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Moral Panics and Fear of Crime around Terrorism in the

Online World of Twitter

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Abstract

In the past decade social media platforms have risen to exceptional levels of prominence in societies across the globe. Platforms such as Twitter allow millions of users from across the globe to contribute to various discussions, from menial everyday occurrences to events of extreme violence that appear in the media. Twitter has also allowed for public figures (politicians, celebrities, academics, and so forth) to converse more directly with the general public. A non-directional hypothesis was used to guide the question of determining how moral panics impact discussion around terrorism on Twitter. This study analyzed discourse from Twitter which took place in the two weeks following the terror attack which occurred in Nice France in July of 2016. Two data-sets were collecting using a new platform called Active Tweet Retrieval-Visualization (ATR-Vis) which relies on data-mining and machine learning algorithm to collect and sort relevant data from Twitter. By looking at data from Twitter and performing a frequency based content analysis of five categories words and phrases relevant to moral panics and terrorism it was found that fear of crime and moral panic pervades into social media discussions. The study concludes that more work is needed in determining how online discourse can impact anti-terror legislative decisions.

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Forward – The Attack on Nice France

On July fourteenth 2016 the city of Nice France was struck by an act of extreme violence that has since been labelled an act of terrorism. A cargo truck weighing roughly nineteen tonnes was driven into a crowd of people celebrating the French holiday of Bastille Day. In total 86 people were killed in the attack, with all but three of the initial death count happening immediately and the remainder occurring from fatal injuries that could not be successfully treated (BBC News, 2016).

The offender held responsible for the act was then thirty-one year old Mohamed Lahouaiej-Bouhlel, a Tunisian delivery man. Though not known to have been a Jihadist militant, Lahouaiej-Bouhlel was marked immediately as "quickly radicalized" by Bernard Cazeneuve, the French Interior Minister at the time of the attack. Lahouaiej-Bouhlel had been said to have been plotting to steal the lorry cargo truck to commit the act of extreme violence for as much as fortyeight hours prior to the actual attack. Upon seizing the vehicle, Lahouaiej-Bouhlel proceeded to drive it directly into a crowd of festival goers on the beachfront Promenade des Anglais in Nice. While many public officials chose to without hesitation deem the act to be associated with Islamic extremism, the actual information on Lahouaiej-Bouhlel would suggest to the contrary. As a native of Msaken, Tunisia, a small country in Northern Africa, Lahouaiej-Bouhlel was said to have had a history of violence and mental instability, while also having separated himself greatly from religion entirely. Though some reports attest that Lahouaiei-Bouhlel had claimed that this attack was in the name of religion and that he had taken a sudden fascination with extremist ideologies, no concrete evidence could be found to link him with any such group and thus he remained defined largely as a "quiet loner" (BBC News, 2016).

Immediately following the attack then President, Francois Hollande, among other French governmental officials, labelled the attack as Islamic terrorism. Countless head of states from around the globe soon proclaimed their solidarity and collective willingness to support France and to stand with them against acts of violent extremism and terrorism in general. As a result of the ensuing panic, accompanied with public outrage, the French government moved forward to boost security and place extra police patrol in the its cities. President Hollande and Interior Minister Cazeneuve acted quickly to demonstrably increase security through adding approximately twelve-thousand reserve forces to the already present one-hundred-twenty-thousand police officers that were present across the country at the time of the attack. This move to increase police was justified as necessary to prevent what Cazeneuve denoted to be an eminent terrorist threat.

Introduction

Terrorism and the threat of terrorism have been at the forefront of moral panics for many years. This has become especially pronounced with regard to what has been termed as *Islamic terrorism* since the attack on New York City which occurred on September 11, 2001. Since then, the panic surrounding terrorism and Islamic extremism has grown substantially. As a result of public panic, a number of counter-terror measures, primarily through the enactment of numerous anti-terrorism legislations have continued to be implemented under the guise of protecting society from this supposed ever-impending horror.

A moral panic itself can encompass a vast array of social phenomenon largely revolving around an issue in morality being seen by certain members in society regarding a particular act. The act need not be illegal and the panic is often perpetuated by right wing politicians, media outlets, and evangelicals (Cohen, 1972). Furthermore there must be a scapegoat, known as the folk devil, which the blame is placed entirely on. Finally, there does not need to be an actual threat, only a perception of danger must be present for the moral panic to ensue. While terrorism is an act of extreme violence, it is evident that moral panics play an instrumental role in disproportionately representing the prominence of terrorism and thereby elevating public fear thereof. Little concern is then given by society to such human rights suppression (including of their own rights) if they are insured that doing so will protect their values and keep them safe (Cohen, 1972; Welch, 2011).

Since then, the panic surrounding terrorism and Islamic extremists has grown substantially. A number of counter-terror measures have continued to be implemented under the guise of protecting society from this supposed ever-impending horror in response to the public outcry and panic regarding terrorism. This thesis has the primary objective of coming to an

understanding of how the moral panic around terrorism has influenced discourse on Twitter with respect to the attack on Nice France. Furthermore gaining a comprehension on how this online discussion then feeds back into cementing the moral panic and fear of crime around terrorism further was also at the forefront of this study.

Literature Review

The literature provided covers an overview of terrorism, what counter-terrorism is and how it relates to the moral panic around terrorism. The literature will also look at human rights violations and fear of crime. The central question of this research is in determining if and how moral panics around terrorism are present on Twitter, and what influence this has on the direction of the discourse which occurs. In doing this, part of the knowledge gap that exists currently around the role in which social media plays in the continuation of moral panics can be effectively filled.

Moral Panic

In Stan Cohen's 1972 work *Folk Devils and Moral Panics: The Creation of the Mods and the Rockers*, two youth gangs (the Mods and the Rockers) in England are explored, in particular Cohen examines the public fear and outcry revolving around their existence. It is from this that Cohen initially hypothesized the idea of both the moral panic and the folk devil. Cohen (1972), outlined a moral panic as consisting of the following five stages:

1) A person, group or thing is defined or otherwise labelled as a threat to society. An organization (political, religious, or otherwise) seeks to blame a perceived problem in society on a certain person, group of people, or thing. In the case of terrorism, individuals with Middle-Eastern descent and of the Muslim faith have been labelled by certain conservative and evangelical figures as a threat to societal well-being due to the existence

- of terrorist groups such as Al-Qaeda and the Islamic State of Iraq and the Levant (ISIL, also often referred to as ISIS).
- 2) The media then comes into play in depicted on otherwise portrayed in an easily recognizable form (such as with a symbol). Triggering headlines with fear evoking language are often used in the case of terrorism. ISIL remains currently one of the major symbols used by the media to create panic around terrorism.
- 3) This media depiction then creates public concern and discontent. Fear or rage are instilled in society and associated with the symbols and the person, group, or thing associated with the moral panic. This public concern is largely focused around safety when concerning terrorism that is whether or not it is safe to go to the mall, fly on a plane, or numerous other activities that are often associated with the threat of potential terror attacks.
- 4) Policy makers (namely government officials) and authority figures respond to this overwhelming public outcry. Legislation is enacted in an effort to thwart who or what is supposedly responsible for the act constituting the panic. Police and other authority figures become more invested in preventing what is causing the public panic through increased presence and greater enforcement of laws which are designed to remove what is causing the moral panic. With respect to terrorism, anti-terror legislation and increased police and securitization efforts are key examples of this stage of the moral panic.
- 5) Finally the moral panic results in changes within the affected society or societies. Laws which shape the future of a society are put into effect in response to the panic and such laws often carry numerous implications that can carry far more risks than benefits.

Terrorism has led to numerous infringements of liberties (such as with air travel and immigration) in an attempt to prevent future acts of extremist violence.

Cohen (1972) also makes the point that it is important to note that for something to be a moral panic it matters not if it is legal or illegal, so long as it deviates from some sort of moral value held within a given society. The folk devil as well plays an important part in the fabrication of most moral panics. Cohen (1972) uses this terminology to signify the scapegoat of a moral panic, thus it is the folk devil that faces the blame of the concern around any given moral panic.

Actors in the Theatre of Crime

Bernard Schissel (2006) outlines eight factors that play a major role in the creation of a moral panic. He had termed these the *actors in the theatre of crime*. These actors give further context to the theoretical framework outlined above from Cohen (1972). Schissel (2006) details each of these actors in the third chapter of *Still Blaming Children: Youth Conduct and the Politics of Child Hating*. While this work focuses primarily on youth violence and youth crime and how moral panics tie into this phenomenon, it is clear that the major implications associated with these actors can be aptly applied to a wide range of crime – including terrorism.

The first of Schissel's (2006) actors, and in the case of terrorism one of the most influential, is the press. Media outlets and agencies play a vital role in how a vast majority of society learns about and comes to perceive or understand crime and criminality. This can pose highly detrimental consequences – especially when the media 'expert' comes into play. Media portrayals of criminal activity, particularly when focus is placed on extreme forms of crime, are instrumental in shaping societal perceptions of how dangerous the world has supposedly become and how unsafe they themselves currently are (Schissel, 2006). While it is not uncommon for actual experts in academic field to be featured in news articles or on live broadcasts, media also

allows for individuals with perceived expertise to have a platform to delineate false information under the guise of having the proper credentials (Schissel, 2006). Schissel (2006) provides such examples of individuals such as Dr. Phil providing false or exaggerated information regarding psychological analyses and Don Cherry (host of *Hockey Night in Canada*) weighing in on electoral issues despite having no political background. The acceptance of false or exaggerated information is largely a result of the emphasis being placed on the medium from which such information hails and not the actual message (Schissel, 2006). The media can then be said to provide society, in many cases, not with the facts, but with what is believed to be the desired message for society. The media then concerns itself more with what will keep consumers buying into the (mis)information than with actually providing evidence-based, factual content (Schissel, 2006).

Consumers then come into play as the next in the list of actors in the theatre of crime. What the public wants to hear, what the public fears, and what is then portrayed by the media are all intertwined (Schissel, 2006). Television has not only become a dominant form of influential media, but has also influenced the way in which print media has adjusted its mannerisms in an attempt to appeal to a wider audience in an ever technologically based era (Schissel, 2006). As a result of the marketing structure implemented across media platforms, it has long since become a key focus for news to portray whatever will keep the focus of the public – regardless of the reality of the event being covered (Schissel, 2006).

Governments are key actors through their administrative responsibilities which involve responding to public unrest and criminal activity. Governments are, above all others, the institutions which enact the laws which deem an act as criminal. Furthermore many political platforms are at least in part based on crime – namely policies that supposedly would reduce

crime (Schissel, 2006). To further complicate this matter, criminalization is often used as a means to oppress or to put groups in society against one another by inserting dominance – racial, gender, class based or otherwise (Schissel, 2006). Governments and the policies they enact also contribute to reinforcing myths regarding crime – such as prevalence of a given type of crime. In addition to this, there is evidence that suggests that political climate and policies enacted with respect to crime have more control over crime rates than actual changes in criminal activity (Schissel, 2006). This is especially important to consider when discussing the national and international legal roles that governments play in the area of crime that is terrorism.

Police officers and other enforcers of the law come into play as the next actors to consider. While police have some involvement in determining how crime is portrayed to the public, they are largely at the mercy of the other actors in the moral panic (Schissel, 2006). Policing and corrections form an institution that is highly influenced if not controlled by political mandates as well as public demands. As a result placing direct blame on the individual officer is not the purpose of listing them in the category of actors in the theatre of crime, but rather it is because the institution has been mandated in such a way that police and related figures are inherently tied to the processes by which crime is dealt with and how such matters are passed on to the public (Schissel, 2006).

Moralizing groups, made up of moral entrepreneurs, are yet another key actor in the portrayal or crime and the moral panic. These moral entrepreneurs take it upon themselves to play a "proactive role in defining and controlling deviant behaviour" (Schissel, 2006, p. 50). These groups are instrumental in pushing for a society that gives harsher punishments for a wider variety of acts which they deem as deviant or immoral (Schissel, 2006). While it is evident that society cannot allow an act such as terrorism to be acceptable, it is the degree to which such

groups seek to punish numerous behaviours that they deem associated with a given act that poses the greatest problematic concern with their involvement in the moral panic – for example wanting to cut back on immigration because of terrorism (Schissel, 2006).

A further two actors are the victim and the expert – who are often used by other actors such as moralizing groups and the media. Victims can be used to sway public opinions and create outrage. The use of victimization rarely if ever comes into play when concerning judicial decision making, however it is key in creating empathy within the public which can in turn be used to create outrage towards a particular crime or deviant act (Schissel, 2006). The expert – academics, police, and court officials are made use of in order to give some level of credibility to the claims being made by politicians, moralizing groups, and other such actors (Schissel, 2006). As mentioned, the expert need only have the appearance of credibility to the public.

The final actor is the folk devil as termed by Cohen (1972). The folk devil is the central focus of the panic with respect to where the blame is placed (Schissel, 2006). Be it the public, media, governments, or moralizing groups – a folk devil or scapegoat is necessary in creating the moral panic around an act of deviance (criminal or otherwise). Thus it remains important to consider the role played by the person or group implicated as being the reason for the perceived issue in society as they are first and foremost those who face the consequences of bearing such blame (Schissel, 2006).

Defining Terrorism

One of the most difficult aspects in gaining insight into an understanding of terrorism as a form of extreme violence is in explaining exactly what terrorism is. Providing a definition of terrorism can be exceedingly difficult and, at times, can be said to be near impossible to find one universal definition due to the vast number of ways in which terrorism is defined (economically,

politically, and legally). According to Ganor (2002, p. 294), "terrorism is the intentional use of or threat to use violence against civilian targets, in order to attain political aims." While this definition provides a solid basis for what terrorism is, it still leaves a number of key points up for debate. Since 9/11, acts are often labelled as terrorism before ever meeting any of the legal, political, or economic definitions. Legally, terrorism is criminal act of extreme violence, causing grievous bodily harm or death to numerous individuals (Ganor, 2002). Politically terrorism can be seen as an act based in ideological motivations and intent to cause change their invoking fear and discontent in society. Finally, there exists an economic perspective in defining terrorism in that terrorism causes an immense amount of damage to infrastructure and costs societies a great deal in the realm of economic resources (Carver, 2016; Ganor, 2002).

To further complicate this issue, there remains no consensus even in academia as to what the exact criteria are for an act of violence to qualify as terrorism (Carver, 2016). One of the reasons behind the difficulty of a universal definition stems from a number of arguments which are subjective, mainly the idea that what one person may consider to be terrorism could by another be seen as an act committed by freedom fighters (Ganor, 2002). Another issue is whether or not an individual acting alone can ever be considered a terrorist. Often terrorism is seen as an act committed by a group, similar in definition to organized crime, but with political goals in mind over that of economic advancement. However in the case of the New York Sunday Bomber, who detonated five bombs in New York city between October 3 and November 6 of 1960 and was never apprehended, there is a strong possibility that the act of terror was committed by an individual (Delafuente, 2004). If it were the case that this act was committed by a sole person, it would still fit all other criteria for terrorism, in that it was a violent act intended to evoke fear. Thus it remains clear that a single definition may be difficult, if not, impossible to

provide for terrorism, though for the purposes of this paper it shall be examined as an act of violence, used to incited fear or terror with political goals as the prime objective.

Fear of Crime

Fear of crime can be defined as the fear that exists at the individual and societal levels with respect to the perceived likelihood of being victimized by a criminal act oppose to the actual, statistical likelihood of such an event occurring (Collins, 2016). Fear of crime is one of the most intricate phenomenon that can contribute to the creation of a particular type of moral panic. Fear of crime is a process by which society becomes unsettled by a criminal event and in response to the concerns of the populous, policy change may occur to uphold a feeling of safety (Collins, 2016). The fear of crime which revolves around terrorism stems largely from media portrayals, not just of offenders and victims, but of the larger scope of how it impacts day to day life in society (Nellis et al., 2012). Therefore one must consider a number of problematic concerns when dealing with how widespread this media influence can be.

Human rights come into play when looking at the political decision making that is relevant to fear of crime around terrorism. A human right can be defined broadly as a justifiably right in which everyone in a society is entitled too, however the implications of what exactly is called a right and how they are invoked vary greatly across the political spectrum among other realms (Cohen, 1993). A violation of such a right is a major component of moral panic as it relates to the folk devil – particularly as it concerns crimes such as terrorism (Cohen, 1972; Cohen, 1993). Such violations of human rights are made possible through the implementation of policy reforms (Cohen, 1972; Schissel, 2006). The politics of fear have emerge as a product of the growing prevalence of fear of crime in western societies, and nowhere else is this more obvious than with fear of terrorism. Public opinion and perceptions of crime are highly

influential in government decision making and as such, fear of terrorism has taken hold over political discourse in a post 9/11 world (Altheide, 2006). This feeds into the demand for higher levels of securitization, with no attention being given to the implication this additional security can have in the realm of human rights violations (Pain, 2014). A point has been reached wherein fear of crime itself has become one of the major motivators of political decision making and while terrorism is far from the only player in this phenomenon, it undoubtedly stands out as one of the most influential and continues to shape public opinion and society as a whole (Altheide, 2004).

Counter-terrorism – the act of attempting to thwart terrorism through legislative reform – has become an embedded form of racial violence in western societies. The concept of the folk devil demonstrates a severe and ever-present form of violence towards racialized individuals, particularly those of Middle Eastern descent as the moral panic around terrorism has sought to group them with the fabricated folk devil (Cohen, 1972). This is especially troubling as it is directly responsible for a number of forms of institutional racism which have become prominent in the twenty-first century, such as with France's decision to ban the Burkini following the Nice attacks (Micallef, 2016). Liberties and freedoms which make up basic human rights are continuously restricted often in a violent manner as a result of the policies and actions which have manifested as a result of the moral panic around terrorism (Dragu, 2011).

It is important to consider the role that media plays. The degree to which the media discusses terrorism has grown at an astonishing rate since 9/11 and so too has public consumption of terror based media. The increased consumption has led to increased levels of fear of crime (Altheide, 2004). The degree to which media can influence public opinion then plays back into the political discourse of fear. This produces a sort of cyclical reinforcement of

fear of crime and subsequent justifications for increased security and otherwise irrational or extreme policy shifts. These shifts in policy can then have detrimental implications in the rights of countless citizens, particularly those whose race or ethnicity associates them with the act of terrorism as a result of media portrayals of the terrorist (Altheide, 2004; Pain, 2001).

Media outlets in Canada and around the world play an instrumental role in determining who is seen as a typical criminal, and who is portrayed as the victim. Racialized offenders are far more likely to be labelled not only as terrorists, but in such a way that perpetuates fear towards their ethnicity in general (Odartey-Wellington, 2009).

Terrorism and the Media

Media plays a pivotal role in shaping public perceptions of and attitudes towards various criminal offences and those who are painted as the perpetrators of these acts (Schissel, 2006). Furthermore the media influence in the area of criminal activity is of great importance when considering the depictions of how common certain criminal acts are — particularly those that are exceptional or otherwise extraordinary in nature. In the case of a crime such as terrorism, which is relatively uncommon, the media is heavily involved in making such a crime appear as though it is much more prevalent than it actually is, through decontextualization and sensationalizing the events. This is achieved by the focus being placed on providing only information that will hold public interest — regardless of accuracy, which is further cemented through the use of the expert figure (Schissel, 2006). Fear of terrorism has in part been manufactured and has become a long lasting moral panic. Watching the news surrounding terrorism has been positively associated with increased perceived risks with regards to being a victim of such an attack (Altheid, 2004). For instance Nellis and colleagues (2012) point out that the media can contribute to continuing this fear of crime around the moral panic of terrorism.

The United States in particular has seen a tremendous shift in policy over the years following the 9/11 attacks that have been linked to media coverage, incitement of fear, and the moral panic which has ensued. As a result much of the policy reform, such as changes to legislation enacted by government officials that pertains to airport security and terrorist threats has been directly linked to the creation of this moral panic (Rothe et al., 2004). The issue is intensified by how the definition of terrorism itself continues to be skewed. This is to say that general acts of violence, committed by certain individuals, particularly those of the racial minority and of non-Judaeo-Christian faiths, are named terrorist acts immediately by media sources and government officials even when they do not meet the legal or the political definitions of terrorism (Carver, 2016). This can easily be contributed to the folk devil of what western societies have come to know as the terrorist (Cohen, 1972). While it remains important to understand the dangers which terrorism can pose, it is equally imperative that rational decisions be made, otherwise a continuation of failed policy changes will most definitely continue be seen (Mythen et al., 2006). As a result it is easy to see that terrorism, while a real and dangerous form of crime, has seen an escalation in discourse and policy changes following the attacks of 9/11 while an actual influx of terrorism, especially in relation to other forms of violent offences, remains yet to be seen.

At the core of the major issues of violence and power dynamics in counter-terrorism action are the basic human rights violations which such policy changes entail. Following 9/11 there has been constant, seemingly endless increases in security systems and procedures in airports and elsewhere in western societies. Full body scanners have become ubiquitous in the United States and are becoming more prominent globally in spite of the clear violations of basic privacy rights which are entailed with implementing such technologies (Mironenko, 2011).

While it cannot be argued that insuring safety of citizens is a prime responsibility of government, there remains a question as to what extent human rights may be violated to achieve this, and as per the definition of a moral panic, there is little concern shown towards basic liberties if it means combating the perceived threat (Cohen, 1972). A case study in Australia showed that human rights safeguards have effectively been removed when concerning the implementation of security efforts against terrorism with respect to travel, and this is certainly not an unusual situation in post-modern western societies (Williams, 2014). Furthermore, the power given to certain agencies by legislation, such as the Prevention of Terrorist Travel Act (PTTA), allows for revocation of rights, without any requirement for justification other than that it was a precautionary measure to prevent a potential security breach (Government of Canada, 2015; Dragu, 2011). This apparent sacrifice of freedom for security, whether real or perceived has effectively made fear of terrorism one of the greatest moral panics of the twenty-first century.

Research Statement

Though a great deal of research currently exists around terrorism, moral panics, and fear of crime, this research has largely ignored the discourse of the online world such as social media. As a result, little to no attention is being paid to how moral panics surrounding terrorism have intensified and how mounting public opinion on anti-terrorism measures are expressed on social networks such as Twitter. Given that Twitter in particular allows for the general populous to engage in more direct discussion with public officials, it is of the utmost importance to consider this rapidly evolving world of discussion. The goal of this research is to fill in some of the knowledge gaps that exist in this area as a result of the lack of focus on this ever-expanding source of readily available and undeniably useful source of information that is so vast and all-encompassing.

Research Question and Objectives

The purpose of this thesis is to determine how moral panics surrounding terrorism have influenced the discourse on Twitter with respect to the terror attacks which took place in Nice France in 2016. This research objective will be accomplished by conducting a frequency based content analysis on data collected from Twitter with respect to the terror attack on Nice France. Moreover this thesis will serve to demonstrate how such research with Twitter can be valuable to criminology and other social sciences, such as psychology. As it is yet a relatively untapped field, there exists a great deal of potential for future research by offering an efficient method to collect data that looks at uncensored opinions from the public.

Upon realizing the moral panic which revolves around terrorism the question then becomes to seek an understanding of how this is displayed in the online world of twitter. Moreover, a comparative analysis of how this public opinion impacts government decisions is also key. Therefore, the research question of this thesis is to determine how moral panics around terrorism have influenced and were influenced by the discourse on Twitter with respect to the terror attacks which took place in Nice France.

The current study made use of an exploratory approach to the Nice attacks that occurred in 2016. The major theme, with regard to moral panics, was fear of crime. The goal was then to see how this fear relates to human rights violations and extreme policy measures. The research employed a non-directional research hypothesis, meaning that once the research process begins, the data itself was then able to guide both the direction and content. A non-directional hypothesis is important as it can account for the uncertainty that exists in delving into this new methodological approach to understanding the role Twitter may play in fear of crime. As this is an entirely new methodological approach, relying heavily on computer technologies, it was

important to account for potential inconsistencies with other research – for example opinions online are unlikely to be influenced by the social desirability effect. Furthermore it was also important to consider that, while computers will perform the tasks given to them, they are subject to making errors relative to what decisions are made by the user.

Methodology

The data for this thesis was gathered by using a content analysis based on the data collected from Twitter. The data-set of tweets were collected beginning in July of 2016 over a two week period. Approximately 16 million tweets were collected in total, however through and initial filter this was reduced to just over 50,000 on the first iteration of sorting, and just under 40,000 on the second iteration. These retrieved tweets were collected via being sorted into several categories, with 1,858 tweets being collected with relevance to the Nice attack on the first iteration and 1,230 on the second. This resulted in two data-sets which combined gave a total data-set of 3,088 tweets – of course having some overlap between the two data sets.

Twitter

Twitter is one of many social media applications which emerged in 2006 and rose to prominence with the social media popularity surge in 2010. Twitter was founded and invented by Jack Dorsey, Noah Glass, Biz Stone, and Evan Williams who developed the web-based application in March of 2006 and launched it to the public the following July. Twitter is a web application that, as mentioned, falls into the category of social media applications. It allows users to post brief messages, referred to as 'tweets,' and share them with other users (either privately to just followers, or publicly to anyone who has access to the application). Users can 'follow' other individuals to have their tweets appear on their 'timeline' (as user specific homepage). Twitter also introduced the concept of the 'hashtag,' by prefacing text with the number sign it becomes a

hashtag which can then be clicked on to allow a user to view other tweets from various individuals who have also used the same hashtag. Trending topics are yet another feature available on Twitter, wherein certain world events or other topics can be viewed (along with a variety of associated tweets) based on how popular the given topic is on Twitter at the time (based on use of common terms, links, and hastags). Direct messages, tweeting 'at' people, and replying to tweets are among the various other features available to users on Twitter. As of October 2017, Twitter had approximately 330 million active user accounts (Molina, 2017).

While it is true that Twitter and other social networking applications and websites offer freedom to the general population to send their own messages out to the world, there is also the notion that news articles, both fake and legitimate, are perpetuated as well on such online realms. Features such as the ability to share posts made by others as well media outlets to connect on a more personal level and on a more widespread level make the spreading of media coverage all the more rapid and ubiquitous than ever before. With respect to this mass spreading of information – both verifiable and false – it is important to consider how this plays into the depiction and discussion of crime on a social media platform such as Twitter. As the media has played a pivotal role in defining to society who the terrorist is, it is crucial to consider how this plays into online discussion on Twitter. A majority of criminal offences labelled as terrorism in recent years have been called so over a connection, perceived or real, with religious extremism, in particular it is often linked with extremism in the name of the Muslim faith (Odartey-Wellington, 2009). Given this the construction of who is the terrorist is of the utmost importance in understanding thecontinued perpetuation of fear in relation to this criminal phenomenon.

Active Tweet Retrieval-Visualization

The system used to collect the data-set and to sort the data collected is referred to as Active Tweet Retrieval-Visualization (ATR-Vis). ATR-Vis works by use of a technique in computing science known as data mining (Makki et al., 2017). Data mining is a series of techniques in computer science that seek to find interesting or relevant data amidst an exceedingly large set of data. From here the system relies on what is known as a machine learning algorithm (that is to say an algorithm that works better and more efficiently based on input from the user which the program then takes into consideration in future computations) to sort the tweets into the appropriate categories which have certain initial conditions ascribed to the data. ATR-Vis works in such a way that for each topic or debate, denoted as d_i from the set D of all topics or debates, to find a set of corresponding tweets, T_i from the set of sets of tweets called T, such that there are no intersections with any other set of tweets, T_i whenever the index values 'i' and 'j' are not equivalent. This can also be seen as a function that, for any tweet 't', $f(t_k) = d_i$ if and only if the retrieval method used associates t_k with d_i , else $f(t_k) = \emptyset$ (wherein \emptyset denotes the empty set) if t_k has no relevance to the topic concerned (Makki et al., 2017). ATR-Vis performs its algorithm through use of key terms and features with which tweets can be associated. Here is how it works:

- 1) The program first seeks to sort tweets that it concludes are undoubtedly associated with a given category or topic based on the information given.
- 2) The Tweets can be manually sorted by the user (Makki et al., 2017). For example the program may consider a tweet to be relevant to multiple topics or none and then calls for the user to choose which topic it belongs to.

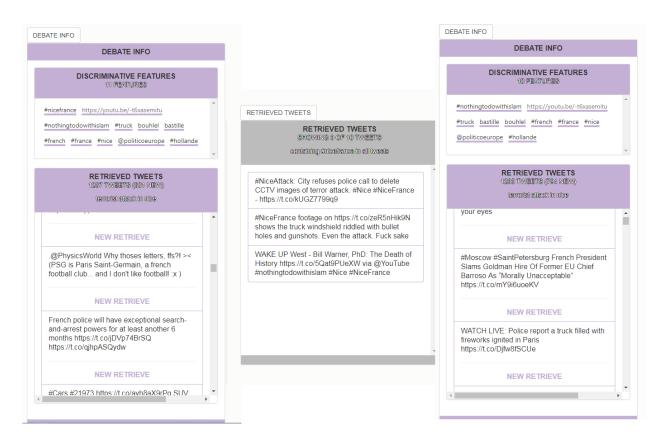


Figure 4.1: Tweet views and discriminative features in ATR-Vis.

- 3) The user has the option to associate recurrent hashtags (a tool available in Twitter to associate a tweet to a given topic) with any of the given topics.
- 4) After performing any amount of manual sorting the researcher can then update the system and the machine learning algorithm will run anew and sort more tweets based on the user's manual sorting decisions as implied by the term machine learning (Makki et al., 2017).
- 5) Once all potential tweets have been sorted, the data is made available as a raw text file that is encoded to a particular category and from here the researcher can analyze the data in this format.

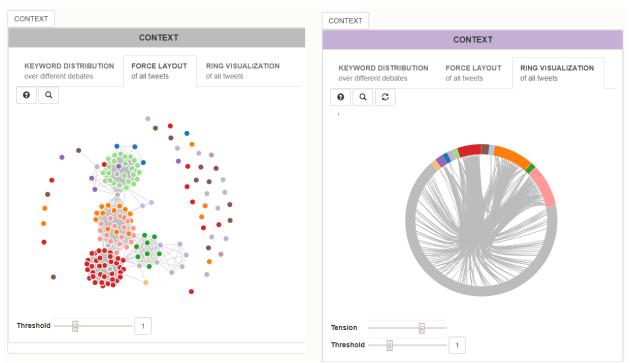


Figure 4.2: Two of the views of tweet distribution across topics available in ATR-Vis; force layout (left) and ring visualization (right).

For the purposes of this research project, the entire data-set used was collected during the first two weeks of July, 2016 by one of the developers of the system (Dr. Raheleh Makki). These tweets were sorted by the researcher using ATR-Vis first in the spring of 2017 (first iteration) and again in the winter of 2018 (second iteration). Two distinct text files were created for the topic of the Nice attacks (by ATR-Vis) after the sorting process was completed. Both of these texts files were used in this thesis in order to have a data-set of tweets to perform the analysis on, but also to have two different sets to compare the differences between two iterations of the sorting algorithm based on different user-guided decisions. For example, on the second iteration, the researcher associated the hashtag "#niceattack" strictly with the attack of Nice category, this was not done during the first iteration of sorting. Checking for both similarities and differences between the two sets of tweets was an important process in assessing the validity and efficiency of the program as it was employed, keeping in mind however that it is subject to human error

with respect to sorting decisions made by the researcher (myself) – due to its use of the machine learning algorithm.

Content Analysis

The objective then from here in terms of methods was to perform a content analysis on each of the two data-sets of tweets which were sorted by ATR-Vis into the category pertaining to the attack on Nice. In order to successfully complete this task in a realistic time-frame a program was coded to track common occurrences in the set of tweets pertaining to the Nice attacks, that is to say common themes were tracked based on the occurrence of certain key terms and phrases. This console-based application, referred to from here on by its name, Phrase Tracker, was written using the C++ programming language and its task was to parse through a file that contains the raw formatted text of all the relevant collected tweets and, on each iteration of the run, to determine the number of times that a given word or phrase appears.

From here, Phrase Tracker then exports as a text file the full list of words and phrases which were searched for, along with the number of occurrences and the frequency (in percentage) with respect to the total number of tweets in the given data-set. The words and phrases used in the study were selected by the researcher (myself) based on terms commonly associated with terrorism and response thereto. Some initial searches (using the find command available for text files) were also performed on the data-sets to aid in selecting some initial terms which were then used to determine further terms to search for. Each of these words and phrases were assigned to one (and only one) of five categories which were selected and coded by the researcher (myself). The categories used were: act of terrorism, anti-terror measures, crime and violence, ideological and response, and immigration. The frequency with which the total value of all tweets belonging to an assigned category was also tracked and calculated based on the results

produced by Phrase Tracker – this part however was done by hand after the program accomplished its set goals. The full list of all words and phrases searched for within each of the two text files of tweets using Phrase Tracker – along with their respective categories – can be found in Appendix A. The words and phrases along with the categories in which they were each sorted were all selected and coded by the researcher (myself). The entirety of the source code along with steps used in compiling and running the software can be found in Appendix B.

With respect to content analysis itself, the data provided by Phrase Tracker which hails from the sample of tweets provided in each of the data-sets formed the basis on which all analyses were completed. A content analysis can of course be done in either a qualitative or quantitative application – for the purposes of this research solely quantitative data, relying on statistics was used (Frankfort-Nachmias, Nachmias, & DeWaard, 2015). In the case of quantitative analysis, content analysis provides an exceptionally valuable means by which to translate coded words, terms, or phrases into numerical data that can be more accurately interpreted. It also provides the ability to easily replicate data if it is indeed valid through future studies applying similar approaches. Individual words as well as phrases were counted and each of these words and phrases was assigned to a category which was coded and accounted for by the researcher (myself). Frequencies were then tracked in percentages by determining the ratio of times a given word or term appeared with respect to the total number of tweets as well as comparing the total number of times that words and phrases from each category with the total number of tweets. This content analysis followed solely a frequency approach in the analysis of all of the data collected with respect to determining how the moral panic around terrorism influences discourse on Twitter.

Frequency data was exported to a text file. This file was then opened in a spreadsheet program (LibreOffice Calc) to produce charts and graphs to demonstrate the visuals to follow in the results section. Tables demonstrating raw data were also produced following the exporting of data from Phrase Tracker. The coded terms and categories were then used, to discern reliable data to derive an answer to the research question and from their a solution to the problem proposed in this study.

The non-directional hypothesis used in this study to understand the role Twitter plays in fear of crime was narrowed down to provide more conclusive response following analysis of the results. The data collected provides insight into the general flow of discussion on Twitter with respect to the Nice attack. The frequencies with which key words and phrases occurred in the sample of tweets provides a contextualization of the discussion which took place. Further sorting such frequencies on a categorical basis helped to determine the rate at which words and phrases with common ground appeared. This information cannot necessarily be generalized to how all acts of terrorism will be discussed on Twitter, however it does provide a great deal of insight into how moral panic and fear of crime influenced the Twitter discussion around the attack on Nice France. It is also important to note that any results cannot be generalized to other social media platforms – Twitter differs in a number of key areas (such as post length limits) and the user base from platform to platform varies far to greatly to assert any such generalizations without further data and analyses.

Theory

As the central focus of this research pertains to moral panics as they relate to terrorism, it is evident that the most important theoretical framework considered would be that of Stan Cohen's (1972) work in "Folk Devils and Moral Panics: The creation of the mods and the

rockers." This stands to reason as this work outlines the very concept of what exactly a moral panic is and moreover, who the characters at play in this phenomenon are. While terrorism itself is by no means the same concept as youth gangs and resulting violence, the conceptual framework outlined by Cohen in this theory are inexplicably linked to terrorism, especially when the media becomes actively involved.

Terrorism has effectively become the most prominent moral panic in the twenty-first century, and the counter-terror measures which exist presently are directly a result of what Cohen discusses in his model. Thus it remains ever important to make use of such a critical hypothesis which remains ever relevant. It is equally as important to take into consideration the framework demonstrated in Schissel's (2006) actors in the theatre of crime. The foundation of this framework hinges of course on the moral panic and folk devil described by Cohen (1972), but provides a uniquely important insight that focuses more specifically on crime or acts that have been deemed to be criminal in nature (Schissel, 2006). Terrorism situates itself well within the framework delineated in Schissel's (2006) work, the various actors can be seen to be overwhelmingly active and present. The media evidently plays one of the largest roles in the moral panic around terrorism, but it is also important to consider how the other actors mentioned are involved. Whether it be government officials (particularly those on the right side of politics) running on platforms to be stricter on immigration or evangelical groups calling for a prohibition of an entire religion – it is clear that these actors all play a critical role in the development of what has been and continues to be the moral panic around terrorism (Schissel, 2006). The victims of terror attacks, such as with 9/11 as well as the more recent attack on Nice play a central role in being used by those who instill the panic to evoke fear and hatred within societies. The folk devil is equally present – whether it is immigrants or refugees, a portion of the public

has been influenced to fear and hate based on assumptions based in the moral panic (Schissel, 2006). As such it remains evident that using the theory and frameworks of both Cohen (1972) and Schissel (2006) is of the utmost important in being understanding the moral panic around terrorism

Results

The data when analyzed provided a number of different results – some expected others not. Both data-sets were subject to the same frequency-based content analysis, using the same words and phrases and coding them into the same categories – making comparison between the two data-sets more efficient and accurate. The most important analysis comes from the total occurrences and percentages relative to the total tweets with respect to the categories in which words and phrases fall. While it is important to discuss as well results for individual words and phrases, it is evident the larger picture of categorical frequency provides more useful data to analyze.

Data-set 1

For data-set 1 (n=1858) an overwhelming quantity of the words and phrases found in the set of tweets came from the act of terrorism category (terror, terror attack, terrorism, terrorist(s) being the words and phrases in this category). The total occurrence of words from this category was 188 (10.1184% of tweets containing). Crime and violence came as a relatively close second, accounting for 123 (6.62% of tweets containing) occurrences of the words and phrases searched. Anti-terror measures came in as the next most common category for words or phrases to be found within the set of tweets, giving total occurrences of 47 (2.5296% of tweets containing). The categories of ideological and response and especially that of immigration provided surprisingly lower results with values of 23 (1.2379% of tweets containing) and 13 (0.6997% of

tweets containing) respectively. The total number of words and phrases found across categories within data-set 1 was 394 (21.2056% of tweets containing).

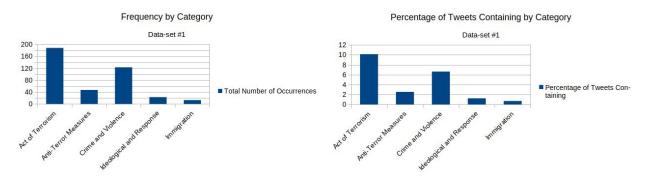


Figure 6.1: Total occurrences of words and phrases by category (left) and percentage of tweets containing words and phrases by category (right), for first data-set.

With respect to individual words within categories there were a number of words and phrases which dominated their respective categories as well as certain words and phrases which did not occur at all within the data-set. As table 6.1 below illustrates the dominant word in the act of terrorism category (n=188) was 'terror', accounting for 54.79% of occurrences in the category. The word 'terrorist' (plural and singular) accounted for 25%, while 'terror attack' and 'terrorism' accounted for 18.52% and 10% respectively, making no word or phrase from the category unseen within the data-set.

Word or Phrase	Number of Occurrences	Percentage of Category
terror	103	54.79%
terror attack	20	18.52%
terrorism	18	10%
terrorist(s)	47	25%
Total	188	

Table 6.1: Comparison of tweets within act of terrorism category for data-set 1.

Table 6.2 below illustrates, the dominate word in the anti-terror measures category (n=47) was

'ban', accounting for 87.23% of occurrences in the category while 'anti-terror' (with and without the hyphen) accounted for a total 12.77% of the occurrences and each of the remaining terms ('anti-terrorism', 'counter-terror', and 'counter-terrorism') accounted for 0% of the tweets from the category.

Word or Phrase	Number of Occurrences	Percentage of Category
anti-terrorism (anti terrorism)	0	0%
anti-terror (anti terror)	6	12.77%
ban	41	87.23%
counter-terror (counter terror)	0	0%
counter-terrorism (counter terrorism)	0	0%
Total	47	

Table 6.2: Comparison of tweets within anti-terror measures category for data-set 1.

Table 6.3 demonstrates the distribution of word and phrase occurrences for the crime and violence category in data-set 1 (n=123). The major dominant words were 'kill' and 'killed' accounting for 53.66% and 25.2% of the occurrences within the category respectively. The words 'killing' (7.31%), 'violence' (5.69%), 'crime' (3.25%), 'criminal' (3.25%), and 'violent' (1.63%) each accounted for a small quantity of the occurrences, while 'incite' was not found within the data-set.

Word or Phrase	Number of Occurrences	Percentage of Category
crime	4	3.25%
criminal	4	3.25%
incite	0	0%
kill	66	53.66%
killed	31	25.2%
killing	9	7.31%
violence	7	5.69%
violent	2	1.63%

Total	123	
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Table 6.3: Comparison of tweets within crime and violence category for data-set 1.

Table 6.4 delineates the occurrence percentages of words and phrases within the ideological and response category. For this category 'hate' dominated, accounting for 52.17% of occurrences, with 'fear' coming second, making up 26.09% of occurrences. The words and phrases 'hatred' (8.7%), 'islamic terrorism' (8.7%), and 'extremism' (4.35%) accounted for a minuet portion of occurrences, while 'bleeding heart', 'extremism', 'fear of terrorism', 'islamic extremism', and 'violent extremism' did not occur at all.

Word or Phrase	Number of Occurrences	Percentage of Category
bleeding heart(s)	0	0%
extremism	0	0%
extremist	1	4.35%
fear	6	26.09%
fear of terrorism	0	0%
hate	12	52.17%
hatred	2	8.7%
islamic extremism	0	0%
islamic terrorism	2	8.7%
violent extremism	0	0%
Total	23	

Table 6.4: Comparison of tweets within ideological and response category for data-set 1.

Finally, table 6.5 shows occurrence percentages within the immigration category. The terms 'immigrant' and 'immigration' were the only two terms to be found and accounted for 61.54% and 38.46% of all occurrences within the category respectively. The remaining terms, 'refugee' and 'refugee crisis' were not found, again likely due to ATR-Vis sorting tweets into a topic which was not pertaining to the Nice attack.

Word or Phrase	Number of Occurrences	Percentage of Category
immigration	5	38.46%
immigrant	8	61.54%
refugee	0	0%
refugee crisis	0	0%
Total	13	

Table 6.5: Comparison of tweets within immigration category for data-set 1.

Data-set 2

For data-set 2 (n=1230) the category of act of terrorism came out as the most common category with the total number of occurrences being 98 (7.9675% of tweets containing) with the category of crime and violence being a close second, with words and phrases occurring a total of 94 times (7.6423% of tweets containing). Words and phrases from the ideological and response category as well as anti-terror measures held relatively similar occurrences for the second data-set, with the occurrences of such terms from the anti-terror measures category being significantly less than with the first data-set. Total occurrences were 18 (1.4634% of tweets containing) for anti-terror measures and 15 (1.2195% of tweets containing) for ideological and response. Words and phrases from the immigration category were almost non-existent within the second data-set, occurring only 3 times (0.2439% of tweets containing) – potentially due to tweets related to this topic being sorted into another one of the topics being tracked by ATR-Vis, the refugee crisis. The total number of words and phrases found across categories was 228 (18.5366% of tweets containing).

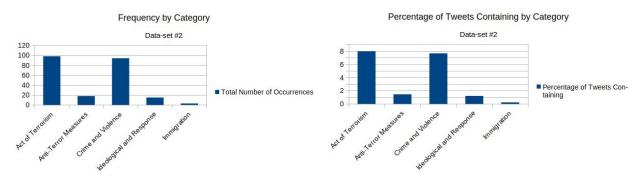


Figure 6.2: Total occurrences of words and phrases by category (left) and percentage of tweets containing words and phrases by category (right), for second data-set.

With respect to individual words within categories similar occurrences with certain terms dominating and others not appearing at all could be seen with data-set 2 as with data-set 1. As table 6.6 below illustrates the dominant word in the act of terrorism category (n=98) was 'terror', accounting for 56.12% of occurrences in the category. The word 'terrorist' (plural and singular) accounted for 33.67%, while 'terrorism' and 'terror attack' accounted for 8.16% and 2.04% respectively, making no word or phrase from the category unseen within the data-set.

Word or Phrase	Number of Occurrences	Percentage of Category
terror	55	56.12%
terror attack	2	2.04%
terrorism	8	8.16%
terrorist(s)	33	33.67%
Total	98	

Table 6.6: Comparison of tweets within act of terrorism category for data-set 2.

Table 6.7 below illustrates, the dominate word in the anti-terror measures category (n=18) was 'ban', accounting for 72.22% of occurrences in the category while 'anti-terror' (with and without the hyphen) accounted for a total 27.78% of the occurrences and each of the remaining terms ('anti-terrorism', 'counter-terror', and 'counter-terrorism') accounted for 0% of the tweets from the category.

Word or Phrase	Number of Occurrences	Percentage of Category
anti-terrorism (anti terrorism)	0	0%
anti-terror (anti terror)	5	27.78%
ban	13	72.22%
counter-terror (counter terror)	0	0%
counter-terrorism (counter terrorism)	0	0%
Total	18	

Table 6.7: Comparison of tweets within anti-terror measures category for data-set 2.

Table 6.8 demonstrates the distribution of word and phrase occurrences for the crime and violence category in data-set 2 (n=94). The major dominating words were 'kill' and 'killed' accounting for 55.32% and 24.47% of the occurrences within the category respectively. The words 'killing' (9.57%), 'criminal' (5.32%), 'crime' (3.19%), and violence (2.13%) each accounted for a small quantity of the occurrences, while 'incite' and 'violent' were not found within the data-set.

Word or Phrase	Number of Occurrences	Percentage of Category
crime	3	3.19%
criminal	5	5.32%
incite	0	0%
kill	52	55.32%
killed	23	24.47%
killing	9	9.57%
violence	2	2.13%
violent	0	0%
Total	94	

Table 6.8: Comparison of tweets within crime and violence category for data-set 2.

Table 6.9 delineates the occurrence percentages of words and phrases within the ideological and response category. For this category 'hate' dominated, accounting for 53.33% of occurrences, with 'fear' coming second, making up 20% of occurrences. The words and phrases 'hatred'

(13.33%), 'extremism' (6.67%), and 'islamic terrorism' (6.67%) accounted for a minuet portion of occurrences, while 'bleeding heart', 'extremism', 'fear of terrorism', 'islamic extremism', and 'violent extremism' did not occur at all.

Word or Phrase	Number of Occurrences	Percentage of Category
bleeding heart(s)	0	0%
extremism	0	0%
extremist	1	6.67%
fear	3	20%
fear of terrorism	0	0%
hate	8	53.33%
hatred	2	13.33%
islamic extremism	0	0%
islamic terrorism	1	6.67%
violent extremism	0	0%
Total	15	

Table 6.9: Comparison of tweets within ideological and response category for data-set 2.

Finally, table 6.10 shows occurrence percentages within the immigration category. The terms 'immigration' and 'immigrant' were the only two terms to be found and accounted for 66.67% and 33.33% of all occurrences within the category respectively. The remaining terms, 'refugee' and 'refugee crisis' were not found.

Word or Phrase	Number of Occurrences	Percentage of Category
immigration	2	66.67%
immigrant	1	33.33%
refugee	0	0%
refugee crisis	0	0%
Total	3	

Table 6.10: Comparison of tweets within immigration category for data-set 2.

Comparison of Data-sets

As mentioned, the main purpose for having results for two separate sets of tweets was to draw comparisons between the two and discuss similarities and differences and what this could mean. It is important to note that while this is not replication of the current study, it does help to offer further evidence in the effectiveness and consistency of the methods used – most importantly as it pertains to the new technology which was implemented (ATR-Vis).

The two data-sets possessed a number of similarities and few substantial differences. Both data-sets 1 and 2 demonstrated that terms in the act of terrorism category were the most prevalent, with crime and violence coming secondary, followed by anti-terror measures, ideological and response, and finally the least prevalent category being immigration. Moreover the most common terms within each category remained consistent in both data-sets, each category carrying one particular term that held over 50% of the total occurrences, and the act of terrorism category having a single term that consistently held more than three quarters of the total occurrences ('ban'). The similarities and differences are best illustrated by figure 6.3:

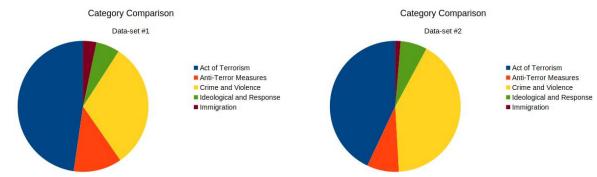


Figure 6.3: Comparison of category shares of total occurrences of searched terms(n=394 for data-set 1 and n=228 for data-set 2).

There were however a select few noteworthy differences between the two data-sets. First in that there is much closer split between the categories of act of terrorism and crime and violence in data-set 2 than was the case with data-set 1 (see figure 6.3 above), with data-set 2

having 98 and 94 for the two categories respectively and data-set 1 having 188 and 123 respectively. The next major difference can be seen in comparing the anti-terror measures category between the two data-sets. For data-set 1 this category had a higher frequency relative to the total number of tweets than was the case with data-set 2, likely a result of the significantly lower occurrence of the most prevalent word from this category ('ban') that could be seen in data-set 2. The ideological and response category remained consistent (relative to the total number of tweets) across both data-sets, while the immigration category was moderately less prevalent in data-set 2 than in data-set 1. Finally the total number of tweets overall – and by extension the total number of searched terms found – differed by 628 total tweets that were received (n=1858 for data-set 1 and n=1230 for data-set 2). This was likely a result of slightly different decisions made by the researcher (myself) during the sorting process using ATR-Vis.

Discussion

The results expressed above show a number of interesting answers to the hypothesis and research question posed in this thesis. To no surprise words specifically pertaining to the act of terrorism were the most prevalent across both data-sets, however to some surprise tweets which discussed immigration were few and far between based on the findings of this study. While this could, as mentioned, be associated with ATR-Vis potentially sorting tweets that discussed immigration and refugees into a different topic category, it still remains interesting to note the lack of appearances of these forms of discussion given the folk devil that currently exists with respect to terrorism in the west (Cohen, 1972; Schissel, 2006).

The prevalence of fear invoking words such as 'kill', 'killed', and 'killing' also comes as a sort of expectation if the theories and frameworks proposed by Cohen (1972) and Schissel (2006) are to be noted as relevant to social interactions online. While the total quantity of tweets

which contained the searched terms was lower than expected, it remains evident that moral panic is ever at work even on an online platform such as Twitter. Thus a major result from this study was determining that online discussions on Twitter immediately following (approximately a period of two weeks for the purposes of this study) an act of terrorism – as least in a western, European society and undoubtedly influenced by the moral panic which exists around terrorism, and moreover by the actors in the theatre of crime as they relate to terrorism as a form of extreme crime (Schissel, 2006).

The research question of this study was centred around determining how discussion on Twitter was influenced by moral panics and fear of crime – and in turn if this could strengthen or cement the moral panic itself. The results found from the data using the frequency based content analysis as outlined provide a great deal of insight into answering the question posed. In addition to this, the results have allowed for the formation of a more concrete hypothesis from the non-directional hypothesis proposed by this study – that is that moral panics and fear of crime do influence discussion on Twitter. The frequency of both terms in the act of terrorism category as well as the crime and violence category demonstrate that discussion on Twitter in the two weeks following the Nice attack were heavily prone to have the issue of terrorism and of the prevalence of violent crime as a central focus in the discourse. This is also key as it shows that the major areas of focus for discussion online were in the realm of the specific act of terrorism as well as fear of crime and the violence associated therein.

The overwhelming percentage of tweets in the anti-terror measures category being attributed to the word 'ban' further demonstrates that this particular form of legislative reform – be it banning immigration, refugees, or religious practices – was at the forefront of the presence of the moral panic around terrorism as it was portrayed and discussed on Twitter. This as well

demonstrates the lack of regard for consideration of human rights as banning the perceived threat preemptively is given a higher degree of focus than protecting the rights of individuals. The lack of terms from the ideological and response category and especially from the immigration category do pose some questions however. It is likely that the words from the ideological and response category were not as central to the discussion as the terms within this category were not of the typical laymen style of language that is more prevalent on social media platforms. It is impossible to account for age range on Twitter and moreover the style of language used is not subject to any form of revision as one would expect in more professional environments – such as journalism and academics. With respect to the lack of occurrences of terms from the immigration category this has not answer that holds absolute certainty, however it was likely a result of ATR-Vis sorting tweets with terms from this category into the topic of the refugee crisis which, alongside the attack on Nice, was one of the topics tweets from the initial set of data were sorted into.

The comparison between the two data-sets proved to be a vital portion of the methodological approach as well as the results section. Were no comparison to have been drawn, the purpose of analyzing the two data-sets would have been moot. Such comparative analyses first and foremost help to determine the reliability of both the results and the methods used. The similarities between the two data-sets far surpassed the differences and as such this demonstrates that the methodological approach used and the results produced therein are more reliable than if only one data-set were used or if the two data-sets had differed by more. In particular the similarities in the order of prevalence by category was particularly important to ensuring reliability in the answer given to the research question posed.

The results obtained in this study provide a starting point to the answer of the role of moral panics on social media platforms. While the results cannot stand on their own to demonstrate beyond any reasonable doubt the overall picture of how moral panic and fear of crime are at play in online worlds (particularly Twitter) they do offer insight into what one can expect to occur online following events such as terror attacks. It is important to note however that more research is still needed particularly in comparing the data found in these sets of tweets which were sorted based on their relevance to the Nice attack and general everyday discussions on Twitter outside of that which specifically relates to discussion around such an act of violence. Overall the study succeeded in its research objective of determining how moral panic and fear of crime are at play in discussions on the social media platform Twitter.

Conclusions

This study sought to provide at least some context and answers to the question of how moral panics influence discussion on social media – particularly Twitter. Further research is needed to determine the general impact which moral panics and fear of crime have on such platforms which invite an unprecedented level of global social interaction to occur. It is therefore evident that ATR-Vis and potential future tools with similar capabilities, but tailored to other platforms are key in coming to a better comprehension of the matters discussed in this thesis.

Another area in which to delve is in determining what impact such online discourse could have on the policy change and legislative reforms commonly associated with moral panics. That is, more research is still needed to determine how online discussions on places like Twitter can influence counter-terror measures. While it cannot be argued that insuring safety of citizens is a prime responsibility of government, there remains a question as to what extent human rights may be violated to achieve this, and as per the definition of a moral panic, there is little concern

shown towards basic liberties if it means combating the perceived threat (Cohen, 1972). A case study in Australia showed that human rights safeguards have effectively been removed when concerning the implementation of security efforts against terrorism with respect to travel, and this is certainly not an unusual situation in post-modern western societies (Williams, 2014). Furthermore, the power given to certain agencies by legislation, such as the Prevention of Terrorist Travel Act (PTTA), allows for revocation of rights, without any requirement for justification other than that it was a precautionary measure to prevent a potential security breach (Government of Canada, 2015; Dragu, 2011). This apparent sacrifice of freedom for security, whether real or perceived has effectively made fear of terrorism one of the greatest moral panics of the twenty-first century.

Counter-terrorism has also brought forth as a system of violence and xenophobia which continuously create enemies through the concept of the folk devil, which in turn has threatened civility in western societies under circumstances which concern this supposed threat through instances such as the revoking of passports or unnecessary detainment in airports (Rothe et al., 2004; Welch, 2011). Additionally, societies in the west, particularly the United States, have seen major shifts in what is considered expendable in terms of human rights if it means defending societies from the threat of terrorism, regardless of how unfounded these perceived fears may be (Welch, 2011; Cohen, 1972). It seems evident that the dynamics of moral panics have influenced major forms of racialized violence and as a result a number of essential human rights are made to be unimportant over a perception of intensified fear which is manifested especially in this particular moral panic (Cohen, 1972).

Even if terrorism were to be the immense issue which the media and certain governments have made it out to be, there is still little evidence which would show such legislative shifts

towards securitization of airports as being successful in their supposed goals. Unlawful detainment and persecution of innocent individuals at airports has become increasingly prominent and, to a degree, accepted as a necessary precautionary measure in keeping society safe from violent crime. A prime example of such violations of human rights which lead to zero increase in actual safety occurred in Canada in August of 2013. A group of individuals, supposedly associated with Al-Qaeda, were detained in Toronto and later found to have had no such association, there detainment had only been related to their ethnic and cultural backgrounds of South-Asia Muslim descent (Odartey-Wellington, 2009). An assessment of the United Nations Security Council's policies on combating terrorism found these policies ineffective at addressing the issue, furthermore these policies violate many human rights (Bianchi, 2006). In coming to terms with this lack of effectiveness it only further questions the legitimacy of dysfunctional legislation that, at every turn, appears to violate the most basic of human rights while failing to make society any safer for citizens. It remains therein evident that there a number of problematic concerns with how terrorism is presented in media and how this is intertwined with the definition of terrorism and the moral panics which hail from fear of crime in general.

Strengths and Limitations of the Study

The use of a data mining system such as ATR-Vis provided an immensely valuable means by which to sort through a vast quantity of data, thus permitting a sample size of tweets that would have been otherwise infeasible to have been done manually within the time constraints provided (Makki et al., 2017). The further use of the Phrase Tracker program also permitted for far more words and phrases to be accounted for than would have been otherwise possible, again in an exceptionally efficient time frame (the entirety of the code book in Appendix A can be searched for with results in less than an hour using Phrase Tracker). While it

is true that such a computer program may miss select related words or misspelled terms it remains evident that the benefits of using computer searching algorithms in this scenario outweigh the negative potential negative consequences associated with such reliance on technology.

With respect to content analysis in general, there are a number of important strengths to be considered. Content analyses are unobtrusive in nature and as such they require no research ethics board approvals. Furthermore such analyses allow for a great deal of data to be easily obtained and analyzed with little to no obstacles in doing so (Frankfort-Nachmias, et al., 2015). Reliability and replicability of data are also key advantages to using content analyses – as they can be done efficiently the ease of replication in other studies is greater than with other methods (Frankfort-Nachmias et al., 2015). The use of statistical analysis with such a method also further provides validity through numerical values – which cannot be done with methods that do not use such forms of analysis in the data interpretation process (Collins, 2014).

There are of course limitations to this proposed method. Foremost, spelling issues among individuals on Twitter. When analyzing content such as news articles or other forms of what is considered professional writing there is some expectation that proof-reading was completely to eradicate grammatical errors such as spelling mistakes. On the other hand, tweets have no such restrictions that prevent misspellings of words and other related grammatical issues, it was impossible to control for all possible ways that a given word or phrase could contain an erroneous spelling problem for example. While programming software that could better handle this may be possible, it is impractical with relation to the time constraints that are present as such an application would require a great deal of additional steps to consider and as a result far more code. Furthermore there is the issue that certain words which are contained within other terms

could have been double counted – for example 'terror' is a sub-word of 'terror attack', 'terrorism' and 'terrorist'. Therefore it remains the case that the Analyzer program was being used keeping in mind that some limitations were present with respect to searching for various potential incorrect spellings of words.

Another major limitation is in the availability of tweets. Twitter only permits a 1% of all published tweets to be collected for research by programs such as ATR-Vis. As a result many important tweets could be missed and it can also be argued that a generalization of the entire conversation that took place on Twitter may not be entirely possible. This is also further impacted by the filters used by ATR-Vis, which could present the issue of retrieving some tweets which are irrelevant, while simultaneously missing relevant tweets in its retrieval process (Makki et al, 2017). The time period in which tweets were collected could also have an influence on the data, more data over a longer period could have been collected if time and storage space would have permitted, and the exact time period in which tweets were collected also has a role in determining the overall data retrieved – for example if the data collection started immediately following the Nice attacks compared to if it had started several weeks after the attack had occurred.

There also exists a number of limitations with respect to the use of content analysis in general. As the program was designed to search for words and phrases which had to be chosen by the researcher, there can be issues in determining if the optimal words and phrases were accounted for, and whether or not certain words or phrases may have been excluded. The decision on which category a given word or phrase falls into is also in the hands of a single researcher, again leaving potential issues in determining if such categorization was done in the best manner possible. Finally, the codebook itself is subject to the biases of the researcher insofar

as it is designed and coded by a single researcher and remains entirely subjected to interpretation in its implementation and analysis – given that all words and phrases were chosen, sorted, and interpreted by a single researcher (Collins, 2014; Frankfort-Nachmias et al., 2015).

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Appendix A: Codebook

Table A.1 below gives a full list of the words and phrases utilized in the analysis of the data retrieved from Twitter. Each word and phrase is accompanied by a definition to aid in the explication of relevance to this thesis project.

Words and phrases are assigned to categories from the following list:

- Act of terrorism.
- Anti-terror measures.
- Crime and violence.
- Ideological and response.
- Immigration.

Word or phrase	Definition	Category
Anti-terror(ism)	In opposition to terrorism.	Anti-terror measures
Ban	To prohibit something.	Anti-terror measures
Bleeding heart(s)	A term given to individuals (general liberal or leftist) who express sympathy to certain groups or ideas by those holding more right-wing views.	Ideological and response
Counter- terror(ism)	Ideological measures used to address terrorist threats, often ineffective.	Anti-terror measures
Crime	An act which violates one or more laws governing an individual state or international policies.	Crime and violence
Criminal	One who commits or has committed a crime.	Crime and violence
Extremism	Having extreme political and/or religious views.	Ideological and response
Extremist	One who has extreme political and/or religious views.	Ideological and response
Fear	A feeling induced by the perception of danger or impending threat(s).	Ideological and response
Fear of terrorism	Ideological and response	Ideological and response
Hate	To dislike something immensely.	Ideological and response
Hatred	Intense dislike.	Ideological and response
Immigrant	Someone who has immigrated to another country.	Immigration
Immigration	The act of moving from one country to another.	Immigration

Incite	To encourage certain behaviour (often unlawful).	Crime and violence
Islamic extremism	Extremism associated (by politicians and news agencies) as being related to Islamic viewpoints.	Ideological and response
Islamic terrorism	Terrorism defined by political organizations as being committed in the name of the Muslim religion.	Ideological and response
Kill	To end the life of another living organism (another person for the purpose of this code book).	Crime and violence
Killed	Past tense of kill.	Crime and violence
Killing	The act of causing death – usually deliberately.	Crime and violence
Refugee	A person who has fled there home country for one of many reasons (famine, war, etc.) and sought dwelling and safety in another country.	Immigration
Refugee crisis	An international crisis occurring from a dramatic increase in refugees resulting from some major event (eg. war).	Immigration
Terror	A particularly extreme form of fear.	Act of terrorism
Terror attack	An act of violence based in terrorist ideologies.	Act of terrorism
Terrorism	An act committed by an individual or group that is politically motivated and intent on creating fear and anger in a society.	Act of terrorism
Terrorist(s)	One who commits acts of terrorism.	Act of terrorism
Violence	Behaviour characterized by the use of force to damage, injure, or kill someone or something.	Crime and violence
Violent	Of or involving violence.	Crime and violence
Violent extremism	An act of violence (often criminal) associated with extremism and extremist views.	Ideological and response
		1

Table A.1: words and phrases with accompanying definitions.

Data manipulation technique:

- 1) Tweets collected and sorted by ATR-Vis.
- 2) Collected tweets exported as a plain text file (.txt).
- 3) Analyzer program is run with the input being the file containing the tweets.
- 4) A word or phrase from the above is selected.
- 5) The program runs through each line or tweet within the text file and each time the given word or phrase is encountered it adds to the count of the total number of occurrences therein.
- 6) The final count is returned by the program.

Appendix B: Source Code (PhraseTracker.cpp)

Below is the entire source code for the Phrase Tracker program used in the thesis research. The code was written in the C++ programming language, compiled with the GNU C++ compiler, and run on a Lenovo Thinkpad P51 mobile workstation running Ubuntu 17.10.

```
#include <iostream>
#include <fstream>
#include <stdio.h>
#include <string.h>
#include <vector>
using namespace std;
int main()
       int counter;
       string filePath, phrase, current;
       vector<int> count;
       vector<string> terms;
       vector<double> percent;
       cout << "Specify file path: ";
       cin >> filePath;
       ifstream file;
       cout << "Note, to end the program enter exit.\n";
       while (true)
               file.open(filePath);
               counter = 0;
               cout << "Enter word/phrase to count occurrences of: ";</pre>
               getline (cin,phrase);
               if(strcasecmp(phrase.c str(), "exit") = 0)
                      break;
               while(getline(file, current))
                      if(current.find(phrase) != string::npos)
                             ++counter;
               }
               terms.push back(phrase);
               count.push back(counter);
               file.close();
       int num tweets = count[0]/2;
       double sum count;
```

```
percent.push\_back(0);\\ for(int i = 1; i < count.size(); ++i) \\ \{\\ percent.push\_back((double)count[i]/(double)num\_tweets*100);\\ sum\_count += count[i];\\ \}\\ ofstream output;\\ output.open("results.txt");\\ for(int i = 0; i < terms.size(); ++i) \\ \{\\ output << terms[i] << "," << count[i] << "," << percent[i] << "\n";\\ \}\\ output.close();\\ return 0;\\ \}
```