06	150	+413.06
Music	147	+285.75	147	+336.19	147	+336.19
Muslims	-	-	285	+762.38	285	+762.38
Muslim	260	-335.32	260	+693.84	260	+693.84
Pakistan	-	-	-	-	-	-
Race	-	-	-	-	-	-
Tiktok	-	-	-	-	-	-
Trump	234	+185.9	-	-	-	-
Vaccine	172	+360.12	-	-	-	-
Videos	-	-	-	-	-	-
White	-	-	-	-	-	-
Ameen	110	+222.83	-	-	110	+292.05
Anti	-	-	-	-	-	-
Been	-	-	-	-	-	-
Believe	-	-	75	-302.11	75	-302.11
CNBC	-	-	-	-	-	-
Conspiracy	-	-	1	-595.3	1	-595.3
Corona	-	-	-	-	-	-

Study 1: Key findings

Keyness tests

Table 13: Keyness analysis for CIMI keywords

Key terms	Category comparisons					
	CIMBE vs General Islam		CIMBE vs Covid-19 Conspiracy		CIMBE vs Anti-Vaxx	
	Frequency value	Keyness value	Frequency value	Keyness value	Frequency value	Keyness value
Coronavirus	-	-	-	-	-	-
Countries	85	-291.89	-	-	-	-
Country	171	-297.04	-	-	-	-
Covid	208	+341.49	208	-196.1	208	-196.1
Effects	-	-	-	-	-	-
Europe	23	-259.55	-	-	-	-
Fake	-	-	33	-605.2	33	-605.2
Fear	-	-	-	-	-	-
Flu	-	-	-	-	-	-
France	4	-870.53	-	-	-	-
Freedom	-	-	-	-	-	-
French	2	-238.42	-	-	-	-
Get	-	-	-	-	-	-
Government	-	-	-	-	-	-
Had	-	-	-	-	-	-
Have	-	-	-	-	-	-
Health	-	-	-	-	-	-
Illuminati	-	-	-	-	-	-
Information	-	-	-	-	-	-
Islam	239	-600.1	239	+627.72	239	+627.72
Islamic	-	-	-	-	-	-
Islamophobia	10	-297.81	-	-	-	-
Jab	-	-	-	-	-	-
Mainstream	-	-	-	-	-	-
Media	-	-	108	-247.06	108	-247.06
Misinformation	-	-	7	-131.46	7	-131.46
News	-	-	101	-384.91	101	-384.91
No	-	-	-	-	-	-

Study 1: Key findings

Keyness tests

Table 13: Keyness analysis for CIMI keywords

Category comparisons						
Key terms	CIMBE vs General Islam		CIMBE vs Covid-19 Conspiracy		CIMBE vs Anti-Vaxx	
	Frequency value	Keyness value	Frequency value	Keyness value	Frequency value	Keyness value
Out	-	-	-	-	-	-
Pandemic	-	-	-	-	-	-
People	-	-	699	-167.15	699	-167.15
Pfizer	-	-	-	-	-	-
Poland	1	-1427.95	-	-	-	-
Polish	-	-	-	-	-	-
Racist	-	-	146	+287.92	146	+287.92
Ramadan	107	+216.22	107	+294.62	-	-
Real	-	-	58	-123.35	58	-123.35
Refugees	3	-237.77	-	-	-	-
Religion	-	-	198	+381.74	198	+381.74
Russell	-	-	-	-	-	-
She	-	-	-	-	-	-
Take	-	-	-	-	-	-
The	-	-	-	-	-	-
Theories	-	-	1	-170.93	1	-170.93
Trust	-	-	-	-	-	-
Truth	-	-	-	-	-	-
Vaccinated	-	-	-	-	-	-
Vaccination	-	-	-	-	-	-
Vaccine	-	-	-	-	-	-
Vaccines	-	-	-	-	-	-
Videos	-	-	-	-	-	-
Virus	272	+449.69	-	-	-	-
Word	-	-	-	-	-	-
Would	-	-	-	-	-	-
You	-	-	-	-	-	-

Study 1: Key findings

Keyness tests

Table 14: Keyness analysis for General Islam keywords

Category comparisons				
Key terms	General Islam vs Covid-19 Conspiracy		General Islam vs Anti-Vaxx	
	Frequency value	Keyness value	Frequency value	Keyness value
Allah	-	-	-	-
App	-	-	-	-
Bame	-	-	-	-
Ban	-	-	-	-
Banned	-	-	-	-
BBC	6	-870.78	-	-
Community	-	-	-	-
His	-	-	-	-
India	-	-	-	-
Indian	-	-	-	-
Mosques	-	-	-	-
Music	-	-	-	-
Muslims	1601	+2804.16	1601	+3739.71
Muslim	496	+852.32	496	+1180.12
Pakistan	-	-	-	-
Race	-	-	-	-
Tiktok	-	-	-	-
Trump	-	-	-	-
Vaccine	-	-	-	-
Videos	-	-	-	-
White	-	-	-	-
Ameen	-	-	-	-
Anti	-	-	-	-
Been	-	-	191	-328.53
Believe	183	-468.54	-	-
CNBC	-	-	-	-
Conspiracy	1	-1101.91	1	-330.32
Corona	-	-	-	-

Study 1: Key findings

Keyness tests

Table 14: Keyness analysis for General Islam keywords

Category comparisons				
Key terms	General Islam vs Covid-19 Conspiracy		General Islam vs Anti-Vaxx	
	Frequency value	Keyness value	Frequency value	Keyness value
Coronavirus	5	-404.16	-	-
Countries	857	+866.38	-	-
Country	1206	+1134.86	1206	+1654.7
Covid	22	-1462	22	-1302.76
Effects	-	-	-	-
Europe	-	-	-	-
Fake	54	-1153.59	-	-
Fear	-	-	-	-
Flu	-	-	-	-
France	1167	+1976.34	1167	+2507.03
Freedom	-	-	-	-
French	-	-	-	-
Get	-	-	306	-279.79
Government	-	-	153	-316.48
Had	-	-	-	-
Have	-	-	-	-
Health	-	-	12	-318.99
Illuminati	-	-	-	-
Information	8	-415.25	-	-
Islam	2025	+3543.22	2025	+4810.66
Islamic	-	-	457	+1073.75
Islamophobia	476	+840.89	476	+1132.51
Jab	-	-	-	-
Mainstream	-	-	-	-
Media	95	-762.92	-	-
Misinformation	-	-	-	-
News	144	-855	-	-
No	-	-	-	-

Study 1: Key findings

Keyness tests

Table 14: Keyness analysis for General Islam keywords

Category comparisons				
Key terms	General Islam vs Covid-19 Conspiracy		General Islam vs Anti-Vaxx	
	Frequency value	Keyness value	Frequency value	Keyness value
Out	-	-	-	-
Pandemic	-	-	7	-303.32
People	-	-	-	-
Pfizer	-	-	-	-
Poland	1838	+3139.49	1838	+4350.53
Polish	472	+810.09	472	+1109.4
Racist	-	-	-	-
Ramadan	-	-	-	-
Real	-	-	-	-
Refugees	-	-	-	-
Religion	1015	+1548.2	1015	+2233.53
Russell	-	-	-	-
She	-	-	-	-
Take	-	-	-	-
The	-	-	-	-
Theories	-	-	-	-
Trust	-	-	24	-533.96
Truth	-	-	-	-
Vaccinated	-	-	-	-
Vaccination	-	-	-	-
Vaccine	-	-	3	-4677.1
Vaccines	-	-	-	-
Videos	-	-	-	-
Virus	28	-1356.61	28	-721.07
Word	-	-	-	-
Would	-	-	-	-
You	-	-	-	-

Study 1: Key findings

Keyness tests

Table 14: Keyness analysis for General Islam keywords

Category comparisons		
Covid-19 Conspiracy vs Anti-Vaxx		
Key terms	Frequency value	Keyness value
Allah	-	-
App	-	-
Bame	-	-
Ban	-	-
Banned	-	-
BBC	872	+661.78
Community	-	-
His	-	-
India	-	-
Indian	-	-
Mosques	-	-
Music	-	-
Muslims	-	-
Muslim	-	-
Pakistan	-	-
Race	-	-
Tiktok	-	-
Trump	365	+287.07
Vaccine	-	-
Videos	-	-
White	-	-
Ameen	-	-
Anti	83	-422.09
Been	-	-
Believe	1128	+565.7
CNBC	215	+400.99
Conspiracy	1044	+581.82
Corona	-	-

Study 1: Key findings

Keyness tests

Table 14: Keyness analysis for General Islam keywords

Category comparisons		
Covid-19 Conspiracy vs Anti-Vaxx		
Key terms	Frequency value	Keyness value
Coronavirus	-	-
Countries	-	-
Country	-	-
Covid	-	-
Effects	67	-322.19
Europe	-	-
Fake	1423	+1315.09
Fear	-	-
Flu	-	-
France	-	-
Freedom	-	-
French	-	-
Get	-	-
Government	-	-
Had	-	-
Have	-	-
Health	-	-
Illuminati	182	+296.29
Information	-	-
Islam	-	-
Islamic	-	-
Islamophobia	-	-
Jab	4	-290.64
Mainstream	-	-
Media	1191	+595
Misinformation	-	-
News	1470	+746.31
No	-	-

Study 1: Key findings

Keyness tests

Table 14: Keyness analysis for General Islam keywords

Category comparisons		
Covid-19 Conspiracy vs Anti-Vaxx		
Key terms	Frequency value	Keyness value
Out	-	-
Pandemic	-	-
People	-	-
Pfizer	4	-363.41
Poland	-	-
Polish	-	-
Racist	-	-
Ramadan	-	-
Real	-	-
Refugees	-	-
Religion	-	-
Russell	-	-
She	1	-396.46
Take	-	-
The	428	-579.27
Theories	-	-
Trust	-	-
Truth	-	-
Vaccinated	-	-
Vaccination	22	-332.31
Vaccine	31	-326.61
Vaccines	328	-4272.89
Videos	150	-909.21
Virus	-	-
Word	-	-
Would	-	-
You	-	-

The tables above represent the keyness comparisons between each video.

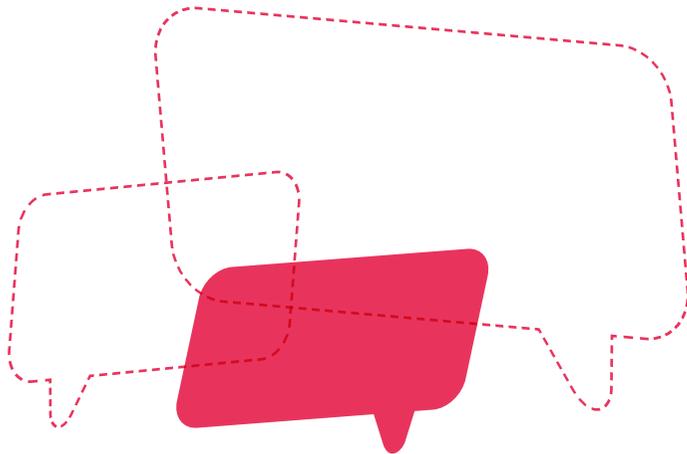
Study 1: Key findings

Summary

When comparing CIMBE to CIMI there appears to be greater emphasis on language around mosques, BAME and whiteness in the CIMBE comments. Perhaps reflecting the Eurocentric nature of those videos and the discussion that then following – discussing grievances around mosques (non-issues that were often used as sources of misinformation around being open), and the rejection or debate of the BAME/non-BAME divide in terms of Covid impact. In contrast CIMI sees a greater use of words such as ban and banned, community, and Pakistan and India. Reflecting discussion along the India/Pakistan divide, around banning Muslims due to being seen as a source of Covid infection and blaming of specific communities for increases in Covid rates. The comparison between CIMBE and General Islam reveals a focus on differences in countries with France often being cited in response to General Islam, presumably in relation to French law's on secularism. In contrast the CIMBE corpus reveals more discussion of Poland, with references to far-right influence on laws and perceptions there.

Perhaps unexpectedly when responding to videos about Covid conspiracies there is much more use of fake, misinformation, news and related terms indicating a general distrust of both media and the assumption that Covid is real. A very similar pattern exists when comparing CIMBE to Anti-Vaxx video comments. When comparing CIMI with General Islam there is notably much less discussion of countries or nationality in General Islam. Both in terms of generally talking about a 'country' and specific mentions such as France and Poland. Arguably much less nationalistic language or concepts are being expressed in response to the General Islam video types. Comparisons between General Islam and Conspiracy theories reveal more references to the BBC in the Conspiracy video type. This perhaps is an indirect indication of a distrust of the BBC as a source, though it could simply reflect the need to refer to a 'mainstream' news source to rebut via conspiracy theories. Similar to earlier comparisons General Islam video comments refer much more often to countries or country in general, and specific examples of countries like France and Poland. Perhaps supporting the idea the Covid conspiracy discourse is more global and is separate from the use of nationalism (see Awan, Sutch & Carter, 2019) as a discourse strategy for the far-right.

Interestingly when comparing Conspiracy Theory video comments to those of Anti-Vaxx there is much more use of the word Illuminati. Suggesting a call or appeal to more established conspiracy theories for Covid generally.



Study 2: Key findings

Whilst study one focused on the language in relation to YouTube comments and Tweets, and how certain terms are utilised by different users or in response to different video types, Study 2 focuses on the expression of emotion or sentiment. Using Sentiment Analysis it is possible to assign a numeric value to each individual comment or tweet, across a range of different emotional dimensions. It is then possible to compare the different range and strength of emotions being expressed by different groups, or in response to specific stimuli like videos. This allows for a more nuanced investigation of the Tweet or YouTube content, looking beyond what has been said and instead considering how it was said and what it conveys emotionally.

The sample for both the YouTube and Twitter elements of Study 2 were based on the data collected for Study 1. The YouTube sample remained in the previously selected categories. Given the Twitter findings around anonymity and membership length for Islamophobic and misinformation based tweets in Study 1. For the Twitter data the comments were assigned to categories of being either pro-social in content or anti-social in content. If they could not be assigned or were unclear they were not included resulting in a reduced overall sample size of 40,340. SÉANCE 1.2 (Crossley, Kyle & McNamara, 2017) was used to determine the emotional content/valence of each Tweet or comment. This was done using the EmoLex (Mohammad & Turney, 2013). This is an emotional lexicon that scores a comment on a decimal scale from 0 to 1, with higher scores indicating a stronger association to a particular emotional state. It focuses on eight emotion categories: Anger, Anticipation, Disgust, Fear, Joy, Sadness, Surprise, Trust.



Study 2: Key findings

Twitter Sentiment Analysis

As can be seen in table 16 there appear to be only marginal differences in the mean scores for each EmoLex category between Prosocial and Antisocial Tweets. Some larger differences can be seen in some areas with higher mean Anger, Sadness and Fear for Prosocial compared to Anti. With notably higher mean Joy for the Antisocial.

Table 16: Mean and SD EmoLex Scores for Prosocial and Antisocial Tweets

	Condition	N	Mean	Std. Deviation
Anger	Prosocial	18495	.026	.043
	Antisocial	21845	.019	.043
Anticipation	Prosocial	18495	.023	.042
	Antisocial	21845	.025	.055
Disgust	Prosocial	18495	.015	.035
	Antisocial	21845	.014	.039
Fear	Prosocial	18495	.032	.049
	Antisocial	21845	.024	.048
Joy	Prosocial	18495	.016	.039
	Antisocial	21845	.020	.053
Sadness	Prosocial	18495	.022	.038
	Antisocial	21845	.019	.044
Surprise	Prosocial	18495	.011	.031
	Antisocial	21845	.014	.041
Trust	Prosocial	18495	.044	.066
	Antisocial	21845	.041	.069

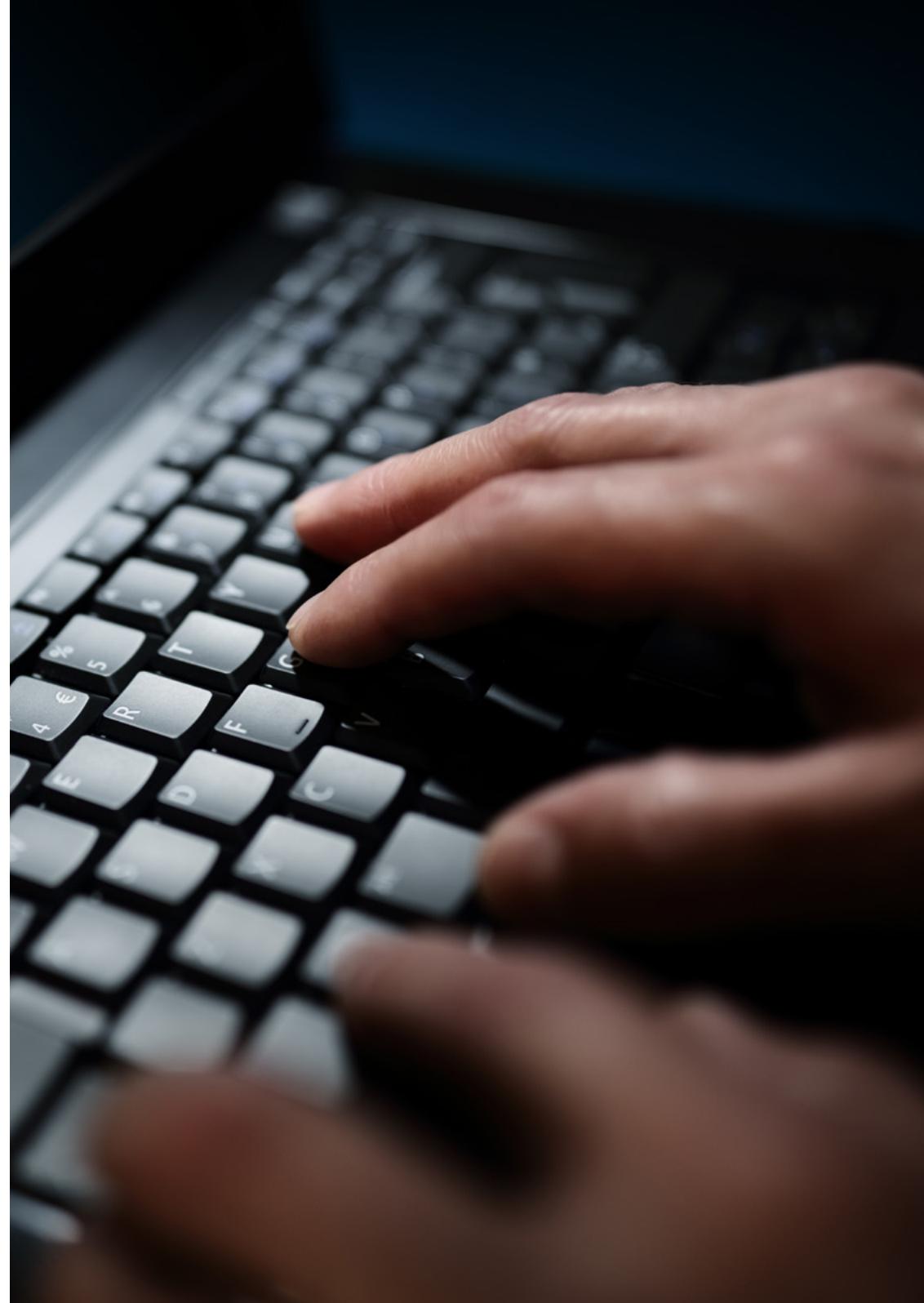
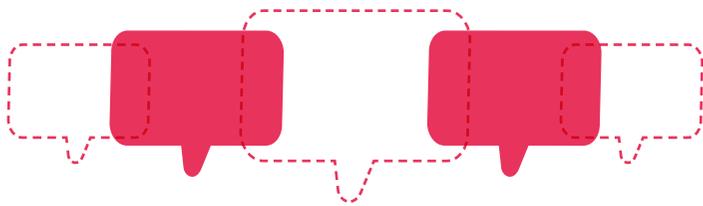
Given the independent design (IV Tweet Type: Pro or Antisocial) a series of independent t-tests were run for the eight EmoLex categories. The t-tests revealed a significant difference ($ps < .05$) in all comparisons. Reflecting significantly higher mean scores for Anger, Disgust, Fear, Sadness, and Trust in Prosocial Tweets compared to Antisocial tweets. This also reflects significantly higher means scores for Anticipation, Joy, and Surprise in Anti-social Tweets compared to Prosocial.

Study 2: Key findings

Summary

Initially these results seem counterintuitive as the supposedly positively framed prosocial tweets, tweets around combating misinformation and Islamophobia, score highly for very negative emotional states. However this appears to reflect the emotional response that prosocial tweeters are having to the negative content they encounter – that of the antisocial tweeters, spreaders of misinformation, and Islamophobes. They are directing in their comments anger towards these individuals, disgust at their behaviour and statements, fear of the impact it may have on their safety and that of others.

Contrastingly the significant inclusion of Joy in the Tweets of those considered to be antisocial potentially reflects the satisfaction taken in being contrary, either through the process of trolling or potential enjoyment in the impact their statements have. It has been noted that high scores on the Dark Triad/Tetrad (with sadism being one of the scored traits) can be associated with antisocial online behaviour (REF). If this applies in this context also it would explain the Joy and Anticipation present.



Study 2: Key findings

YouTube Comments Sentiment Analysis

As can be seen in Table 17, similar comparisons across the eight EmoLex categories have been made for the original YouTube Videos. Of potential note is the higher mean Joy and Anticipation scores for CIMBE and 2 compared to the rest.

Table 17: Mean and SD EmoLex Scores for the different YouTube Video categories

		N	Mean	Std. Deviation
Anger	CIMBE	5328	.025	.068
	CIMI	1686	.022	.058
	GENERAL ISLAM	11549	.026	.059
	C19 CONSPIRACY	9644	.024	.054
	Anti-Vaxx	16603	.023	.054
	Total	44810	.024	.057
Anticipation	CIMBE	5328	.031	.072
	CIMI	1686	.016	.047
	GENERAL ISLAM	11549	.030	.075
	C19 CONSPIRACY	9644	.023	.044
	Anti-Vaxx	16603	.026	.052
	Total	44810	.026	.060
Disgust	CIMBE	5328	.021	.073
	CIMI	1686	.023	.069
	GENERAL ISLAM	11549	.020	.058
	C19 CONSPIRACY	9644	.022	.055
	Anti-Vaxx	16603	.020	.058
	Total	44810	.021	.060
Fear	CIMBE	5328	.032	.071
	CIMI	1686	.029	.065
	GENERAL ISLAM	11549	.034	.067
	C19 CONSPIRACY	9644	.037	.059
	Anti-Vaxx	16603	.034	.061
	Total	44810	.034	.064

Study 2: Key findings

YouTube Comments Sentiment Analysis

Table 17: Mean and SD EmoLex Scores for the different YouTube Video categories

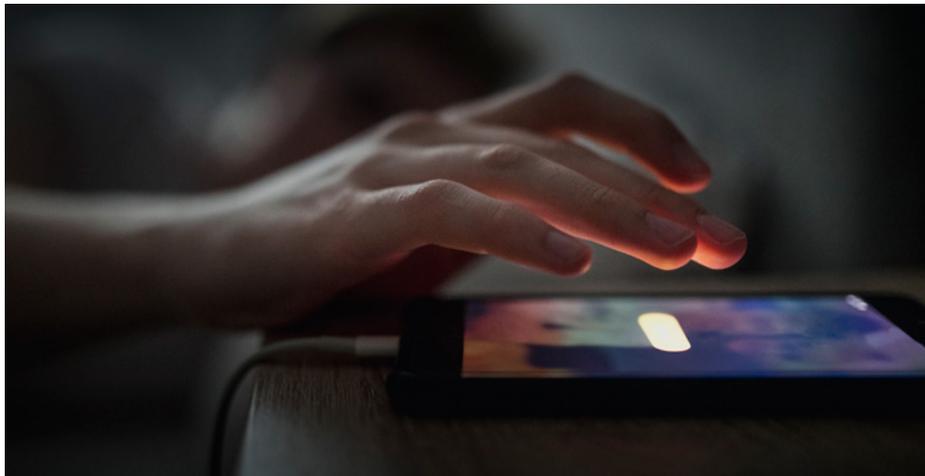
		N	Mean	Std. Deviation
Joy	CIMBE	5328	.033	.083
	CIMI	1686	.013	.041
	GENERAL ISLAM	11549	.031	.078
	C19 CONSPIRACY	9644	.014	.039
	Anti-Vaxx	16603	.018	.050
	Total	44810	.022	.061
Sadness	CIMBE	5328	.027	.072
	CIMI	1686	.019	.049
	GENERAL ISLAM	11549	.024	.056
	C19 CONSPIRACY	9644	.025	.053
	Anti-Vaxx	16603	.023	.052
	Total	44810	.024	.056
Surprise	CIMBE	5328	.017	.056
	CIMI	1686	.008	.035
	GENERAL ISLAM	11549	.017	.057
	C19 CONSPIRACY	9644	.013	.042
	Anti-Vaxx	16603	.013	.043
	Total	44810	.014	.048
Trust	CIMBE	5328	.049	.096
	CIMI	1686	.030	.064
	GENERAL ISLAM	11549	.050	.091
	C19 CONSPIRACY	9644	.038	.059
	Anti-Vaxx	16603	.037	.063
	Total	44810	.042	.075

Study 2: Key findings

An independent design was once again utilised here but this time due to the five levels of the IV (Video Type) an independent one-way ANOVA was performed for each of the EmoLex categories. Due to the extreme sample size normality was assumed. The ANOVA's revealed a significant effect for each EmoLex category ($p < .05$). A series of post-hoc Bonferroni comparisons were run to determine the direction of differences between the different levels of the IV (the video types). All report significant differences below were at the .05 level or below.

Anger

The only significant comparison for this emotional category was a significantly higher mean Anger score for General Islam compared to Anti-Vaxx. Suggesting general Islamophobia evokes greater general anger, or is a greater expression of anger than responses to Anti-Vaxx content. Those discussing Anti-Vaxx messages may be relying on or calling on different emotional responses when making arguments.



Anticipation

CIMBE had significantly higher mean Anticipation scores than CIMI, Covid-19 Conspiracy and Anti-Vaxx. General Islam had significantly higher mean anticipation scores than Covid-19 Conspiracy and Anti-Vaxx. CIMI had significantly lower mean Anticipation scores than all other video types. Covid-19 Conspiracy also had a significantly lower score than Anti-Vaxx. For the purposes of EmoLex anticipation is considered the opposite emotional/sentiment pairing to surprise. We can potentially infer this to represent to an extent acceptance or awareness of the content rather than surprise at the content, or content that is considered to be novel. In the cases above we could then argue that in response to these video types there is a greater awareness, acceptance or familiarity with the Islamophobia present in the CIMI, CIMBE and General Islam videos. Whereas there is more or less awareness, acceptance or familiarity of the content present in conspiracy or Anti-Vaxx videos.

Disgust

No significant comparisons after the Bonferroni post-hoc correction were noted.

Fear

Covid-19 Conspiracy had significantly higher mean fear scores than all other video types. Significantly lower mean fear scores were present for CIMBE compared to Covid-19 Conspiracy. CIMI likewise had lower fear scores than Covid-19 Conspiracy and Anti-Vaxx. The heightened fear in response to the Conspiracy and Anti-Vaxx videos appears to represent a mixed response from users. With some expressing fear of vaccination, government, science and broader agents behind the conspiracies. Others appear to be expressing fear in regards to damage being caused to public and personal health by the proliferation of conspiracy theories and reluctance to vaccinate.

Study 2: Key findings

Joy

CIMBE had a significantly higher Joy score than CIMI, Covid-19 Conspiracy and Anti-Vaxx. CIMI had significantly lower Joy scores than General Islam and Anti-Vaxx. General Islam had significantly higher Joy scores than Covid-19 Conspiracy and Anti-Vaxx. Covid-19 Conspiracy had significantly lower scores than Anti-Vaxx. Initially the higher Joy expressed in relation to CIMBE seems difficult to explain. However, when we consider the content of the videos in this category (such as increased Covid risks for BAME individuals, Covid related deaths of Muslims, burials, changes to Ramadan, and inequality, a potential explanation could be that of Joy in the suffering of Muslims. Covid Conspiracies and Anti-Vaxx content in this study focusses more on the harm to non-Muslims or the benefit such conspiracies have for Muslims. Or the content is focused more generally on a discussion of Covid and vaccine scepticism. There is less suffering for the target group for discrimination, Muslims in this case, and therefore less Joy expressed by any Islamophobic individuals in the YouTube comments.

Sadness

CIMBE had significantly higher sadness scores than CIMI, General Islam and Anti-Vaxx. CIMI had significantly lower sadness scores than General Islam, Covid-19 Conspiracy, and Anti-Vaxx. In a similar fashion to the Joy category the higher levels of sadness for CIMBE could reflect the more tragic content around suffering and death. Not all commenters on these videos are Islamophobic and many comments express sympathy, empathy or solidarity.

Surprise

CIMBE had significantly higher surprise scores than CIMI, Covid-19 Conspiracy, and Anti-Vaxx. General Islam has significantly higher surprise scores than Covid-19 Conspiracy and Anti-Vaxx. CIMI had significantly lower surprise scores than General Islam, Covid-19 Conspiracy and Anti-Vaxx. There are some inconsistencies with this set of results. Given the pattern of findings for Anticipation we would expect the inverse pattern here, with greater surprise being expressed in response to novel or newer conspiracy theory and Anti-Vaxx content compared to more established and experience general Islamophobia. This is an area that would benefit from more in-depth analysis of the narratives being used (see studies 3 and 4).

Trust

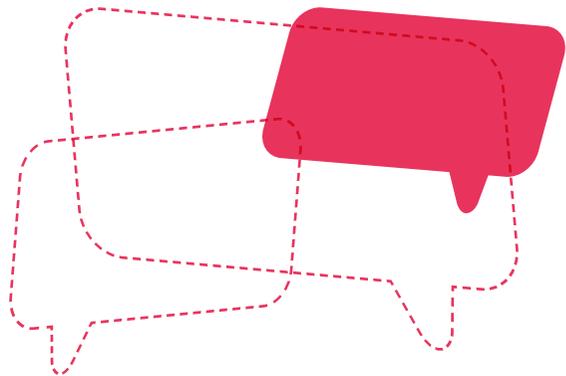
CIMBE had significantly higher trust scores than CIMI, Covid-19 Conspiracy, and Anti-Vaxx. General Islam has significantly higher trust scores than Covid-19 Conspiracy and Anti-Vaxx. CIMI had a significantly lower trust score than all over video types. Generally, these higher trust scores appear to represent a great trust or belief in the argument being used and evoked as part of the more established forms of Islamophobia. Islamophobia in relation to Covid-19 conspiracy theories and Anti-Vaxx content appears to have less traction/trust. Traditional forms of Islamophobia and the generic non-Covid related misinformation seems to be more established and accepted than the new sources/forms of misinformation and conspiracy.

Study 2: Key findings

Summary

It should be noted that when multiple post hoc comparisons are made like this there can be an increase in error (Type 1). To some extent this has been adjusted for using the Bonferroni correction, and some protection is offered by the large sample size. However, some caution is still needed when interpreting these results. A few key points do seem to emerge. General anger towards Muslims and Islam still appears to be stronger than specific anger around conspiracy and Anti-Vaxx issues. This is further reflected in both the high anticipation scores for the CIMBE category over others, and the high Joy score (if we consider this to be Joy in suffering).

There is also the suggestion of less acceptance or great novelty of Anti-Vaxx and conspiracy content as it relates to Islamophobia. Less trust has been expressed in response to this content. However, there is a great deal of fear in response to conspiracy theories and Anti-Vaxx issue. Fear is often converted into anger during far-right and extremist narratives so whilst greater anger and joy in suffering is seen in the more mainstream and general Islamophobic content and comments this could change over time.



Study 3: Key findings

This element of the research project utilised a selection of previously collected Twitter data from users who disseminated Covid-19 miscommunication, fake news narratives and Islamophobia. As previously explored, significant linguistic features were found in the language of Twitter users who displayed this type of content on Twitter, going forward it was imperative to further this analysis to look deeper into the messages and behaviours of these Twitter users. This data was therefore used to provide a comprehensive qualitative analysis to illustrate important and reoccurring themes that were present in the data set.

Design

A content analysis was conducted to produce important themes associated with the selected data set. This study utilised Tweets that were collected which represented extremist content relating to Covid-19 misinformation, fake news, and Islamophobia. This ranged from general Covid-19 conspiracies, such as 5G towers and government corruption, as well as misinformation and fake news around Covid-19, vaccines, and its origins which in turn had produced a stark increase in Covid-19 related Islamophobia online.

Participants

The data set used for this study was derived from previous tweets collected for study 1. For research designs such as this the number of participants is based on the level of data saturation. Data saturation commonly indicates that based on data that has already been collected, any further data collection would be unnecessary (Saunders et al, 2018), and would fail to produce any distinguishable new data (Sargeant, 2012). For this study, a total of 1,000 tweets were utilised, this was the point at which the data was saturated.

Materials

The comments for this thematic analysis were systematically selected from data collection for study 1, this was conducted utilising the word lists and previous criteria used during initial data collection for study 1.

Procedure

For this study, a selection of tweets from the original data set was collected. This was done using previous operationalisation methods used when collecting the original data set. This was done to ensure that the tweets collected for the case study was specifically related to content around to Covid-19 misinformation, fake news, and Islamophobia. This finalised data set was then utilised to perform a content analysis by employing thematic analysis methods to elucidate major themes that were evident in the data.

Data analysis

The chosen data analysis method for this study was thematic analysis. This was conducted using the Braun and Clarke's (2006; 2014) guidelines and stages. A thematic analysis was appropriate for this study as it provided a highly flexible approach that could be altered to suit the needs of the research, whilst providing rich and detailed as well as trustworthy and insightful findings (Braun & Clarke, 2006)



Study 3: Key findings

Key Findings

Islam and Covid-19

1. Muslims are Covid Super Spreaders

Evident in the comments were strong messages explicating that Muslims are Covid super spreaders. References were made suggesting that the origin and subsequent spread of Covid can clearly be traced back to Muslims. One of the key targets of blame amongst Muslims was the Tablighi Jamaat.

“Bro, to see him you need to open your eyes first and instead of wasting time here why can't you ask question to the maulana of #NizamuddinMarkaz Just because of #TabhleegiJamaat 189 people came covid-19 positive and few reports r yet to come. #TablighJamaat #TablighSuperSpreader”

Related to this dominant theme were an abundance of references to the tactics that Muslims have used to spread Covid-19. This includes the spitting on food, produce and people including medical staff and equipment. Comments have also elucidated how Islamic celebrations have been hotspots in furthering the spread of Covid-19.

“This Mu\$lim was caught spitting water from his mouth on fresh vegetables And thereafter police made him apologize <https://t.co/CxsFr6nggi2>”

“: They spit, they pee, they beat doctors, police.... but they are not guilty... but someone called them jahil..he is guilty and arrested... #थूक_मत_जाहलil #थूक_मत_जाहलil”

“Can't you see the PEOPLE CELEBRATING?This event celebrated the success of #CoronaJehad .And yes, they really deserve it. Afterall, much effort was put behind the same like Tablighi congregation, tablighi's spitting and urinating, stone pelting, Killing Corona warriors etc.”

“It's not “Ramadan”, this time it's “CORONADAN”, by the way these people are distributing the corona virus across social groups by spitting, defecating and urinating on edibles.”

In addition to this, narratives online have depicted Muslims as poisonous. This depiction forms the basis of general blame in stating that Muslims are poisoning society through the spread of Islam. However, during the pandemic, it is clear how this portrayal has developed to describe them as poisonous by spreading the virus. This is evident within messages that make references to Muslims as poisonous creatures. Statements were provided to distinguish Muslims and Covid-19 suggesting that Islam is a virus and that it is worse than Covid-19.

“I'm not an animal protection nut but I am appalled the UK Government has knowingly allowed Halal slaughter to become commonplace in the UK. It is patently cruel and only panders to the medieval religious Muslims who are poisoning our society. IT MUST BE BANNED. <https://t.co/SwEkhFnw4G>”

“I request jahils not to spit.Please, keep your venom away from our corona warriors#थूक_मत_जाहलil <https://t.co/BqnM0wDVbi>”

“#IslamicVirus is worst than #coronavirus Decent Scandinavians did not realize what they are bringing to their homes & their country. You don't keep “Cobra as pet” #swedenriots #Norwayriots two example from #Sweden & #Norway <https://t.co/4cw0iTcmxe>”

Linked to this are attempts to dehumanise Muslims. An important element of this theme is the effort to strip Muslims of their human identity, to cast them out as others and in particular present them as animals and vermin. This behaviour online has been used to demonstrate the living standards of Muslims, describing them as unhygienic and how their way of living inhibits social distancing. This content is an effort to further promote how Muslims are spreading coronavirus.

Study 3: Key findings

“Omg!! These filthy people live like rats! And what social distancing are they doing? They have no loyalty towards India! Islam means #terrorism #muslimvirus #muslimliars #muslims_are_terrorist #antiindia #muslimsspreadingcorona #Terrorist #lockdownindia #coronavirus #hindustan <https://t.co/XTyG447HEr>”

“She’s just another filthy #Muslim cult member who wants to wipe of the white race. She’s an evil genocidal manic that should be sent to a #muslims cesspit to live. #Satan is strong in that one and her kind. #PureEvil”

“They can not be human, They are Psycho killer .. Treat them the same... #CrushTablighiSpitters <https://t.co/tzY586vZ95>”

“Convert all the mosques to quarantine centres for these #TablighiJamaat animals”

Content found online demonstrated a similarity amongst users in relation to how to deal with Muslims who are described as super spreaders. A significant rhetoric here is that Muslims need to be punished for their behaviour during the pandemic, many accounts encourage the use of deadly force against the so called super spreaders.

“Why govt doesn’t declare that all Jamaatis who are still hiding are potential corona bombs and they will be shot at if they don’t come out in next 2 days?I am sure, all Jamaatis will be standing in a line before end of day”

“Shoot these bastard who are attacking on medical staff...#CrushTablighiSpitters <https://t.co/54hBkDZIJb>”

The rhetoric found in this theme around the dehumanisation of Muslims online concurs with research that has previously found similar behaviour online, showing how a key characteristic of hate speech online targeted towards Muslim is the tactic of dehumanisation (Awan, 2016). Research has outlined the effects of dehumanisation, whereby the persecutor experiences a reduced capacity for empathy, which can see the denial of human rights and encouragement of violence towards the dehumanised individual/group (Murrow & Murrow, 2015).



Study 3: Key findings

Key Findings

Islam and Covid-19

2. Muslims are Receiving Special Treatment during Covid-19

This theme embodies the rhetoric that during the pandemic Muslims have received special treatment, whereby they have been able to ignore Covid-19 rules and continue normal life without any restrictions that are in place for others.

“Muslim COVID spreaders get off while other Aussies are fined. Muslims seem to be a protected species in □ @DanielAndrewsMP □ CCP State VicDanistan. #BanIslam #BanDan - Q Society should be running #Victoria ! <https://t.co/MMJyHngJbY>”

Key Behaviours that signify this rhetoric includes the lack of social distancing amongst Muslims, large gatherings and still being able to attend mosques. Content suggests that there has been special rules and relaxation for Muslims, this is specifically relevant during the Holy month of Ramadan, where Muslims have been able to ignore Covid-19 and are immune to punishment from the police.

“Hundreds of Muslims seen leaving a mosque in Dublin today, Ireland remains in level 5 lockdown. It certainly seems that different rules apply to different people as when people gathered at the grave of Michael Collins to say the rosary they were dispersed <https://t.co/yc3WDXlGtZ> <https://t.co/tX9SPKfeoX>”

“But Muslims still go 300 to a mosque and taxi drivers are supper spreaders along with police.. ever muslim area has been hit the worse. So don't you think you should stop them.. no because its do as I say not as I do..!!!!”

“It's not “Ramadan”, this time it's “CORONADAN”, by the way these people are distributing the corona virus across social groups by spitting, defecating and urinating on edibles.”

“And why relaxation is given during Ramzan, Sambit ji? Is #LockdownForHindusOnly ? We sacrificed our festivals for greater good of nation and now we see PIECEFULS mocking us while they shop in herds for Ramzan.Why #StayHomeStaySafe not for them?”

Attempts to portray the disparity of treatment during Covid is reflected in comments that state that it is one rule for Muslims and another for everyone else. In addition, efforts have been made to highlight evident discrimination to Christian communities during Covid, where they are bearing the brunt of Covid-19 restrictions and punishments. Calls have been made for the government to do more and take actions against Muslims disobeying lockdown rules.

“@LeoVaradkar No Beatings For BLM OR Full mosques with 100s in attendance while christian churches remain closed. Racisim is being perpetrated against Irish people their own country. LEO you have opened the floodgates yesterday promising houses for all asylum seekers. its the last Straw.”

Study 3: Key findings

Key Findings

Islam and Covid-19

3.Hindus are Corona Warriors against Islam

This theme refers to messages that represent a collective force in India attempting to expose how Muslims are causing Covid chaos in India. This theme symbolises Hindus as corona warriors who are trying to control the virus and produce vaccines, whilst fighting against Muslims who are spreading the virus.

“Nobody hates Muslims in india, Muslims are playing the minority card because they know that they have broken rules in Delhi and caused so much chaos with corona in india and nothing else”

“I request jahils not to spit. Please, keep your venom away from our corona warriors #थूक_मत_जाहलil <https://t.co/BqnM0wDVbi>”

Hashtags such as Covid 786 have been used to signify a gathering of the Tablighi Jamaat, an event which has been blamed for the spread of Covid-19 in India. References to this have included messages that state that the behaviour of the Tablighi Jamaat is equivalent to terrorist behaviour. There have been attempts to demonstrate how India have been enduring more suffering during the pandemic. This relates to comments which state that the rest of the world are only suffering from Covid-19 whereas India is also dealing with an internal attack from corona jihad who are spreading the virus.

“Can't you see the PEOPLE CELEBRATING? This event celebrated the success of #CoronaJehad . And yes, they really deserve it. After all, much effort was put behind the same like Tablighi congregation, tablighi's spitting and urinating, stone pelting, Killing Corona warriors etc.”

“1,445 cases linked to Tablighi Jamaat event, total crosses 4,000 - India News <https://t.co/XjbpiUv0Zt>”

Messages suggest that there has been a vendetta against Hindus in India during pandemic. This is evident in comments that depict that Muslims are purposely infecting Hindus. References have been made to suggest they are experiencing a Hindu lockdown, whereby only their livelihood has been threatened by the pandemic compared to Muslims who have been above the law and ignored Covid guidelines.

“First they do #biojihad then 50 Peacefuls attacked law abiding hindu family who expressed their concerns about safety of society. This is pure terrorism. #CoronaJihad #IslamicCoronaJehad <https://t.co/uNJV8aKqHW>”

“Nothing new it's the hate which most of muslims living in india have against hindus, he was praying for 50 crore hindus to get killed by corona virus & they will make this country an islamic country.”

“Absolutely true, However, the problem is that our govt has also inclined towards appeasement. That is why, PIECEFULS are wreaking havoc on this country. #CoronaJehad #LockdownForHindusOnly”

“#islamicvirus <https://t.co/hq4NnFltcp>”

“#Islamophobia #victimCard #jihadagainsthindus #Hinduphobic #IslamicVirus #IslamicState #IslamicVictimCard Peaceful religion peaceful talks @UN <https://t.co/oqq8IBXJCF>”



Study 3: Key findings

Key Findings

Islam and Covid-19

4. Covid-19 Originated from the Quran

Throughout many of the comments there were efforts to demonstrate a link between the involvement of Islam and Covid-19. This theme underpins ideas that suggest that Covid-19 originated from the Quran.

“The origin of #Covid_19 is from Quran :- #ShaheenaBagh #protestor #CoronavirusOutbreakindia #JantaCurfewVsShaheenBagh #CoronaStopKaroNa <https://t.co/FGfqMf6eJr>”

This perspective explores the characteristics of Islam addressing the fundamental links it has to terrorism. This view has developed during the pandemic to promote ideas that suggest that Covid-19 is part of Islam’s agenda to spread hate and terror.

“@Asshole get out of India with your entire filthy community! Infesting every country and spreading hate and terror! You are intolerant of every other religion and are murderers #muslims_are_terrorist #muslims_are_hinduphobic #muslimsspreadingcorona #muslimvirus #muslimliars”

Key words such as Quran corona demonstrate the attempts to link the two. Commentators stated that Allah has guided Muslims in the spread of the virus. Metaphors have been used to further the link between Islam and Covid, in suggesting that Covid grew a beard.

“Muslim man wipes his nose and mucous on currency notes to spread #coronavirus pandemic. He claims there is no cure for #COVID19 because it is disease sent by Allah to destroy infidels. <https://t.co/gOTRI0gklf>”

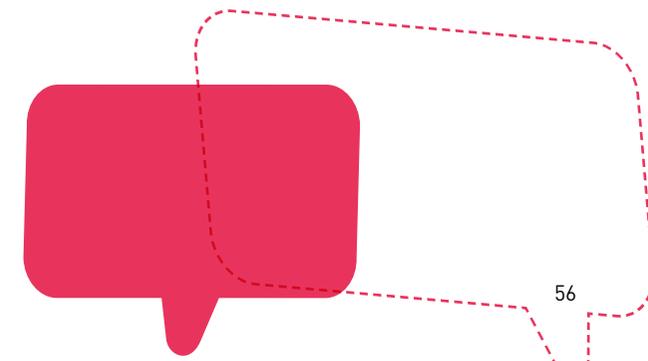
“Why are the muslims here in India acting so rudely Pelting stones on Doctors and abusing them and being distributor of Corona and stating Corona as Allah’s blessing. #IslamicCoronaJehad”

Commentators have signified the integral role mosques have played in helping the spread of the virus. Mosques have been described as a breeding ground to spread hate and terror and now Covid, through teaching radicals how to spread the virus. References have suggested how mosques are being used to hide the disease bombs. Terms such as a corona bomb have been used to further symbolise a link between Covid-19 and terrorism.

“Patna, Meerut, Nizamuddin Mosque, Sudan, Kenya, China, Indonesia, Malaysia? Clerics of Kyrgyzstan are hiding? First hide foreign disease-bombs in mosques, then spread the disease, drop dead bodies and then send the government to full vigor. #CoronaJihad”

“Why govt doesn’t declare that all Jamaatis who are still hiding are potential corona bombs and they will be shot at if they don’t come out in next 2 days? I am sure, all Jamaatis will be standing in a line before end of day”

“#CrushTablighiSpitters They act like using biological weapons like corona This Is The Serious Act of Terrorism. They Are Acting Like Suicide Attackers. <https://t.co/JUYEdfQkSs>”



Study 3: Key findings

PRO-SOCIAL ELEMENTS:

1. The epidemic of Islamophobia during Covid-19

This theme refers to pro social comments which demonstrate that there has been an epidemic of islamophobia during Covid-19. This theme highlights how the pandemic has seen a widespread influx of anti-Muslim hate, including attacks and abuse (online and offline) which has been fuelled by the media who have perpetuated Islamophobia through peddling fake news stories. Commentators have attempted to expose the failures of social media companies in adhering to their responsibility of tackling online hate.

“UP Muslim woman attacked, tonsured for marrying Dalit #UttarPradesh #India #Covid_19 #CoronaVirusUpdates <https://t.co/GdC8a5lqo0>”

“Indian Media ran 24x7 propaganda against Muslims because few cases of Covid-19 were found at Nizamuddin Markaz. Same Indian Media is silent on #ArnabGate . No outrage over Arnab and Pulwama-Balakot?? WHO was leaking state secrets to Arnab?? #AntiNationalBJPArbab”

“Modi govt wants lakhs of students to attend exams during pandemic. Same govt and its lapdog media had demonized Tablighi Jamaat for holding a meet when India had few Covid cases. Hypocrisy ki seema hoti hai. #SATYAGRAH_AgainstExamsInCovid”

This theme demonstrates a double standard in the treatment of Muslims compared to Hindus during the pandemic. This is evident in content related to Covid masks and Islamic face coverings as well as the disparity in the reactions to Hindu and Muslim celebrations that have occurred during the pandemic.

“Indian Media on Muslims: Tablighi jamaat is a “Covid Hotspot”. Muslims are “Super spreaders jihadi” Indian Media on Hindus: Kumbh Mela is a “Festival”. Hindus are “Devotees”.? #KumbhMela_CoronaHotSpot #KumbhCorona #KumbhMela2021 Indian Media is War-Monger Threat for India. <https://t.co/K1oOG0YZJZ>”

“A day before #WomensDay, Switzerland attacked the religious freedom of Muslim women by banning Islamic face covering in public spaces. Cover your face for COVID = good. Cover your face for Islam = bad. <https://t.co/9E6IHVSjYE>”



Study 3: Key findings

India chose to blame and dehumanise Muslims rather than fight Covid-19

The epidemic of Islamophobia that has been outlined by commentators has demonstrated the treatment of Muslims in India. This perspective indicates how India chose to focus on blaming and dehumanising Muslims as the expense of fighting the virus.

“The necropolitics of neoliberal state response to the Covid-19 pandemic in India: “The state enacted a violent discourse of Hindu nationalism to blame Muslims for the spread of the pandemic and to deflect attention from its abdication of responsibility.” <https://t.co/EN4jhW56HD> <https://t.co/5WzxLx7HP0>”

“Read how #Modi #BJP’s focus of exlns let the virus run rampant. BJP forgot virus doesn’t knoll only Muslims, Christians but kills Hindus equally devastatingly. Why is India seeing such a huge surge in Covid-19 cases? @BJP4India #NewIndia @AamAadmiParty <https://t.co/GSz8wWfxsD>”

Commentators express how Covid-19 has been an opportunity for the prime minister and government of India to promote their agenda. These actions have been blamed for creating a larger divide in India between muslims and Hindus

“#coronavirus is an opportunity for MODI :- 🗣️ To Jail #AntiCAA protesters, 🗣️ To increase fuel price, 🗣️ To raise propaganda against Muslim, 🗣️ To blame Tablighi jamaat for corona. #Islamophobia #MuslimTwitter <https://t.co/5WnZGus26d>”

2. Importance of creating a counter narrative to fight Islamophobia during Covid-19

A significant message amongst the pro social comments online is the need to provide a counter narrative when fighting Islamophobia online. This has particularly been expressed due to the increase in Islamophobia online during Covid-19.

“\$225 million dollars is spent in the west to spread hatred against Muslims and Islam. Therefore we need to consistently post positive stories. There are other factors to consider. Such as calling to Tawheed. Debating enemies. Dispelling myths.”

“2. Spreaders of hatred say Muslims are backwards and ignorant. Oppose this with regular content on how Muslims are benefiting humanity with knowledge and science. 3. They say Islam oppresses women. Post regular content by women on how Islam has liberated them.”

These pro social comments are promoting the dissemination of good and kind behaviour of Muslims during the pandemic. This is evident in numerous comments that highlight the good will and the help that Muslims have provided during the pandemic.

“At a time when BJP regime was hounding and scapegoating Tablighi Jamaat members, a unique work for humanity by constructing a hospital was being silently done for the people of the country by Muslims in Bengaluru.”

“#MuslimTwitter <https://t.co/mDsBdeyiVY> Branded as Cow killers, Virus Spreaders, etc., In reality Muslims save cows, conducts rituals of patients died of COVID, donate plasma after recovery. What a ungrateful people, never come to muslims aide, huh !!”

Study 3: Key findings

Islamophobia themes on social media

1. Islam is incompatible with modern day society

This theme presents arguments stating that Islam is incompatible with modern day society. Comments refer to Islam as an outdated and medieval religion, which is incompatible with modern day western societies.

“Only RT if you agree that Islam is a shite, controlling and outdated religion. <https://t.co/G0m424mmzT> <https://t.co/ESv02DWNHp>”

“@phl43 What else can we expect from Muslim ideology, stuck permanently in the 6th century”

“@pritipatel This is what happens when we pretend that Islam has a place in a civilised country”

Emphasis is placed on presenting Muslims as animals and making clear comparisons between humanity and Islam, demonstrating a continued effort to dehumanise Muslims. In addition to this, commentators also question the mentality and sanity of Muslims, presenting them as being unable to be logical, coherent, and rational beings.

“#IslamicVirus is worst than #coronavirus Decent Scandinavians did not realize what they are bringing to their homes & their country. You don't keep “Cobra as pet” #swedenriots #Norwayriots two example from #Sweden & #Norway <https://t.co/4cw0iTcmxe>”

There are many references to Islam being dangerous, describing it as a Cult that has demonic links. Additionally, Comments highlight that Islam is characterised by oppression and control, where men own women and how the burqa is a symbol of oppression.

“I dont understand y any christian nation and U.N is not intervening into this matters of centuries old churches being converted into mosques ...and what is d pope doing #Putin ... i pray this church could be saved frm deamons 😊 <https://t.co/OHgzVeVGfQ>”

“Islam is not a religion. It is a land grabbing agency/cult started by a desert dacoit named Mohammed. “Islam is path to terrorism” I am not saying this. Muslim's themselves are proving it 🇸🇦 <https://t.co/gqAxpz4SEG>”



Study 3: Key findings

2. Muslim agenda to take over

This theme discusses what many commentators refer to as the embodiment, or more simply the reality of Islam. Significant elements which underpin this theme are related to comments that suggest that Islam has an agenda, which is characterised by a drive for power and takeover.

“Exactly so why allow in those who have zero intention of integrating but instead have an openly published agenda to force compliance to their regressive and barbaric ways, ie Islam! Sheer lunacy.”

“They respect no state, this is the 4th REICH different agenda, but the same narrative. MERKEL is the leader and the architect of it all.. If she ever steps down she has achieved her plan to Islamise Europe by 2050. She has a prize from the KALEGI PLAN big wigs. <https://t.co/eL7l78wBMr>”

Comments state that Muslims strive to achieve positions of power, within government and intelligence agencies in the pursuit of Islamic dominance and takeover. Links have been made to suggest that the Quran is guiding Muslims in this pursuit of an Islamic takeover, whereby mosques are integral to the plan as this signifies Islamic territory.

“Muslim Brotherhood taking over our intelligence agencies! Hillary sold it all to Huma! They are coming after Larvita’s friends! MB owns Antifa!”

“Many feeling Britain is changing into an Islamist nation too. >Churches torched >Machete justice >Gov’t shutdown over half the UK’s pubs, most permanently. What’s next! Covid alcohol bans? >Muslim councillors allowing Mosques to blast out calls to payer at 140+db Britain is lost <https://t.co/tHojidLe2M>”

With this theme is a concern for Muslims achieving places of power within governments particularly in western countries, arguing that there is an evident conflict of interest. Whereby Muslims are ‘surely’ unable to follow and promote democracy whilst following the Quran. Further demonstrating elements of perceived incompatibility of Islam related to the previous theme.

“Just a query...how can any Muslim who follows the Koran to the letter inc Sharia, able to be a politician in a modern democracy? Surely, he is constantly at odds with what his Book tells him & the laws, customs & traditions of the country he is supposed to serve before all else?”



Study 3: Key findings

Covid-19 themes on social media:

1. The origin of Covid-19

Many of the perspectives online have provided a discussion around the origins of covid-19. Many comments have made references to the origin of Covid-19 in China, labelling it the Chinese virus.

"@KaurNimish @RedmiIndia I understand. But originally it's from China. And now, the world doesn't have trust on China because of hiding and cheating #ChineseVirus #worldfightscorona #coronavirus"

"#WuhanVirus #ChineseVirus"

A dominant element to this theme is the presence of paranoia and suspicion. This is evident in the attempts to question information that governments, the world health organisation and the media have provided, suggesting that they are concealing the truth around Covid-19.

"They are also influential in spreading the virus 🦠 and being china's puppet. The world needs to stand together and overthrow this monster! World hoax organisation! <https://t.co/NZGkOoqpfV>"



"<https://t.co/coijl5dHRA> MSM is CORRUPT 😡 From cronyism to China ties, to an unending web of lies and half-truths... Media bias doesn't begin to describe how media giants have weaponized fake news to the benefit of the left, the globalists, and the multi-national corporations!"

This theme has highlighted how commentators have attempted to demonstrate how there is more to the origin of Covid-19 than once first thought. Comments suggest that corruption has played a role in the so called 'unleashing' of the virus. Suggesting that the virus is part of an agenda, such as the push for communism.

"Right, that's it!! Can you see all the left wing narratives? Everything we stand for is simply being exterminated, everywhere with democracy ideologys, and everything democracy created. Covid-19 is just how communism spreads, but it's now part Islamic, part China!. Invasion"

"Designer virus 🦠 to destabilise the world 🌐 communism at it's best"

"COVID-19 could have emerged as part of China's military program to develop a universal antidote to bio-weapons. He believes that China already had a vaccine and were figuring out ways to "weaponize" coronavirus and make it more lethal. We know!"

This presence of suspicion and paranoia is also evident in discussion around the Covid-19 vaccine. Commentators question the efficacy and purpose of the vaccine. As well as demonstrating the failures that have been present during the vaccine rollout.

"Is that the vaccine with the tracking and sterilisation gene ? 🦠🗨️👍"

"Bill Gates: "The world is over-populated." Also Bill Gates: "Everyone should have this injection I've helped develop."

Study 3: Key findings

Covid-19 themes on social media:

2. Covid-19 social control

Many of the messages around the pandemic suggest that Covid-19 is a hoax. Prevailing messages question the reality of the Covid-19, calling into question the validity of testing methods and suggesting that infection rates and significant developments regarding the virus are false.

“The fact is we have NO idea what’s going on. WE CAN NOT TRUST OUR HEALTH EXPERTS OR THE GOVERNMENT OR THE FAKE NEWS TO TELL US THE TRUTH.”

“Just putting this here 😊😊 Top Pathologist Claims Coronavirus is “The Greatest Hoax Ever Perpetrated on an Unsuspecting Public” – Summit News <https://t.co/rCpCe0Dpim>”

These questions of validity appear to stem from a consensus of paranoia and scepticism around the government. Many claims suggest that the pandemic has exposed lies and corruption that is entrenched within the government. This had led to the beliefs that Covid-19 is being used as a form of social control, whereby the government is forcing medical coercion through techniques such as vaccine passports.

“New #VaccinePassport is not based on science or any clinical evidence. It is 100% about social control, tracking and medical coercion. All in the name of “#COVID safety.” 🗑️#EU Vaccine Passport Scheme Rejected by Some Member States, WHO Skeptical... <https://t.co/nGwDNeiGod> <https://t.co/GhoUql3q0V>”

“RT @davidkurten: Vaccine passports are the latest manifestation of medical fascism. A critical mass of people must resist now: No mask. No test. No track. No trace. No vaxx. Choose your future.”

This theme embodies concerns of an attack on free will, where choice and autonomy are being constrained. This has led to people exerting a clear defiance online to rebel from the so-called social control in which they face. Attempts to invalidate information around Covid as well as dispute the need for Covid restrictions has played a key role in this defiance. This type of behaviour online during the pandemic has become entangled with misinformation and conspiracy theories. Conspiracy theories around politics are becoming more and more common. The degree of individual agency in the dissemination of conspiracy theories on social media, has meant that during a time of decline in political trust, participation is easier to access and provides a more engaging alternative to mainstream forms of participation in political discussion (Dacombe, 2021). Therefore, resulting in more diverse and ‘seemingly’ plausible political ideas and theories, which ultimately form conspiracy theories.



Study 3: Key findings

YouTube Thematic Analysis

This stage of the research project utilised a subset of data from the previously collected YouTube comments detailed in Study 1. A more detailed analysis of linguistic features was to be conducted on this subset of data, primarily to reveal commenter attitudes and perceptions on Covid-19, Islam and the Muslim community, and the dissemination of misinformation. As such, the present analysis was to provide a comprehensive summary and illustration of the significant and reoccurring themes, attitudes, and commenter perspectives present in the data set. Furthermore, the output of this analysis would assist in the forthcoming analysis of how the circulation of online content and attitudes corresponded to offline behaviour.

Design

A small sub-set of YouTube comments were extracted from the main data set to provide a representative sample that could be qualitatively analysed for insight into themes, perspectives, and attitudes expressed by commenters towards a range of topics, such as those which focused on Covid-19, misinformation, fake news, conspiracy theories, and Islamophobia.

Participants

The number of participants used in the present study was a smaller representative subset of comments from the main data set, which was based on acceptable levels of data saturation. Saunders et al (2018) note that collection of data beyond a given point may fail to produce any additional insights, thus may result in negligible data collection and management (Sargeant, 2012), As such, 1000 YouTube comments from the larger 112850 were extracted and considered the point at which data was acceptably saturated.

Materials

The description of materials used in the present study can be categorised as relating to comment scraping or data analysis. In terms of comment scraping, YouTube comments were scraped using a YouTube API open-source software called YouTube Comment Suite (version 1.4.5), developed by GitHub user Mattwright324. The software enables users to download all comments for a selected video, as well as other key data metrics, such as number of comments, and video likes and dislikes. In terms of data analysis, the Microsoft Office package was used, within which software such as Word and Excel were used for a range of different processes (such as data cleaning and comment filtering by keywords).

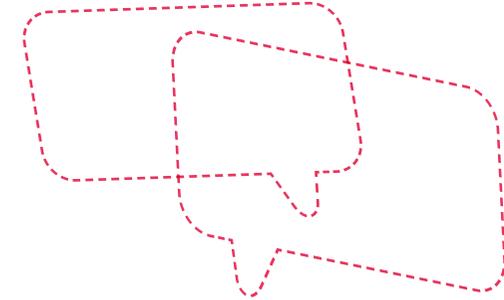
Procedure

Considering the concept of data saturation and data management, the subset of data analysed in the present study totalled 1000 comments. As detailed in Study 1, all 46 videos were sorted into one of five video categories (see Table 1). A total of 200 comments were then extracted from each video category (thereby equally fulfilling the 1000 comment quota). However, as each category varied in the number of videos they were comprised of, the number of comments to be extracted from each video differed. The formula used to calculate the number of comments to be extracted from each video was to divide 200 by the total number of videos in each category. Table 1 details the average number of comments that were extracted from each video (as per the broader category in which the video was sorted).

YouTube



Study 3: Key findings



YouTube Thematic Analysis

Table 18: Number of videos per category

Category	Number of videos	Average number of comments per video
Covid + Islam / Muslims / BAME (Europe)	18	11
Covid + Islam / Muslims (India)	3	65
General Islam	7	29
Covid-19 Conspiracy	3	65
Anti-Vaxx	15	13

Determining which comments were to be extracted from each video was based on filtering comments which contained a given keyword (based on the video category and general focus), to ensure that comments analysed were relevant to the scope and interest of the project. Table 2 outlines which keywords were used for comment filtering as per video category and title. Instances where the number of filtered comments exceeded the number of comments required to be extracted from each video (Table 1), an additional formula of total number of filtered comments divided by number of comments to be extracted was used. For example, with the “Anti-Vaxx” category requiring 13 comments per video, following the filtering of keywords outlined in Table 2, approximately 130 comments were identified for a given video. In this case, 130 was divided by 13, reaching the number 10, therefore every 10th comment was extracted. The finalised subset of comments was then subject to a content analysing using a thematic analysis approach (Braun and Clarke, 2006).

Table 19: Keywords used for comment extraction

Category	Example keywords used for comment extraction*
Covid + Islam / Muslims / BAME (Europe)	Muslim + Islam + Britain + BAME + Racist
	Mosque + Jihad + Covid + Coronavirus + Ethnic
Covid + Islam / Muslims (India)	Muslim + Virus + Islam + Spit + Jihad
General Islam	Mosque + Islam + Jihad + Racism + Cancer + Evil + Radical
Covid-19 Conspiracy	Depopulation + Government + 5G
Anti-Vaxx	Conspiracy + Government + 5G + Vaccine + Anti + Depopulation + Trust + Plandemic + Fake

*Note: each keyword is separated by a + sign.

Study 3: Key findings

Data analysis

The subset of data was analysed using thematic analysis using the Braun and Clarke's (2006; 2014) guidelines and stages.

Findings and discussion

An overwhelming majority of the YouTube comments were negative, with the analysis revealing six key themes, each of which were distinct in topic focus but possessed clear links and relationships between them. Given the revolving nature of the comments to the YouTube videos, each of the themes encapsulated an array of attitudes towards six key areas: Attitudes towards government and state authorities, Attitudes towards conspiracies, Attitudes towards Covid, Attitudes towards BAME, Attitudes towards Muslims and Attitudes towards Islam.

Theme 1: Attitudes towards government and state authorities

Commenters tended to adopt a critical attitude towards state authorities, and often called into question the agenda or motive behind many of the decisions taken by the government during the pandemic.

Sub-Theme: Mistrust

A strong emphasis of most comments conveyed mistrust in the government, health authorities, and mainstream and social media. One such example was the alleged governmental signing of non-liability clauses that suggested a double standard of advocacy for vaccination, but also doubt on whether the vaccine was safe:

“... they are asking people to Trust Vaccines, which none of Manufactures Governments Trust hence agreeing signing non Liability Clauses in case of Deaths or Injuries in order to avoid any responsibilities...”

Similar attitudes were expressed, where one commenter called into question the confidence the government possess towards the vaccines, by alleging that the government had exempted all vaccine manufacturers from any vaccine-related litigation:

“The government is so confident that vaccines do not hurt people, that they made all vaccine company's exempt from lawsuits!!”

Comments also indicated mistrust for health authorities, such as the World Health Organisation, with reference being made to unspecified previous instances where the organisations were sued for lying and spreading misinformation:

“...the W.H.O. (World Health Organization) as well as the C.D.C. (Center for Disease Control) have both already been proven sued for lying about Covid-19, the actual tests to test for Covid when created was never created to even test for infectious diseases, to the true fact that 99% of true covid cases recover completely on thier own without any medicine (I myself being on of those cases)”

Significant mistrust was also expressed towards mainstream media outlets, with comments ranging from historical examples of inaccurate or unsubstantiated reporting, to cover-ups, internal corruption, and misdirection of public attention. For example, one commenter referred to the role of mainstream media in the reporting of the 2003 Iraq war, with reference to weapons of mass destruction:

“... The last three decades of lies has eroded any trust that I have in any mainstream media. Im still waiting for the WMDs to be found...”

Similar attitudes of mistrust were expressed with reference made to the 9/11 terrorist attack:

“How about how the BBC reported the collapse of World Trade Center Building Seven fell a half hour before it actually did on 9/11. Talk about fake news.”

Study 3: Key findings

Sub-Theme: Misinformation

A key concern of commenters that comprised their mistrust for mainstream and social media was the presence of misinformation and misleading reporting, characterised by perceived propaganda and fake news. For example, the mainstream media coverage of the Covid-19 vaccine rollout was interpreted as propaganda:

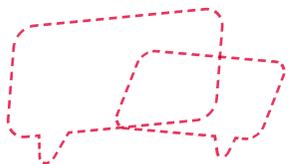
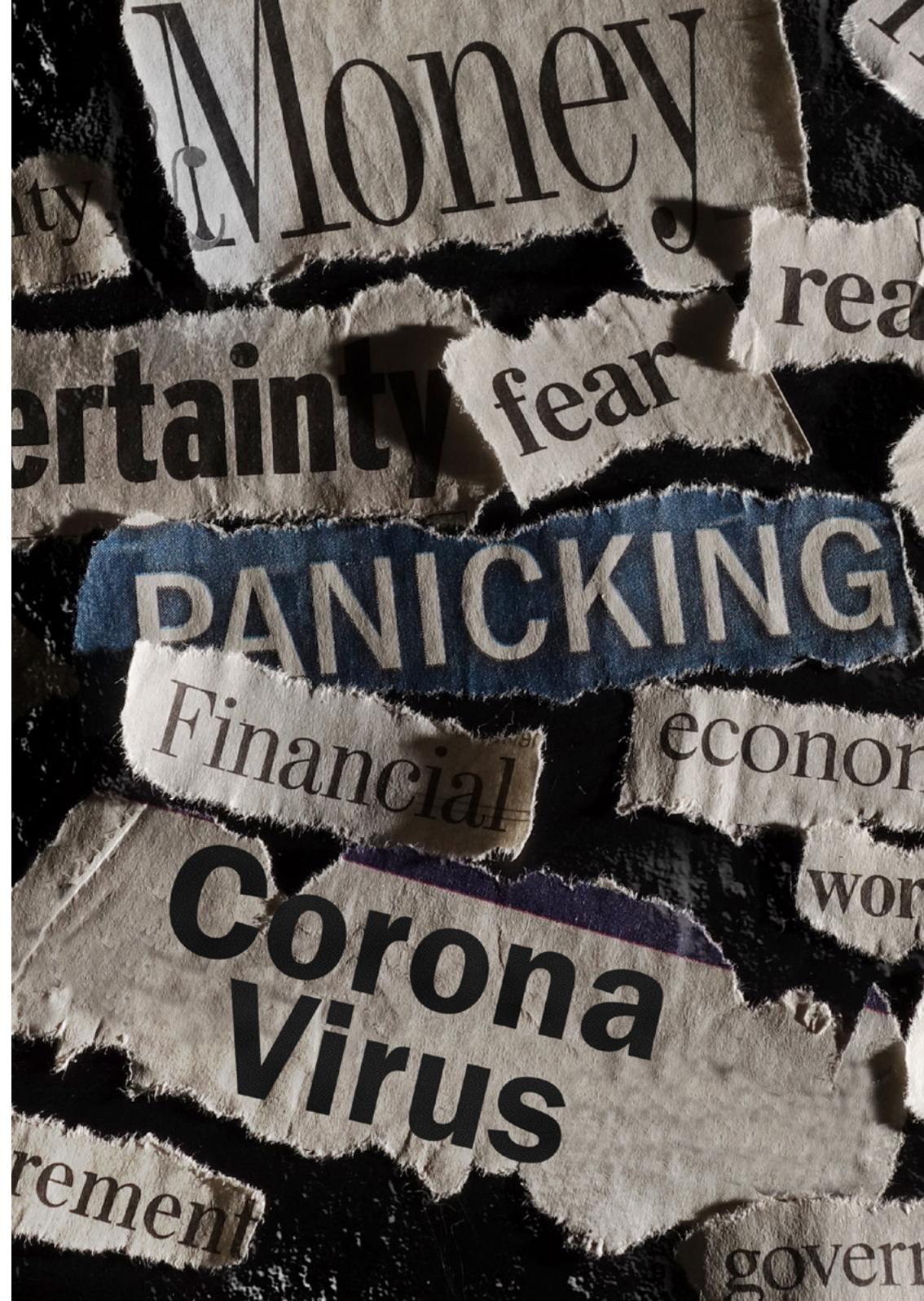
"...Why do the BBC keep pushing propaganda.. This fake news outlet should be taken down.. Tell the people the truth .. These vaccines are killing people thats why they've stopped the roll out People please do your own research..."

The coverage of the NHS's ability to withstand the toll of the pandemic and rise in cases was also regarded as misleading:

"My job entails speaking with NHS staffing departments and they told me the government covid deaths must be wrong. Also they confirmed the hospital have only been at a maximum capacity of 40%."

Commenters expressed similar attitudes towards social media, however in contrast to the general attitude towards mainstream media (a corrupt institution that reports an official narrative that is misleading), the attitude towards social media was that misinformation took the form of contrarian and anti-establishment perspectives:

"The problem with anti vaccination believers is they will believe Joe bloggs (with no scientific background) peddling unbelievable conspiracy theories on social media"



Study 3: Key findings

Sub-Theme: Perceptions of conspiracy proponents

At a closer look, the data also revealed both support and rejection for conspiracy proponents, with supporting comments drawing attention to the discrediting of alternative perspectives, while rejecting comments focusing on the characteristics of conspiracy proponents:

Supporting

Comments which conveyed support or sympathy for proponents of conspiracy theories tended to focus on the way in which alternative perspectives are criticised or derided by mainstream society, which in some cases was interpreted as mainstream society's attempt at covering the conspiracy up, or evidence for the conspiracy to be real:

“Any legitimate questions which they refuse to answer they call conspiracy theories.”

“nothing is a conspiracy theory. people who say that are hiding something.....”

The recognition and ridicule of conspiracy theory was also interpreted as evidence of existence:

“Such conspiracy theory but isnt it funny how they all keep bringing it up? Think if this way see if the conspiracy theories were jst tht why do they feel the need to keep addressing it would it not be more effective to jst ignore the crazy conspiracy theorists instead of feeding into their crazy conspiracies? Ud think so wudnt u?...”

Rejecting

Compared with supporting comments for proponents of conspiracy theories, rejecting attitudes were much more frequently expressed within the data. Mainly, rejection for conspiracy focused on attacking the personal characteristics of proponents, the harm conspiracy proponents cause to broader society, and that they are paid to spread disinformation.

The public harm caused by proponents was also discussed, with commenters highlighting the danger associated with the spread of misinformation during the pandemic:

“...hasn't to take responsibility for the deaths they cause...”

“...The deniers are virus enablers need arresting for the part they play in the deaths of so many 😞”

Speculation on the motives of conspiracy proponents also emerged in the data, with commenters often citing individual pleasure or gratification, and monetary reward as the reasons for why conspiracy misinformation was maintained and shared:

“...Some are doing it deliberately and are getting off on the fear they are causing. Conspiracy theorists are conspiring to create fear and confusion...”

“...Maybe those trolls are paid to spread disinformation.”



Study 3: Key findings

Theme 2: Attitudes towards BAME

Theme 4 was the first theme wherein specific reference and observation was made on how the Black, Asian and minority ethnic UK demographic responded to the pandemic, with specific focus targeted towards perceptions of the BAME community, health inequalities, and potential health priority.

Sub-Theme: Perceptions of BAME community

Several comments expressed disapproval for the term BAME, citing it was offensive, divisive, and regressive:

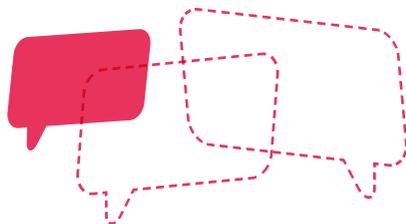
“BAME is so offensive. We should not be using that acronym it’s going backwards”

“BAME PEOPLE??? WE ARE ALL HUMAN BEINGS STOP HIGHLIGHTING THE FACT PEOPLE AREN’T WHITE!!! DO YOU EVER INTRODUCE PEOPLE AS WHITE PEOPLE????? NO, YOU DON’T! WE ARE ALL ONE RACE. SICK OF IT.”

There were some negative perceptions of the BAME community expressed in the comments that cited BAME crime or a lack of gratitude for entitlement:

“How on earth can Lammy mouth on about BAME victims of Covid-19 when BAME people have been kicking the shite out of white people all over London...”

“We are all sick of the fabulously ungrateful and entitled BAME”



Sub-Theme: BAME health inequalities

Significant attention has been drawn towards the health inequalities between different ethnic groups. The Covid-19 pandemic provided another instance in which ethnic health inequalities were to be discussed, with the topic receiving significant media attention. Comments tended to focus on providing explanations for why the BAME community experienced inequity in health outcomes.

Commenters cited that the disproportionate health outcomes present in the BAME community was a product of their own behaviour, such as an aversion to vaccination or adherence to lockdown measures:

“It’s not the fact that the police had to fine 4 times more bame for breaking lock down rules. Funny how the greater death rate is the exact same percentage. What a coincidence... it can’t be that thought, it must be racist because it’s never your own fault.”

Other explanations for why BAME health inequity existed pointed towards differences in socio-economic status and employment:

“...It’s probably because minority groups represent a huge part of medical/nursing/carer workers. You can see this on any ward, especially within care-homes...”

“...the differences were more likely to be caused by demographic and socio-economic factors, such as where people live and the kind of jobs they do....and as Newcastle is mostly white and urban and suffers similar rates as the Bame areas that clearly demonstrates its geography and jobs not ethnicity that are the defining factors in who gets covid19.... population density and public facing jobs.”

There was also mention of biological factors as being a reason for why BAME health inequity existed:

“unbelievable.... yeah, covid is racist - Nothing to do with vitamin D levels in people with darker skin. Nope. it’s WAAAAAACCISM...”

Study 3: Key findings

Sub-Theme: BAME health priorities

The potential for Black, Asian and minority ethnicities to receive health priority in response to the growing public awareness to existing health inequalities was also discussed in the data. Generally, the attitude towards this potential health strategy was widely condemned and labelled as racists:

“...but to prioritise people based on Race/Ethnicity is Racist, like do people really want to go down this path?”

“...But this should never be a question of colour, race, ethnic background! I am so sick of normalisation of this reverse discrimination. Discrimination is discrimination - no matter what the form.”

In contrast, some commenters argued that prioritisation should be based on risk and not ethnicity per se (though if those from the BAME community are at more risk on the basis of health and not ethnicity alone, then priority would be acceptable):

“People with underlying health issues should be prioritised, black and Asian people are more likely genetically to have underlying health conditions, so in that way yes, more as a percentage will be prioritised but no one should be at the front of the queue on ethnicity alone.”

“i dont even know why this is even a question ? i thought the government told us not so long ago that this virus affects ethnic people more well if thats the case then yes you should be prioritising them along with those that are at the highest risk”

Sub-Theme: Perceptions of BAME community

While there were comments within the data set which expressed attitudes and perceptions of BAME, several comments focused specifically on the behaviour of the Muslim community. A portion of comments focused on the behaviour of Muslims during the pandemic, while most expressed heavy criticism of Muslims as a community.

Sub-Theme: Covid-19

In relation to Covid-19, discussion focused on how Muslims adhered to lockdown measures. Several comments accused Muslims of flouting lockdown measures, or purposefully spreading the virus:

“They will all go mosque, catch covid and die. plus give it to their families”

“...Some of the peaceful deliberately spits on the road or spit on the food delivered to you .For them, this is CoRona Jihad...”

Some comments also included speculation on the motives or reasons for why Muslims would not cooperate with the Covid-19 response strategy, such as adhering to lockdown or taking the vaccine:

“...yet when they become ill with covid they are then a poor minority victim and the virus is racist...”

“What if Coronavirus Vaccine content is Porchine (PIG)...”

There were some supporting comments however, with users noting that Muslims are adhering to lockdown measures as per religious guidelines, and in some cases better than those of other religious communities:

“Islam strictly prohibits leaving the country that has the plague or going to a country that has a plague and going outside of your house during a plague and meeting people during a plague and going to a mosque during a plague...”

“...Now we are in Ramadan (half way through actually) and ALL mosques in US are shut down and following the social distancing guidelines...unlike several churches in midwest where the virus is still being preached as a liberal hoax.”

This was also evident in discussions on the use of mosques during the pandemic, with a majority of comments making mention that mosques were closed as per state guidelines:

“Stupid ignorant fools don't even know that mosques are close even in Muslim countries. Most Islamic countries closed mosque and asking for to pray at home...”

Study 3: Key findings

Sub-Theme: Taking over

Beyond highlighting Muslim behaviour in relation to the pandemic, the data revealed several other areas of commenter focus on other issues. For instance, the perception that the Muslim community is taking over or invading. This view was expressed from three main countries: India, the UK, and the US:

“...You will have sleepless nights by learning the brutal truth of Muslims invasions in India...”

“England will soon become islamic Nation.”

“islam will rule england and rest India”

Sub-Theme: Not welcome

Following the general perspective that the Muslim community is taking over or invading, the rhetoric of Muslims not being welcome or desirable was strongly expressed in numerous comments. A variety of aversive views were expressed, such as the arrival of Muslims as being the gateway to social problems:

“i don't understand why western countries allowing muslims in their country.. you guys are creating trouble for yourself”

“...to open the door of terror prone people in Poland.... Very good replies by Polish person... Keep this jihads out”

It was also thought that if Muslims arrive to any country, it would lead to the imposition of Sharia law:

“If he removes ban..Radical Islam will be here..where they practice sharia law..”

“1. Muslim ask for home2. Muslim ask for mosque3. Muslim ask for madrasah (islamic school).4. Muslim ask for muslim leader (governor/ PM)5. Muslim ask for sharia law (islamic law)6. Finnally, muslim ask for your country...”

Some commenters asserted that Muslims do not integrate into society, which is why they are not welcomed:

“...This isnt a war, this isnt Muslims and or Islam taking over. This is simply a main problem with integration.”

Specific references were made to the involvement of Muslims in attacking healthcare workers (in India):

“Dirty violent community who beats doctors and spit on them, I dont know why doctors still treat them, hate these people.”

“Even animals wont bite there saviours...how can some human beings spit on medical staff..out of my mind.”

Commenters also suggested ways in which the problem with Muslims “taking over” could be addressed and mitigated. Mainly, this was with the criminalisation of believing in Islam, deportation, or denying Muslims :

“The cure would be for the British Government to criminalise being a Muslim and supporting Islam and we all know their too gutless and spineless to do the right thing for the British people!”

Suggestions were also corroborated with reference to how other countries have responded to the “Muslim takeover”, particularly from China:

Study 3: Key findings

Sub-Theme: Negative perceptions of Muslims

Insight into some reasons for why users expressed aversion to Muslims entering their countries might be found in more general attitudes and perceptions held towards the Muslim community. Negative perceptions of Muslims were expressed frequently, ranging from personal attacks to speculation on how Muslim presence will negative effect society.

For example, users commented on Muslim's lack of intelligence:

"...But hey, can't blame them they've been brainwashed by their fake prophet and their stupid book."

Other assertions focused on the viewpoint of Muslims towards a range of different social issues usually under the tone of being regressive, or that of their beliefs:

"Other people are going forward--- only muslims go backwards"

"Politically correct liberal idiots have caused this disaster with intolerant muslims."

The perception of how Muslims rely upon state support was also clear, with most comments tending to paint the Muslim community as taking advantage:

"...Tell lies get single mum benefits . Fake divorces. Big big mosques . They will never say enough..."

"Most of the council houses are occupied by muslims"

Closely related to this, comments also referenced Muslim crime:

"How nice of the lib dems to show solidarity in grooming, oops, I mean fasting with muslims."

The perceived between Muslims and terrorism also emerged, with comments making reference to real life examples of terrorist events, or the potential for Muslims to commits acts of terror:

"...what about sri Lanka church bomb blast same year it happened on DEC 25 that is carried out well trained jihad group stupid baised journalists never mentioned about it"



Study 3: Key findings

Theme 3: Attitudes towards Islam

Although closely related, the data indicated that several comments focused on the critiquing or expressing attitudes towards the doctrine of Islam exclusively, as opposed to the followers of Islam. Whereas the previous theme (Theme 5) comprised of comments which focused on the behaviour of who adopt Islam as their practicing religion, the present theme (Theme 6) comprised of comments which focused on the underling religion and philosophy itself. Furthermore, the present theme was also similar to the previous theme in that a vast majority of comments were negative or hyper critical of Islam, but there were some comments which defended or drew attention to the positive impact of Islam in the world. Main focuses included Islam's place in the modern world, negative perceptions of the religion and the principles or guidance it espouses, the cause of Islamophobia, and the positive impact of Islam.

Sub-Theme: Islamophobia

Overall sentiment was that of dismissal, such that Islamophobia does not exist, is not a significant issue, or is not a concept in its own right and instead is a method of protecting from criticism:

“Islamophobia is merely a construct of radical Muslims to validate their own paranoia.”

In line with the dismissal of Islamophobia, other users argued it is only a mechanism to repress to repress free speech and prevent the criticism of Islam

“...Islamophobia is invented to silence others from saying the truth about Islam !”

Or to portray Islam as the victim:

“Islamophobia is a neologism coined by a Muslim Brotherhood front group involved in the Holy Land terror funding scandal exposed in FBI raids. Its a logical fallacy victim tactic. Fraudulently seeking sympathy...”

Users also expressed their view that Islamophobia is a self-creating problem, such that it is a product of the behaviour of Islam's adherents:

“Pat you got it all wrong! There is a cure of Islamophobia! It requires all Muslims to stop being racist, sexist, violent and start accepting the society they now live in instead whining like four year olds because someone crossed their paths wrong...”

Sub-Theme: Negative perceptions of Islam

Insight into why the majority of user comments rejected the existence of Islamophobia, or lacked sympathy for Muslims who might encounter Islamophobia, can be found when assessing the overall anti-Islam sentiment. A variety of negative perceptions were expressed in comments which were characterised by hate speech, criticisms of the Quran, perceptions of what the religion teaches, Islam teaches immorality, and attacks on the prophet Muhammad.



Study 4: Key findings

Sub-Theme: Islam's place in the world

As was the case for the previous theme on Attitudes towards Muslims, there was also discussion on the place of Islam in the world. Consistent also with the previous theme, was a majority version or rejection of Islam as having a place in the world. For example, Islam being incompatible with western values:

“...Is it no coincidence that British society has no history of direct islamic influence due to Islams clear incompatibility with British values. And is the multicultural quest destined to create a two tier society?The white middle class british led islam (as in the norwich example) being the exception to the rule rather than a viable norm.”

The way in which those who follow Islam interact with their country was also commented on. For instance, closely related to the perspective that Islam is not compatible with western culture, some users commented that those who follow Islam are not open to embracing the culture of the country in which they live.

As much as I agree with the premise of that video, I'm still waiting to hear one single Muslim recognise that it is not easy to see your country changing before your eyes and not be angered. It is not easy to feel that people are coming and they want you to respect their culture and not the other way around. The cultural clash is just too much sometimes.

The perceived status of Islam in non-islamic countries was also discussed, with commenters often implying that non-Islamic countries protect Islam more than they protect the native religion of those countries:

“Seems like Muslims have invaded Great Britain and subjugated Your people. With this proposal in power, You will literally be a second class citizen if You are not a Muslim. Also the symbol of Crescent Moon stands higher than The Cross in your country as you cannot criticize the



Study 4: Key findings

This study involves a case study driven approach, using previously collected data and analysis from Twitter and YouTube, in attempts to elucidate the link between online misinformation and offline actions and consequences. This element of the research will provide important evidence of how online driven language and Covid-19 misinformation has potentially impacted real world events. Although it is difficult to provide a direct cause and effect for these scenarios, these case studies will be presenting evidence to suggest how there is a plausible link between online and offline behaviour. Previous research has successfully demonstrated links between online and offline extremist behaviour (Awan, Sutch & Carter, 2019).

Covid-19 has shown how seemingly isolated events can trigger and drive misinformation and extremism, whereby far-right groups are leveraging the pandemic to promote their agenda (Ariza, 2020). It is important to address the link between the content that appears online and offline to demonstrate the severity and impact of misinformation, fake news, xenophobia, and extremism and how this content online may transgress offline. Providing a detailed depiction of how this can occur will hopefully encourage tech companies to do more to prevent such behaviour online now and, in the future, as well as providing guidance to security services who will face the offline ramifications (Ariza, 2020).



Study 4: Key findings

Case studies from Twitter and YouTube

Case Study 1 - Muslim treatment in India during Covid-19

This case study involves a key discussion around a prominent discourse that was found throughout the Twitter and YouTube data collected and analysed in the previous studies. Both the language and key behaviours and themes found have documented the landscape of Covid-19 in India and how this has been reflected online.

In terms of the language used online during the pandemic, there were specific terms/hashtags used on Twitter to disseminate content around Covid-19 and India. This included phrases such as delhiahainstjehadvioence, bantablighijamal, crushtablighispitters, nizamuiddidiots and banjahlhamat. These phrases are important when recognising how the online space such as Twitter was utilised during the pandemic to promote misinformation, fake news and conspiracy theories. This is evident as these phrases correlate with many of the news stories circulated during the early stages of pandemic.

What was described as a 22-day fake news frenzy in India, included claims that Muslims spread Covid-19 by spitting on fruit, food and utensils as well as profiling the Tablighi Jamaat as super spreaders of the virus (Bakry, Syatar, Haq, Mundzir, Arif & Amiruddin, 2020; Nagar & Gill, 2020; Udupa, 2020). Many of these news stories have now been proven too have embedded fake news and embroiled a network of fear, miscommunication and Islamophobia (Ahuja & Banerjee, 2020; Banaji & Bhat, 2020; Jadhav, 2020). Nevertheless, Covid-19 has facilitated the creation of a new dimension of hate speech and disinformation which has been targeted towards Muslim communities within India (Banaji & Bhat, 2020).

In the context of YouTube comments made in response to news videos that covered the treatment of Muslims during the pandemic in India, similar perceptions of Muslims not supporting the health strategy of the government had emerged.

A substantial focus for commenters was to express that Muslims were purposefully spreading the virus and not adhering to lockdown rules, were not welcome in India, with their presence having inflicted substantial burden on the country, and that they have further impeded on the governments health strategy by committing crimes and attacks on health workers.

In addition to key linguistic features found on Twitter there were important messages and themes that were evident throughout the data. These were explored in depth during the thematic analysis. An important and relevant theme that is intrinsic to this case study was that India are corona warriors against Islam. This theme embodies messages that Muslims are causing Covid-19 chaos in India, where they are deliberately transmitting the virus and India is facing a fight against Muslims and the virus that they are spreading.

Prior to Covid-19, throughout history, India has endured a complex relationship between Hindus and Muslims. The pandemic has acted as a trigger which has unfortunately further instigated Islamophobia within India (Ahuja & Banerjee, 2020), this has been evident both online and offline. Supporting this, the YouTube data also indicated an in-group/out-group commenter perspective, where Hindus were positioned as combatants against Muslims and the patriotic and protecting group, while Muslims were the alien and invading group.

As this research has demonstrated, other researchers have also revealed the power of social media and how it has been used to fuel the fire of Islamophobia within India, through the sharing of hashtags such as #coronajihad - which has provoked further political tensions and criminality aimed at Muslims (Ahuja & Banerjee, 2020). Numerous cases of Islamophobia have been reported in India during the pandemic.

Study 4: Key findings

Evidence of how this behaviour has transgressed offline is evident from Attacks on Muslims and calls to boycott Muslim run businesses, seeing Muslims being prevented from entering residential areas to conduct usual business (Menon, 2020). Muslim fruit vendors were threatened and told to shut their shops as they were blamed for the spread of the virus (Menon, 2020). Assessments have shown that misinformation on social media regarding meat eating within has contributed to losses of 130 billion rupees in the poultry industry (the equivalent of 1.3 billion pounds) (Menon, 2020). Swaraj Abhiyan workers were reportedly attacked with cricket bats while distributing food to stranded migrant workers during the pandemic, attackers blamed them for the spread of the virus, accusing them of spitting in the food (Menon, 2020).

Similar perspectives to those which fuelled the attack on Swaraj Abhiyan workers were also found in the YouTube data, with comments making references to instances where Muslims were spitting on food and attacking health workers, thereby undermining the efforts of the wider Indian community. Offline incidents such as these correlate with similar language and messages that this research has found online.

There has also been a continued influx of general hate towards Muslims even 18 months after the start of the pandemic. It is suggested that Anti-Muslim hate have significantly increased under the Hindu national government, where Anti-Muslim hate grows in sync with the strategies of those in power (Pandey, 2021). This was evident during Covid where Hindu leaders and ministers targeted Muslim men who attended a gathering branding them corona jihad and blaming them for the spread of the virus (Pandey, 2021).

The mainstreaming of such a high level of Islamophobia in India, from areas of the government, media and social media, means that it is highly likely that we are still seeing the lasting effects of such a widespread consensus. In situations where extreme views, Islamophobia and misinformation is given a large enough platform it inevitably plays a role in legitimising the arguments which are able to gain traction and attract more supporters.

These messages, along with specific language used on Twitter and YouTube further perpetuates the levels of miscommunication, fake news and Islamophobia that has been present across media platforms both social media and broadsheets. This raises plausible questions on how such content effects the offline world. Although it is difficult to provide a direct cause and effect for such behaviour, it is possible to outline the coincidental link that such language and behaviour that is being seen online could instigate and encourage similar offline behavioural trends.



Study 4: Key findings

Case studies from Twitter and YouTube

Case study 2 - Covid-19 and the involvement of the Quran and mosques

This case study involves a key discussion around a prominent discourse that was found throughout the data both collected and analysed in the previous studies, regarding Covid-19 and the involvement of the Quran and Mosques. Both the language and key behaviours and themes found have documented the conspiracies theories and disinformation surrounding Islam and Covid-19, in particular the involvement of mosques and the Quran.

The linguistic analysis highlighted important language that is relevant to this case study, including *islamspreadcovid*, *islamiccoronajehad*, *jihadagent*, *islamistheproblem*, *islamicvirus*, *coronajehad*, *coronajihad*, *islamexposed*. This illustrates a clear attempt of how Twitter users have attempted to associate the origin and transmission of the virus with Islam. Elements from the thematic analysis also demonstrate this, themes such as Covid-19 originated from the Quran, highlights content stating that Allah is telling Muslims to spread the virus, how mosques are a breeding ground for the disease, and how mosques are instructing Muslims to not adhere to social distancing. Messages that promote Anti-Muslim hate and the closure of mosques, stating they are a breeding ground for hate has previously been demonstrated to form a significant part of far-right ideology (Jackson & Feldman, 2011). Prior to Covid-19 the world has witnessed the role that the online space plays in contributing to behaviour offline. One significant case that demonstrates this is the Christchurch terrorist attack in 2019, where 50 people were killed whilst worshipping at their mosque (Lowe, 2019). An inquiry highlighted how the attacker visited far-right websites and posted right wing material on his Facebook page (BBC, 2020).

In addition to this, the trial for the Finsbury Park Mosque attack, where in 2017 Darren Osbourne drove his van into worshippers as they left a mosque, highlighted how the extreme far-right content posted online had influenced him to carry out the attack (Lowe, 2019). Attacks such as these highlights how the internet can provide a platform for the incubation and promulgation of extremist ideologies (Crothers & O'Brien, 2020). With this in mind it is important to recognise how extremist content, misinformation, xenophobia, fake news and conspiracies theories online can influence behaviours which can transgress offline.

There has been noteworthy evidence to demonstrate how this has been the case during Covid, where offline behaviours resemble online misinformation and Islamophobia. During lockdown, a man shared on social media how he sat in his vehicle outside a mosque in America to conduct a Ramadan bombathon, in order to monitor the mosque for Covid-19 compliance and attempt to intimidate the community (Al-Qazzaz, 2020). The number of attacks on mosques has increased considerably during the pandemic, Toronto recorded six incidents on mosques at the beginning of the pandemic (Al-Qazzaz, 2020). Far right groups have increased their opposition to mosques during the pandemic, this was particularly the case regarding the new mosque development in central London, claiming it to be a biological threat posed by worshippers (Allen, 2020). Far-right activists shared a poster on social media to call on those infected with Covid-19 to visit local mosques to spread the virus, this highlights the sinister role social media has played in influencing behaviour offline during the pandemic (Allen, 2020).

Study 4: Key findings

Case studies from Twitter and YouTube

Case study 2 - Covid-19 and the involvement of the Quran and mosques

This case study is particularly important as it provides a more distinct correlation for the appearance of online misinformation, fake news and Islamophobia found on social media and within news articles and how this can transgress offline. There are three key elements to this case study, Muslims not being worthy of Covid treatment, Muslims hesitant to receive Covid treatment and Muslims lack of access to covid treatment. This section of the case studies refers to data collected showing numerous comments stating that Muslims are not worthy and deserving of Covid treatment. Muslims were also accused of purposefully using racism as a scapegoat to flout lockdown restrictions, and that they deserve to get sick if they do not adhere to government policy. Many comments alluded to how Muslims have been favoured during the pandemic and that they have been above the law in terms of Covid-19 restrictions as well seeing Muslims being labelled as Covid-19 super spreaders. Muslims were also perceived as being prioritised over other ethnic communities, such that Muslims deaths received more publicity than non-Muslim deaths. As a result, many comments stated that Muslims should not be offered the vaccine, as they were not able to follow the rules and impeded the progress in the effort to fight Covid. In addition to this, many comments also stated that the vaccines should not comply with Islam and Halal. This was represented in not only the themes but also evident in the corpus linguistics when seeing the prevalence of hashtags such as #saynotohalal. There is a clear defiance online to resist Islam and restrict Halal (Hussein, 2015). Further calls for Muslims to be denied the vaccine emerged when commenters would point towards potential conflicts in the ingredients of the vaccine, and the principles followed by Muslims. For example, Muslims should not take the vaccine as it will contain pork.

The type of content found in the current research can be linked to offline behaviour. Misinformation and fake news that has circulated online has seen fear within the Muslim community when getting tested for coronavirus

(abplive.com, 2020). This may be linked to fears that they will be ridiculed and blamed for spreading the virus if they test positive.

Muslims have experienced hesitancy when accessing medical care for Covid-19 and vaccines due to feeling that the healthcare system does not strive to encourage their wellbeing (khan, 2021). Misinformation and disinformation regarding the Covid-19 vaccine has also had an impact on vaccine uptake within Muslims communities (khan, 2021). Misinformation campaigns have targeted Muslims, suggesting that the vaccine contains components that are not Halal, which has left Muslims reluctant to come forward (Good, 2021).

Previous epidemics have strengthened societal stigma and the marginalisation of minority populations, literature shows that misinformation on social media can intensify these reactions (Ahuja & Banerjee, 2020). There are several impacts of such behaviour, one important to mention, that is relevant to this case study, is the competition for access to health care; where minorities can face medical discrimination based on class, religion or ethnicities (Ahuja & Banerjee, 2020). The effects of disinformation stating that Muslims were intentionally spreading the virus in India became evident very quickly. Research found that in March 2020, residential settlements and hospitals denied entry and service to some Muslims, resulting in further unnecessary deaths (Banaji & Bhat, 2020).

This is a significant case study that needs attention when thinking of the offline impact, messages such as these online will further the marginalisation of Muslims in society. With numerous cases being reported of attacks on Muslims on a daily basis. The emergence of Covid-19 and how it has been utilised to promote misinformation and Islamophobia, clearly presents a new dimension of Islamophobia that can occur both online and offline. More efforts are needed to combat Islamophobia in society as it is apparent that the way in which Islamophobia can take hold is mutating to include more sinister actions including the denial of healthcare and fearmongering of those trying to access healthcare.

Recommendations

1. A button that helps users report misinformation on social media

We propose that social media companies such as Twitter and YouTube have a button that can help users report misinformation in order to detect online harms and potential impacts offline. We argue that this could help prevent the spread of conspiracy theories and assist in detecting false or misleading information. Some social media companies such as Twitter already allow users to label tweets as misleading but the report button could act as a powerful tool for users to report misinformation.

2. Soft verification of identity to tackle online anonymity

Although our findings suggest that an increase in Islamophobic conspiracy theories and misinformation was associated with Twitter users who were characterised by a higher number of identifiable items in their user name/profile, research has shown how it is paramount to explore how anonymity plays a role in levels of hate speech, conspiracy theories and extremism online. The findings of the present research demonstrates how anonymity can play a differential role in the levels of extremism and Islamophobia online. This research suggests that the role which anonymity plays in the occurrence of these types of behaviour online can depend on the trigger event and what drivers are involved. For instance, with Covid-19 much of the misinformation and subsequent hate speech and extremism which followed was widespread, with much of the content being presented by mainstream sources. In instances such as these, anonymity plays a lesser effect. Never the less, anonymity has been shown to act as a facilitator in levels of conspiracy theories, hate speech, misinformation and extremism online. One suggestion for social media and online platforms is to encourage or insist in some on a minimum amount of identifiable information to reduce conspiracy theories and hateful rhetoric.

3. Using a tier system to warn and remove users

Whilst there are some issues in relation to hateful speech that need to be addressed corpus linguistics and sentiment analysis could be used to create a crude tier system or early warning system for platforms or users, identifying videos with more toxic or conspiracy theories. If the comments for a video or platform pass a certain threshold users could be warned about the potential content, or reminders to fact check could be presented by the platform. This type of tier system could help remove racialising conspiracy theories from social media and the wider consequences should include the ability to de-platform offline and online stigmatising communications.

4. Educational digital training programme

As Covid-19 has increased the spikes in misinformation there is a need to incorporate an international digital training programme around social media literacy for users to be upskilled and help build resilience so that users are better informed on the actual drivers of misinformation. This digital training package would cover key stories around misinformation and act as a tool that helps users distinguish between fact and fiction. As this would be an international training programme it could also help raise awareness about international trigger events that lead to conspiracy theories and provide users with the knowledge to critically assess, analyse and evaluate what and how social media posts are used to create misinformation.

Recommendations

5. Tracking conspiracy theories through evidenced-based research

The ability to be able to track false news stories and misleading information can help reduce the likelihood of misinformation. By adopting a research approach through an audit trail that can evidence false and misleading information such as images, videos, captions and posts in a large database it could help to identify fake news stories and compare them with factual news stories. This research approach should be evidenced-led and would apply some form of algorithms that would enable social media companies to quickly identify and detect conspiracy theories before they gain traction.

6. To prohibit the use of dehumanising language through clear repercussions

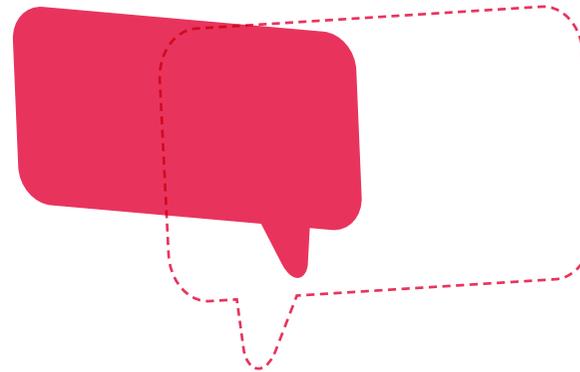
A new online digital charter should be adopted with clear aims that can start with the prohibition of dehumanising language. This could include rhetoric and language that is used to dehumanise a group of people because of their faith, religious identity, and visibility. This online charter should be underpinned by the welfare of its consumers. We believe that if some form of sanctions are applied against social media companies because they failed in their duty of care to consumers that this could create a social media fund that can be put back into the online community and be used to tackle language that incites and inflames racial tension.

7. Detection and Filtering misinformation content

Having a tool to detect and filter harmful sites and webpages that promote conspiracy theories is much needed. This could be used to detect and fact check how misinformation is spread online. This platform could be used to list trustworthy and credible accounts against those deemed untrustworthy. This could help to classify where misinformation comes from and also track people's digital footprint.

8. Bulk reporting of inappropriate content or misinformation

Whilst the options to report content currently exist within Twitter there is a cap on how many tweets can be reported at a time. At the time of writing approximately 5 tweets from an account can be reported in one go. Any further reporting of content from that same user must be done separately in another report, and usually after the first report has been addressed. This process can take a few days. Often though the account reported has many more tweets that could be reported, indicating an entrenched pattern of behaviour and communication that is at odds with Twitter's policy and respectful discourse. We would recommend that a bulk uploading of tweets (more than five), or of a time period (covering the offending tweets) would be more comprehensive.



Conclusion

The preceding discussion has examined the online and offline impacts of Islamophobia on two main social media platforms; namely Twitter and YouTube. Specifically, the aim of this report was to examine: (a) To discover the impact of misinformation and the 'infodemic' pandemic on social media sites (for this project the social media sites included the platforms of Twitter and YouTube); (b) To understand the drivers of conspiracy theories and the relationship between online and offline extremism in relation to Islamophobia; and (c) To provide recommendations to ways to reduce Islamophobic hate speech on social media.

The project entailed four studies in relation to data collection. The four stages of this project considered the role of language, expression of emotion and sentiment, performed actions (pro-social and anti-social actions), Covid-19 miscommunication and misinformation related narratives, and potential links not only between these online elements of miscommunication but also potential offline impacts. These approaches highlighted the frequency of miscommunication that is spread throughout social media sites (Twitter, and YouTube) and how this can instigate miscommunication online. Importantly, it also considered the role of key factors like anonymity, membership and peer groups might have on social media content. Our findings suggest much more work needs to be done when considering the role and impact of conspiracy theories in relation to Islamophobia.



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Appendix A

Sample Word List for Corpus Linguistics Data collection

1. Againstislam
2. Antiislam
3. Banislam
4. Banmosques
5. Banmuslims
6. Bansharia
7. Deportthemall
8. Islamiscancer
9. Islamisevil
10. Virusjihad
11. Coronajihad
12. Covid 19
13. Islam
14. Muslim
15. Muslimcovid
16. Mosques/eid
17. Virusspreaders
18. Stopislam
19. Islamistheproblem

