

**An investigation into Twitter as an echo chamber: A case study using
hashtags during CAA protests in India**

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Abstract

This thesis examines to what extent microblogging site Twitter functions as an echo chamber. While the research in this area is increasing, academia is divided in its view about echo chambers. Some academics argue that echo chambers do not exist (Bruns, 2017; Garrett, 2009); others have found supporting evidence (Dubois & Blank, 2018; Garimella et al., 2018; Jamieson & Cappella, 2008; Krasodonski-Jones, 2017; Williams et al., 2015). By using concepts of the public sphere (Habermas, 1989) and the digital public sphere (Schäfer, 2015), this thesis first assesses whether echo chambers are carried over from the public sphere to the digital public sphere, specifically Twitter. Second, it analyses whether there is evidence of echo chamber formation on Twitter. The thesis uses the Citizenship Amendment Act (CAA) protests in India as a case study, and document analysis and hashtag content analysis as its methods. The data for the thesis is collected using third-party platforms Twitonomy and Hashtagify. While 400 hashtags related to the CAA protests were initially collected, the study critically analyses the 20 most frequently used hashtags. The thesis finds evidence that to an extent, Twitter functions as an echo chamber, supporting findings of some earlier academic studies.

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Attestation of Authorship

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.”

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1. INTRODUCTION

This thesis investigates to what extent microblogging site Twitter can be seen to be functioning as an echo chamber and whether there is further evidence of its echo chamber effect. Echo chambers are formed when users who participate in online discussions find their opinions constantly echoed back to them. Members of echo chambers often gather information that supports their existing knowledge (Heshmat, 2015). The thesis also assesses if echo chambers can be detected outside Twitter and whether these are transferred from outside Twitter to the platform itself. Many academics believe that social media is increasingly linked to political polarisation and the emergence of echo chambers (Borge-Holthoefer et al., 2015; Bulut & Yörük, 2017; Morales et al., 2015; Ray et al. 2017). Others are more doubtful about the existence of echo chambers (Bruns, 2017; Garrett, 2009). The thesis uses the Citizenship Amendment Act (CAA) protests in India as a case study. It explores the usage of hashtags by different groups to research whether the use of hashtags supports their existing world view. The microblogging site Twitter has become an increasingly powerful and popular communication tool for citizens and politicians alike. In 2019, Twitter had 125 million users of which 7.75 million were in India (Clement, 2020; Pragati, 2019). With Twitter's involvement in many political fields, some controversies have begun to emerge from this. As recently seen in the Capitol Hill riots in the United States, Twitter can be used for political propaganda and mobilisation of political groups, and it can aid in the polarisation of world views. In this context, researching echo chambers is important to further understand how social media may aid polarisation.

1.1. Research background

India is one of the fastest growing markets for Twitter (Hariharan, 2021). During the period from October to December 2020, Twitter's daily active usage in India increased by 74% year-on-year (Hariharan, 2021). The 2018 data from a Twiplomacy study shows that Indian Prime Minister Narendra Modi's personal Twitter account @NarendraModi had nearly 42 million followers, including 26 million following his institutional account (@PMOIndia) (Geneva, 2018). This means that he is the third-most followed world leader on Twitter. India's Information Technology

Minister Ravi Shankar Prasad says that social media networks such as Twitter, Facebook, and YouTube play a significant role in the digitalisation of India (Krishnan, 2021). Twitter is not only a platform for citizens to express their opinions, but also the default social platform for political leaders and governments to make comments and statements (Krishnan, 2021). Prime Minister Modi uses Twitter extensively as a political communication tool, and to control views opposite to his. In 2021, Modi and the Indian government suspended more than 100 accounts on Twitter to curb the online activities of users participating in the Citizenship Amendment Act protest (Krishnan, 2021). The groups protesting against the CAA have been using Twitter as their communication tool without the censorship of the government, and these groups are investigated in this thesis.

The Citizenship Amendment Act was passed in 2019 by the ruling Bharatiya Janata Party (BJP) of India. The Act was an amendment to the Citizenship Act of 1955 which grants citizenship based on religion to the minorities of the neighbouring countries of Afghanistan, Pakistan, and Bangladesh who had entered India on or before 2014 (Chaudhari, 2019; Indo Asian News Service, 2019).

According to the Act, members of “religious minorities” will be protected if they have entered India before December 31, 2014. However, the CAA does not include persecuted Muslim groups. If these groups come to India due to similar religious persecution, they will still be regarded as illegal immigrants (Indo Asian News Service, 2019). In this context, it is not surprising that the protesters claim that the CAA is discriminatory. The opposition against the amended Act arose on two different grounds. The countrywide protests against Act it arose because the Act was seen as unsecular and discriminatory. On the other hand, residents of Assam and other North-Eastern regions opposed the Act because they feared that non-local residents (such as Bangladeshi) would disrupt the balance of local ethnic groups and this would lead to sectarian conflicts. Assam has witnessed substantial immigration from the neighbouring country of Bangladesh (Chaudhari, 2019). Assam has reached an agreement with the federal government to only accept illegal immigrants who had entered the country before 1971, but the CAA requires Assam to accept illegal immigrants who had entered India before 2014 (Chaudhari, 2019).

As the amended Act excluded the Muslim community, those opposing the Act were protesting against it because it was seen unsecular and unequal and standing against the principles of the Constitution of India (Chaudhari, 2019; The Hindu, 2019). The CAA protests broke out on December 4, 2019, across India (HT Correspondent, 2019). They involved people from diverse religious backgrounds, vocations, castes and classes who were galvanised against the passage of the Citizenship Amendment Act (CAA) (Hasan, 2020). In general, India is politically polarised over issues such as inequality, caste, immigration and religious freedom, and more recently, polarised issues have been associated with the partisan identities that have developed with the coming of the right-wing government (Gudavarthy & Vijay, 2020).

The reason I am studying Twitter and the use of hashtags during the protests is because the CAA protest also took over the Internet with #IndiaDoesNotSupportCAA becoming one of the top trending threads worldwide on Twitter during the time of the protests (Indo Asian News Service, 2019). The CAA protests became prominent on Twitter after #IndiaSupportCAA started to trend due to the government and the supporters of the Act.

Some debates about the implementation of the CAA have been carried from the real world to the Internet. Some observers claim that political participation has led to political polarisation in social media, and whether this is the case will be further examined in this thesis (Neyazi, 2020). Does Twitter offer an equal and free space for all users to see and accept different views? Or, can we find evidence of echo chambers that block other voices?

1.2. Approach and method

This thesis uses the concepts of the public sphere and the digital public sphere to examine the echo chamber effects on Twitter. The emergence of the public sphere occurred in the 18th century and the later development of the digital public sphere can be seen as an extension of the public sphere concept (Habermas et al., 1974). Echo chambers have become a hotly debated topic following the emergence of the Internet, and the concept is challenging the Habermas's theory of the public sphere. Thus, it is important to define the key concepts of the public sphere and the digital public

sphere first. This allows us to then to compare the differences between the public sphere, the digital public sphere, and echo chambers.

For Habermas (Habermas et al., 1974), the public sphere is a space where citizens can come together to freely discuss ideas and opinions and to participate in political processes. The digital public sphere assumes that people can freely and openly express their views and opinions on the Internet and social media platforms (Schäfer, 2015). Social media inherits some of the characteristics of traditional media – newspapers, television, radio - as they produce a large amount of information, have wide coverage, and are timely and fast. In contrast to traditional media, social media has better interactivity. Microblogging site Twitter, in principle, allows everyone to participate in discussion, communicate two ways, and form strong connectivity with other participants. With its powerful functions, social media platforms give individuals an ability to participate and to express their views publicly. It can be argued that social media platforms aid people's participation in public debates and political discourse, but a question arises if Twitter is a digital public sphere, or whether it offers a platform for echo chambers and polarisation. This will be examined in this thesis.

To investigate Twitter as an echo chamber, the thesis uses a mixed-method approach. First, document analysis is used to examine whether the views of different groups are transferred from the public sphere to the digital public sphere. Document analysis is a social research method; it is a form of qualitative research in which research is conducted on a certain aspect of the collected literature according to a particular research purpose (Bowen, 2009). In this thesis, two public speeches from Prime Minister of India Narendra Modi (representing the group supporting the CAA) and one article from *The Milli Gazette* (representing the group opposing the CAA) were selected for analysis. The purpose of document analysis is to identify the key arguments made by the pro-CAA group and anti-CAA group in the public sphere, outside of Twitter. Furthermore, this approach enables me to research whether the arguments expressed in speeches and media articles were carried to the Twittersphere. Second, a content analysis of Twitter hashtags is conducted to find out about the meanings of tweets posted by different groups. Content analysis is used to make “qualitative inferences by analyzing the meaning and semantic relationship of words and concepts” (Luo, 2021). The study analyses quantitative data about CAA hashtags used by different groups, and it considers CAA supporter group accounts, protester group accounts, and media groups.

1.3. Aim and rationale

I am studying echo chambers, a relatively contemporary phenomenon, because academia is still divided in its opinion about them, and I am hoping to add to the knowledge with my research. There is a body of research, but academics hold different views as to whether social media can be seen as an echo chamber (Iyengar & Hahn, 2009; Sunstein, 2002). There are debates focused on whether echo chambers exist or not (Dubois & Blank, 2018; Garimella et al., 2018; Jamieson & Cappella, 2008; Krasodomski-Jones, 2017; Williams et al., 2015). Some researchers have commented that echo chambers are dangerous, and that echo chamber “does tangible damage to our understanding” of world (Grimes, 2018, p.4). Garrett (2009) says that there is not much evidence of echo chambers.

I selected the Indian CAA protests as my case study because the protests and related debates became so prominent on Twitter. As mentioned, the Indian government uses Twitter as a communication tool to outline its reasons about importance of the CAA. Protesters also use Twitter to express their resentment about the implementation of the CAA. More recently, the Indian government seem to suppress protesters’ voices, with the suppression of more than 100 active accounts that are against the CAA (Krishnan, 2021). Thus, freedom of speech on Twitter has been challenged. Prior to suppression, and after the emergence of CAA debates on Twitter, #IndiaDoesNotSupportCAA became one of the top trending hashtags. People started using hashtags in their tweets to demonstrate a clear position about the CAA. As such, I want to evaluate whether the echo chamber effect exists by analysing the hashtag usage of CAA supporters and CAA opponents.

The aim of this study is to examine to what extent Twitter functions as an echo chamber and whether there is evidence to support the view that it does. The main research questions are:

- RQ1. What are the main proponents’ arguments about the CAA Bill?
- RQ2. How are the main arguments of proponents evident in the Twittersphere?
- RQ3. How are hashtags used by groups supporting the CAA?
- RQ4. How are hashtags used by groups opposing the CAA?
- RQ5. Does the use of hashtags support the view of Twitter as an echo chamber?

1.4. The case study

To examine whether Twitter functions as an echo chamber, my thesis uses the Citizenship Amendment Act (CAA) protests in India as a case study. The study investigates the use of hashtags on Twitter during these protests. I chose the CAA protest as my case study because the debate about the CAA has been prominent on the traditional media and especially on Twitter. The CAA protests offer a good focus point through which to examine whether the groups opposing and supporting the Act used Twitter hashtags to support their specific views and whether there is evidence of echo chambers. As mentioned in Chapter 1, research of hashtags has thus far been US-centric. However, it is beneficial to study beyond one country only as different countries have different cultures and political systems. The debate about the CAA in India was intense both online and offline, and therefore offers good data to analyse. On Twitter, supporting CAA groups and opposing CAA groups stated their standpoints. More importantly, hashtags relevant to the CAA have been used frequently by protestors and supporters to express their opinions on Twitter. Therefore, the use of hashtags can be used to study whether Twitter has an echo chamber effect.

The Citizenship Amendment Act was introduced by Amit Shah, the Home Minister of India on December 9, 2019 and was passed on December 10, 2019. The protests that involved people from diverse religious backgrounds, vocations, castes and classes galvanised against the passage of the CAA and displayed anti-government opposition (Hasan, 2020). The CAA passed in 2019 by the ruling Bharatiya Janata Party (BJP) was an amendment to the Citizenship Act of 1955, which grants citizenship based on religion to minorities from the neighboring countries of Afghanistan, Pakistan, and Bangladesh who had entered India on or before 2014 (Chaudhari, 2019; Indo Asian News Service, 2019). The amended Act excludes the Muslim community and the opposition and protests against the Bill had been primarily due to the unsecular and unequal character of the Act, which stood against the non-discriminatory principles of the Constitution of India (Chaudhari, 2019; Indo Asian News Service, 2019). In addition, the Act would not provide citizenship to the persecuted minorities of Myanmar and Sri Lanka, the Rohingya Muslims and the Tamils, respectively, who had been staying in the country as refugees (Indo Asian News Service, 2019).

The CAA protests took over the Internet with #IndiaDoesNotSupportCAA becoming one of the top-trending threads worldwide on Twitter during the time of the protests (Indo Asian News

Service, 2019). The movement became big after #IndiaSupportCAA trended due to the government and the supporters of the Act. There was a clear polarisation among the citizens between the supporters and the protestors on the amendment. Muslim groups opposed the CAA Bill because the CAA paved the way for illegal immigrants from six religious minorities from Afghanistan, Bangladesh, and Pakistan. However, the law does not include Muslims, who are at the core of the CAA protests. The Act triggered fears of marginalization of the Muslim community. Modi claimed that because Muslim groups are not persecuted in Muslim countries, they do not need to be included in the CAA (Khan, 2020). This explanation is obviously untenable. Since 2001, more than 2693 Shia Muslims have been killed in Pakistan, and 262 Ahmadi Muslims have been killed since 1984 (South Asia Terrorism Portal, 2020). Facts have proved that Muslim groups are still being targeted and being persecuted. The implementation of CAA will prevent more Muslims from Pakistan from coming to India and seeking protection. The number of Muslim immigrants will decrease. According to Modi's purpose of promoting The National Register of Citizens (NRC) and CAA, Muslims may face a situation where they will be deprived of their citizenship rights without valid documents. UNICEF's 2012 data report stated that approximately 40% of urban births and 65% of rural births were not registered in India (Shankar, 2019). Because many poor people actually do not have valid documents to prove their birth, the act makes it impossible for many poor Muslims to prove their nationality. CAA clearly expressed its discrimination against Muslim immigrants, and the Muslim community will always be on the margins in India.

Another reason for those against the CAA is that in some Indian states with large Muslim populations adjacent to Afghanistan, Bangladesh and Pakistan, the locals worry that the new law will become an excuse for many Hindus to immigrate and eventually become the majority of the local population. Assam is one of the states that has witnessed a large amount of Hindu immigration from the neighboring country of Bangladesh (Chaudhari, 2019). It has been noted that the trending and usage of social media to oppose and support the Act had been enormous throughout the country and the government suspended the Internet in the regions where the protests escalated to curb both the protests and the use of social media to share information and ideas (Chaudhari, 2019). Thus, the large-scale protests that erupted and polarised the country have been active in the social media space.

With the rise of protests against the CAA, the pro-CAA groups also started their campaign of support on Twitter using some of the hashtags. The online campaign was parallel to the physical protests and marches opposing the Bill throughout the country. The pro-CAA groups also organised some physical rallies and marches in support that paralleled the online campaign.

1.5. Thesis structure

The thesis is structured in seven chapters, and each chapter has subsections. The main chapters are described here.

Chapter 1 offers the introduction for the thesis. It introduces the research topic, background, approach, method, aim and rationale of the study.

Chapter 2 introduces the theoretical concepts and approaches of the study. The chapter examines key concepts of the public sphere, the digital public sphere, and echo chambers.

Chapter 3 provides the literature review, which includes academic arguments related to echo chambers. Political participation and polarisation are discussed as outcomes of echo chambers. Furthermore, the chapter discusses theoretical approaches to echo chamber effects.

Chapter 4 is the methodology section. It explains the mixed-method approach used in the study, including document analysis and hashtag content analysis. The chapter outlines the case study, data collection, tools, the sample size, and the limitations.

Chapter 5 offers the key findings of the study.

Chapter 6 analyses the findings and debates the significance of the key findings.

Chapter 7 offers concluding thoughts on the thesis.

2. PUBLIC SPHERES AND ECHO CHAMBERS

This chapter explores the key theories and concepts relevant to this thesis. It provides discussions about the key concepts of the public sphere, the digital public sphere, and echo chambers.

To investigate what kind of platform Twitter is, the concept of the public sphere is a useful starting point. The public sphere was first proposed by the German thinker Hannah Arendt in the 1950s but was carried out by the German philosopher Jürgen Habermas in the 1960s through the paper “Structural Transformation of the Public Sphere”. Habermas et al. (1974) offer a concise definition of the public sphere: “a realm of our social life in which something approaching public opinion can be formed. Access is guaranteed to all citizens (p.49).” In principle, the public sphere is open to all citizens to freely express their views (Habermas et al., 1974). Part of the public sphere is made up of various dialogues in which people come together as private individuals and form the public. Citizens assume that they can freely participate in public affairs in this space without interference. When the Internet emerged in 1983, we moved into a digital public sphere (Leiner et al., 2020). In this digital sphere, people talk and communicate online, and social media platforms such as Twitter aim to provide a democratic space that allows people all over the world to participate in debates. Twitter seems to be in line with Habermas’ description of the public sphere as it is free for all to comment and to participate in political debate. However, based on the viewpoints that individuals are willing to consider, the formation of echo chambers may emerge (Wang et al., 2020). As discussed, this thesis uses debates on the Citizenship Amendment Act (CAA) on Twitter as an example to study echo chambers. On Twitter, some people support the implementation of the CAA, and others oppose it. As this thesis debates, echo chambers can be formed when users strengthen their position by agreeing with others who have similar views and ideas. Over time, people tend to stay in their own bubble and block voices that disagree with them. This phenomenon does not seem to conform to the core idea of the public sphere.

In a digital world, Twitter provides us a chance to communicate directly with people on a higher level, such as the government and politicians, and this can be a positive outcome of the Internet. On the other hand, political polarisation and echo chambers, as a negative outcome of the Internet, demonstrate that the democratic ideals of the public sphere and the digital public sphere are not so successful on Twitter.

2.1 The public sphere

To understand how public or individual opinions are formed via traditional media, it is important to understand the concept of the public sphere. As discussed above, the public sphere is a space that allows for critical public debate, which is accessible to all citizens and allows them to participate in it (Habermas et al., 1974). Habermas (Habermas et al., 1974) believes that media offer citizens a platform to express and discuss their opinions freely. For Habermas, the public can express their opinions via newspapers, periodicals, radio and television which are part of the traditional media. However, we can argue that not all parties have had an equal say in the public sphere, for example, certain advocacy groups have manipulated the public sphere for their own benefit (Jamieson & Cappella, 2008). Habermas' concept of the public sphere was developed before the Internet arrived, so he did not consider what kind of public spheres would emerge in the digital world. The concept of the public sphere will be analysed by way of document analysis to help me to investigate research questions RQ1 and RQ2.

As said, the public sphere is open to all citizens (Habermas et al., 1974). A part of the public sphere is composed of various dialogues, in which people come together as private individuals and form the public (Habermas et al., 1974). In this context, participants neither act as businesses or professionals to deal with private acts, nor as legal groups to accept the laws and regulations of the state bureaucracy (Habermas, 1989). When they deal with issues of general interest without compulsion, citizens act as a group. Therefore, this kind of action has the guarantee that they can freely assemble and combine and can freely express and expand their opinions. A characteristic of the public sphere is that citizens can freely express their speech in public space and should not be subject to illegal interference by the state or government (Habermas, 1989). But the public sphere is not a case for India.

The bourgeois public sphere is also an important concept in Habermas' (1989) public sphere theory. The bourgeois public sphere concept has existed since the 18th century in England. In the 18th century, the public expressed their views on the arts, social issues, and politics in periodicals or magazines. The public formed an open communication network while reading and discussing daily newspapers, and weekly or monthly magazines. This form of exchange of information often

happened in institutions such as academic associations, reading groups, and religious societies. At that time, coffee shops and clubs focused on art and literary criticism, gradually reaching into economic or political issues such as criticism of events. In every gathering and conversation, a part of the public sphere was generated. This kind of discussion in the public places was not subject to the supervision of any government agency (Habermas, 1989). In other words, gatherings in places such as coffee shops and salons were public spaces independent of political construction. Although the participants at the clubs, salons, and cafés were defined by Habermas as the public, the subjects mentioned in the framework seemed to be members of the bourgeoisie rather than other civilians. Therefore, the concept of the public sphere embodies the political ideal of the bourgeoisie, to build a democratic society, which has equal participation and free discussion (Habermas, 1989). In a sense, the public sphere is a matter for professionals such as politicians and organisational officials. But, on the other hand, the public sphere also involves everyone. Through the public sphere, people can share the same information as politicians. Information is equal in the public sphere. It connects the ideal to my thesis, because India society seems work against the ideal of the public sphere. The theory holds that only by realising such conditions can the public sphere have the possibility of democratic consciousness. This means that the public sphere, which is considered to be a society under Habermas' theory that allows for critical and analytical participation of citizens, contains in itself the logic of democracy true to equal societal participation and discursive equality (Dahlberg, 2013).

The structural transformation of the public sphere, of which Habermas spoke, began at the end of the 19th century. Since the end of the 19th century, capitalism entered a monopoly stage, and society has entered advanced capitalism, which has led to the uneven development of social wealth and triggered tremendous changes in the public sphere (Habermas, 1989). The state and advocacy groups began to intervene in the public sphere of society, and this relationship gradually undermined the foundation of the bourgeois public sphere – the separation of state and the public (Habermas, 1989). The public sphere, while open to everyone for the purposes of debate, is in fact influenced by advocacy groups (Habermas, 1989). It can therefore be argued that the free opinion formation in the traditional media is compromised. The most prominent manifestation is that advocacy groups have initiated unequal control of the public sphere. Originally, private news writing was replaced by mass media with a propagandistic nature. For example, Jamieson and Cappella (2008) found that American conservatives used Rush Limbaugh's radio talk show, Fox

News, and *The Wall Street Journal* to promote Reagan's conservatism. Habermas (1989) points out that popular newspapers have gradually replaced the critically conscious literary family magazines, and they have often catered to collective entertainment and leisure needs at the expense of rational content. Advocacy groups need the media to serve their own interests. Therefore, under the control of advocacy groups, the media has gradually lost its original public service function (Habermas, 1989). After entering monopoly capitalism, newspapers and other media have become increasingly manipulated by a country's bourgeoisie. With the deepening of a country's political discourse power in the public sphere, newspaper and periodical functions combine politics with business, and news pages and advertising pages become more inseparable. Newspapers and periodicals have become the portals for privileged private interests to invade the public sphere (Habermas, 1989). Political interest rationality has replaced citizen discourse, civil rights have been excluded, and public opinion has become the result of media manipulation. The media has become a tool of political power, a medium of propaganda, rather than a medium through which the public obtains political information (Habermas, 1992). Habermas criticises how the media is controlled by advocacy groups and therefore cannot maintain its own characteristics of publicity and freedom. As a result, the development of the public sphere of society will be inhibited or even destroyed, and the rights of citizens cannot be effectively protected (Habermas, 1989). The phenomenon violates the basic characteristics of the public sphere.

2.2 Digital public sphere

To understand how Twitter may function as a different type of public sphere, the concept of the digital public sphere needs to be looked at. As my thesis examines communication on Twitter, it is important to understand this concept. While Habermas believes that public opinion is formed through traditional media, many others believe that modern, digital media offers a different space for opinion formation.

The digital public sphere has been considered as an extension of the traditional public sphere, which is seen as fundamental for the operation of modern democracies (Schäfer, 2015). It has been described as a sphere of communication that is supported by digital platforms where there is freedom of participation and the discussion proceedings are visible to the public (Schäfer, 2015).

It can be argued that the evolution of Habermas' theory of the public sphere in the contemporary social and political landscape finds a transformed relevance in the digital world. It can be said that the digital public sphere is an extension of the traditional space of critical debate where citizens can engage in social issues. Just like the traditional notion of the public sphere, the digital public sphere also enables the facilitation and participation of citizens involved in debates on social and political issues. The digital public sphere allows the public to directly express their opinions on social media platforms instead of expressing them via traditional media such as newspapers and radio. The Internet has constructed a cross-border, cross-regional, cross-cultural, and globalized social communication space (McFadyen et al., 2004). The Internet creates colorful and vivid information visually and directly affects the audience's sensory organs in the form of multiple information carriers and the way of transmitting the information (Kirmayer et al., 2013).

In the digital public sphere, debate is easier for citizens compared to the public sphere (Schäfer, 2015). Compared with other media, the Internet provides a more ideal debate environment for participants in the digital public sphere (Schäfer, 2015). The characteristics of the Internet enable the anonymity of participants. Take as an example that the real names and profile photos of users can be invisible, except for politicians and celebrities who have been officially authenticated by social media platforms. Internet participants scattered all over the world can choose and decide which discussion group they want to join or leave. Therefore, in the digital public sphere, personal information such as skin color, race, nationality, age, or even gender is shielded. In this way, the digital public sphere provides participants with a more equal debate environment.

The digital public sphere is different from the traditional public sphere in the use of media, the composition of participants and the way in which consensus is reached (Schäfer, 2015). The role of the mass media is also to inform citizens so they can participate in critical discussions in the digital public sphere. The debates that took place in squares, salons, and cafés in the past were based on face-to-face interactions. The current discussions in the digital public sphere are mainly based on words. Compared with traditional public sphere debates, the digital public sphere debates are based on words and as such, the latter sphere has particular characteristics, because the digital public sphere is not restricted by any venue or time. In the digital public sphere, people can connect directly with each other, media and politicians, therefore expanding the notion of the public sphere to a digital world (Dahlgren, 2005). Compared with mass media, the Internet provides a significant

improvement in the structure of the public sphere, because it allows users to see themselves as contributors to public discussions, or as potential actors on the political stage (Rauchfleisch & Kovic, 2016). The Internet makes communication more convenient; it is easier for people to participate in political or other professional debates. The most relevant example is the Twitter diplomacy. Leaders of the world have noticed the rapid development of Twitter and have begun to use it to interact with foreign publics and their citizens (Duncombe, 2017). In India, politicians are using more social media platforms such as Twitter to consolidate their power and their messages. For example, Prime Minister Narendra Modi uses Twitter for election campaign activities. After 2014, similarly to the leaders of other countries and regions, Modi continued to use Twitter as an important political communication tool. In 2019, Modi and his Bharatiya Janata Party posted promotional information about the Citizenship Amendment Bill on his personal homepage and the Bharatiya Janata Party homepage. On December 10, 2019, the Bill was officially passed and became the Citizenship Amendment Act 2019. Once the Bill was introduced, fierce protests broke out in north-eastern India. Subsequently, Prime Minister Modi stated on Twitter many times that the Bill does not target anyone or any group but provides protection for those who are persecuted by religion. Indian citizens started to make comments on the passing of the CAA on Twitter. Through this, we can see that people actively participate in political topics and demonstrate their views on political events on the Internet. With the involvement of political authority in the digital public sphere, power is increasingly involved in the process of social communication. Therefore, the relationship between the state and the people in the digital public sphere has been shortened. Compared with the public sphere, the digital public sphere has a higher degree of political discussion (Dahlgren, 2005).

Some researchers (Grunwald et al., 2005; Weare, 2002) believe that although the Internet seems to have made politics more democratic, it has not achieved equal output and reception of information. In reality, the digital public sphere of freedom and equality may not exist. First, the concept of the digital public sphere assumes that all people can enter the sphere. However, more than four billion people, mostly in developing countries, still do not have access to the Internet (Luxton, 2016). Internet inequality is not only reflected in countries and regions with different levels of social and economic development, but also in different social groups (James, 2007). In his research, James (2007) found that groups with a higher socioeconomic status are more likely to have access to the Internet and spend more time online. People with low levels of education,

low-income groups, and people living in rural areas are more likely to be excluded from Internet availability (James, 2007). Secondly, all kinds of true and false information have been caused by the information explosion. In a sense, everyone can become a global information maker. The generation of a large amount of false information reduces the effectiveness of people's use of information. Information producers create different descriptions of the same thing for different purposes, making it impossible for the information receiver to distinguish the essence and truth of the matter. In the end, the digital public sphere promotes a range of messages conveyed by political leaders, but it has done little to expand the voices of ordinary citizens (Hindman, 2009). To a large extent, the digital public sphere is a commercial domain. In a sense, private companies control it. Through algorithms and manual intervention, many platforms and politicians actually curate public debates and interfere with information (Neudert et al., 2019). These actions are undetectable by the public. This violates Habermas' principles of rationality, openness, and equality in the theory of the public sphere. It can be said that the digital public sphere has been subject to controversy and criticism because it cannot resolve issues such as inequality, access, and power. Therefore, it is hard to say whether Twitter can truly be seen as a digital public sphere.

2.3 Echo chambers

As discussed above, it can be said that while the Internet has expanded the public sphere and the new digital public sphere has emerged, the digital public sphere may not be as open and inclusive as many have assumed. Many academics argue that Twitter functions as an echo chamber. The echo chamber, in general, has been defined as a situation where there is the participation of a group of people preferably connecting with each other and excluding outsiders (Bruns, 2017). There has been a more detailed definition and description of the echo chamber by Jamieson and Cappella who suggest that the "echo chamber is a bounded and enclosed space in the media where there is the capacity to amplify the delivered messages internally and also separate the messages from contradictions" (2008, p. 76).

Echo chambers are a negative outcome of the digital public sphere. The concept of echo chambers refers to when there is a formation of an enclosed space that comprises like-minded people and the collective views and beliefs are repeated and transmitted within the space forming an echo

(Jamieson & Cappella, 2008). The information shell formed within this space is heavily relied upon by the group members and it is the Internet that “has given an impetus to the growth of such spaces in the digital public sphere” (Sunstein, 2009, p. 120). Discrimination toward other related opinions in social media may increase personal beliefs and misunderstand the importance of people’s opinions (Nguyen, 2018, Wallsten, 2005). With the increase in the flow of information, there has been an increase in choice for users, which has led to choosing like-minded information from the vast resources available (Mutz & Young, 2011). The discussion of echo chambers has emerged with the pessimistic view of digital communication wherein there are several problems that have been pointed out concerning the degree of participation in digital public spheres such as digital divides among people and social divisions. The division within digital participation is anticipated when there is fragmentation of communities into groups of like-minded people, which in turn leads to the formation of the echo chamber effect (Schäfer, 2015). The emergence of the effect of the echo chamber due to the participation of users and the creation of the division within them is dependent on shared information and collective views.

Due to the echo chamber effect, people tend to communicate with people who have the same opinions and thus form groups. Take an example, you publish a tweet to praise a film, and you see comments on your tweets saying the film are rubbish, then you put the commentor on a blacklist and ignore the comment. You don’t want to hear someone challenging your opinion but instead like to hear those who have similar views as you. This phenomenon can be considered as an echo chamber. The members of an echo group share common beliefs, emotions, needs, and interests, have the same cognition and values of a certain thing. People are immersed in echoes that conform to their own inner opinions, often turning a blind eye to other voices, and even thinking that voices that disagree with them are nonsense. Groups are closely connected and cannot be easily broken up. Therefore, once you enter your own echo chamber, opinions and information tend to be more extreme. In this imperceptible tendency, an individual’s thinking will be slowly eliminated. Therefore, the opinions of the group will slowly influence the individual’s opinions (Bruns, 2017). When individuals entering the group perform collective actions, the collective subconsciousness will make people’s rationality fade (Bruns, 2017). Social norms and a sense of responsibility will be weakened, and thoughts and emotions will be easily implied (Schäfer, 2015). When a social phenomenon or problem arises, people trapped in the echo chamber will only look at what they

like. No matter what news is spread in the small group, they will follow it unconsciously. Many online rumors have spread widely because of the shortcomings of the echo chamber effect.

Discussions on social issues and politics are conducted on the Internet platform as a form of the public sphere. The digital public sphere fulfills its duties of fairness and openness. Such an outcome can be facilitated through the collision of different opinions, and mutual criticism to find the truth and rationality. Echo chambers offer contradictory views about the digital public sphere. The echo chamber effect makes it difficult for people to receive different ideas, and most opinions expressed in the public domain have no substantive content. Instead, there is just simple emotional venting. This kind of controversy will gradually evolve into quarrels and attacks, which is meaningless emotional catharsis. The digital public sphere is occupied by the people in the echo chamber, which makes social media become a fake digital public sphere. The concept of the digital public sphere and echo chamber offers a framework to analyse the use of documents and hashtags during the CAA protests.

3. LITERATURE REVIEW OF ECHO CHAMBERS

As mentioned, earlier academic studies have investigated echo chambers and polarisation of views on the Internet and on social media. This chapter offers a literature review of the relevant previous studies to further understanding of the concept of echo chambers, echo chamber effects, and political polarisation. As stated earlier, the concept of the echo chamber is one of the key concepts used in this study. While the current literature about echo chambers offers informative and diverse views about them, there is need for more clarity. First, researchers often study political communication practices of individuals rather than groups on single medium (Dubois & Blank, 2018). Second, the studies about echo chambers have been limited to specific geographical locations or topics, and mostly concern the U.S. (Jamieson & Cappella, 2008; Nguyen, 2018). This leaves scope for further work on the topic, social media platforms or any platform in general and geographical locations to continue the research on and reach new conclusions.

3.1. Media landscape in India and emerging echo chambers

The Indian media began to appear in the late 18th century. Printed media began in 1780, and radio broadcasting began in 1927 (Roy, 2013). In the early 2000s, online and digital publishing emerged in India (Roy, 2013). Press Trust of India is the largest news agency in the Indian newspaper industry. Press Trust of India was founded in 1947 and is headquartered in Mumbai (Britannica, 2017). Press Trust of India now occupies more than 90% of the Indian communications market (Britannica, 2017). United News of India, established in 1959, has branches in more than 100 cities across the country. Subscribers to the agency include newspapers published in 14 languages (UNI, 2021). Indo-Asian News Service was founded in 1986. The agency is currently the first multilingual news agency in India, including English, Hindi, Gujarati, and Arabic (IANS, 2021). Hindustan Samachar was established in December 1949. The agency is the third largest news agency in India. There are branches in 20 state capitals across the country. Mainly send messages in Hindi, Marathi, Gujarati, and other local languages and Nepali (Kotiyal, 2018). India's largest radio station is All India Radio, which is India's official domestic and foreign broadcaster, under

the Ministry of Information and Broadcasting. There are radio stations in 124 places across the country, and 96% of the population and 85% of the country can listen to its radio (All India Radio, 2021). Doordarshan, established in 1959, is the largest television network (PBNS, 2021). In 1976, it became a separate organization directly under the Ministry of Information and Broadcasting. Most of the printed newspapers are owned by private individuals and consortia. The Indian government does not have any official newspapers. However, India is the world's largest newspaper consumer market, accounting for 1/5 of the world's newspaper circulation, with large volumes and low prices (Wearebn, 2020). India has a large newspaper recycling system. Subscribers collect old newspapers and sell them back to printers. Recycling system decreased the prices of newspapers. The source of revenue for the print media is advertising, but due to the impact of the Covid-19, the overall economic slowdown has led to wage cuts and layoffs across the newspaper industry (Krishnan, 2021).

In this era when the Internet carries massive amounts of information, consumption is shifting to mobile devices. Since the Modi government took office, it has vigorously promoted the construction of digital India, and India's digital infrastructure is growing day by day (Renminwang, 2018). In 2017, India became the world's second-largest smartphone market. In 2020, the penetration rate of high-speed broadband reached 53% (Renminwang, 2018). India has become one of the strongest mobile-focused markets, with 73% of people accessing news via smartphones (Krishnan, 2021). There are more than 600 million active Internet users in India, and WhatsApp, YouTube, and Facebook are widely used for news access (Krishnan, 2021).

The influence of the news media on the capitalization of Indian society can be traced back to around 1977 (Roy, 2013). At that time, news sources mainly came from paper media, and the differences between Bharatiya Janata Party and Indian National Congress were not intuitive. Indian citizens have limit resource to learn the information of different parties. For politicians, the print media greatly limits the influence of the media on voting. Around 2000, the emergence of digital media allowed voters to learn more about election-related information (Roy, 2013). The explosion of the news media has indeed increased the enthusiasm and participation of voters (Roy, 2013). However, the problem also appeared. The news media may have misleading or offensive information, which has led to problems of misinformation, hates speech or echo chamber.

Modi uses India's media elite to seek benefits for himself and to consolidate his political position. Baru (2021) explains that Delhi's media can be roughly divided into four categories, professionals, pro-government, anti-government and the corrupt. The corrupt refers to those media publish "paid news", speak fake stories and have completely lost their credibility, for example, *Eenadu* (Thakurta & Reddy, 2010) and *Times of India* (Dhillon, 2013). After Modi took office as Prime Minister, he avoided communication with any media that opposed the government. He likes to communicate with pro-government media to ensure that these media produce adequate media coverage for him (Baru, 2021). Nair and Mahr (2014) state that carefully controlled communication has been a defining characteristic of Modi's government. Most pro-government media reports are mainly in Hindi, and only a few English media have close relationship with Modi, such as Republic TV, Times Now, and India TV (Nair & Mahr, 2014). So, in the Hindi-language media, Modi has received overwhelming support (Baru, 2021). In contrast, in the English language media, many are his critics. Because Modi almost only communicates with the pro-government media and weakens the power of the media that opposes the government, his actions intensify the echo chamber effect in Indian society. On Facebook and Twitter, Modi mainly communicates with pro-government groups. Moreover, most traditional media has been transformed into digital media, posting the same news reports on social media (Ram, 2021). Thus, most news that supports Modi will be reported again on social media.

3.2. Defining the echo chamber

There is a diverse body of studies on echo chambers; such studies have ranged from politics to communication networks. Bruns (2017) describes how an echo chamber functions: with more exclusion of outsiders and the addition of participants into the group, the network becomes fully formed, and there is the very limited introduction of views from outside the group, with only the circulation of information and views of the participants within the group becoming likely (p.3). There has been more detailed definition and description of the echo chamber by Jamieson and Cappella (2008) who suggest that the echo chamber is a bounded and enclosed space in the media where there is the capacity to amplify the delivered messages internally (p.76). In a relatively closed environment, some views are repeated continuously, and repeated in exaggerated or other

distorted forms, so that most people in such an environment think that these distorted views are all the truth (Jamieson & Cappella, 2008). In this case, information or ideas are strengthened in a closed circle. It has been argued that the members of an echo chamber have collective beliefs, and this includes the explanations for the wariness of others outside the echo chambers (Jamieson & Cappella, 2008). Sunstein (2009) argues along a similar line that echo chambers are a figurative way to describe the situation wherein group members prefer information cocoons to rely on each other for validation of new information received and interactions within the community. Nguyen's (2018) study is an augmentation of analysis given in the work of Jamieson and Capella, where it is stated that the echo chamber is an epistemic construction in society where there is discrediting of other related opinions (p.146). When we have our own cognition of something, when a conflicting theory or phenomenon may be placed in front of us from the outside world, we will modify this new phenomenon according to the original cognition in our brain, so that this new phenomenon adapts to our inherent cognition and avoids large deviations in our own thinking and cognition. For example, when we are arguing with others, both parties try to persuade each other. Often the result is that neither party is persuaded, and everyone believes in their own opinions more firmly. This is the process of strengthening a cognition. Nguyen also argues that the mechanism of an echo chamber resembles a certain "cult indoctrination" apparatus (2018, p.142). When people are members of an echo chamber, different voices are blocked. They will not accept different opinions. The members of echo chambers rely on the information from the source that is approved inside the group.

Dubois & Blank (2018) states that the tendency of people to interact with like-minded others, having similar interests and sharing information, has been existent in sociopsychology and is common cross-culturally. People have the tendency to avoid disagreement and are inclined towards an agreement (Dubois & Blank, 2018). The evolution of the echo chamber has been supported by the Internet and other technologies by allowing group members to make choices that strengthen the preferences that already exist. Dubois and Blank (2018) observe that there has always been the existence of this mechanism of grouping or clustering, which has been recently termed as the echo chamber. However, it must be noted that the idea of the shunning of outside views and information in the echo chamber mechanism can be contested. The clustering of like-minded people is common for the description of all echo chambers.

Social media is used as a platform by consumers/users to voice their opinion. Polarisation and fragmentation are significant aspects related to audiences in media studies and communication (Webster, 2005). These facets are relevant to the discourse on the preferences of individuals (Webster, 2005). There are a wide range of choices for individuals in terms of their selection in the media environment. This high degree of choices leads to fragmentation of individuals; the preferences that are selected in the media forms can produce polarisation (Webster, 2005). This polarisation can be traced in social media analysis. For example, Garimella et al. (2018) state that echo chambers, particularly those in social media, refer to the situation wherein the consumption of content by the users expresses similar views held or expressed by these users. A study by Garimella et al. (2018) found that there is an emphasis on the identification of echo chamber components related to political dialogue on social networks. The article offers an analysis of mechanisms involved in the space of social media for the spreading of opinions and interactions that occur between the components with the use of the data that is both political and non-political (Garimella et al., 2018).

Moreover, the difference in echo chambers and filter bubbles must be understood for a comprehensive understanding of echo chambers. Some studies examine the creation of filter bubbles due to the personalisation of content by social networks and search engines (Bruns, 2019; Flaxman, Goel, & Rao, 2016; Pariser, 2011; Zimmer, Scheibe, & Stock, 2019). For example, if Google asks a user to fill in their personal information, the system will record a user's basic information, such as age, gender, and preferences. The personal information is the resource for the formation of filter bubbles. Secondly, due to the usual social behaviors of users on social media, such as pressing likes, leaving messages, following, collecting, forwarding, etc., big data algorithms use social behaviors to record the topics that audiences pay attention to (Neudert et al., 2019). Based on your information, background, and behavior in the online world, social media platforms can construct your unique information world. In emerging Internet applications, personalisation has become the core technology strategy of commercial websites. This means that a new generation of Internet tools will create unique global information for each user, infer user preferences, and provide corresponding information services, such as advertising, news, social networking, and so on (Isinkaye et al., 2015). The two concepts (echo chambers and filter bubbles) have been used simultaneously in most studies, but filter bubbles have been explained as a concept that is persistent. The polarisation of society and ideology is possible through search engine

aggregators and social media (Pariser, 2011). It has been argued that due to filter bubbles, there is unbalanced and unhealthy information that is reaching the public; such information is based on the interests of the individuals targeted, which reinforces their existing views (Bruns, 2019). Obtaining information to achieve personal customization brings convenience and efficiency. Because big data algorithms will send users the content that they are interested in, based on the users' records, over time, users will only see what they like. The content and information present a simplification, which will have a one-sided impact on the audience to a certain extent, and eventually lead to a narrow situation of information reception. If people overly rely on personalisation, it may prevent communication between people in society, may hinder innovative ways of thinking about the world and understanding themselves, and eventually, users may fall into the trap of the filter bubble.

The similarity between the echo chamber and the filter bubble is that both easily lead to the narrowing of information. Users only understand part of the information content and lack an understanding of the integrity of the information. The audience is prone to stubborn ideas. Under the influence of the filter bubble and the echo chamber, it is easy to blindly follow the trend, forming a kind of group polarisation, only paying attention to points of interest. The difference is that filter bubbles automatically judge the audience's love level and recommend the favorite content to the audience to achieve the goal of personal customization (Zimmer, Scheibe, & Stock, 2019). Echo chambers are self-recognition performances and choices. Echo chambers and filter bubbles are relatable but have a difference in their formation.

3.3. Critique of echo chambers

Some academics critique the idea of echo chamber effects in social media. Sunstein (2002, 2009), for example, argues that social media reduces users' exposure to contradictory views whereas others, including Williams et al. (2015), believe that social media has opened up a platform for multiple different opinions and views. Sunstein (2002, 2009) believes that the Internet and social media limit our exposure to views that contradict our own because we can personalise what we see. With scholars such as Sunstein linking the rise of echo chambers to social media, some studies argue the consumers have the tendency to choose news and information from outlets that side with

their political views (Garrett, 2009; Iyengar & Hahn, 2009). Because some commercial websites will provide similar information according to the search results, when people choose the information source, they have already filtered the information. This strengthens the differentiation of the crowd to a certain extent, and it is easy for people to stick to the circle of information and opinions that conform to their own preferences. Different circles are also isolated or even opposed to each other, which leads to the formation of the echo chamber effect (Garrett, 2009). It has also been stated that echo chambers have not been used by users to entirely isolate themselves from other ideas, but content challenging their views to a lesser extent has been used. This has been said in instances of a controlled environment (Garrett, 2009). The creation of echo chambers in social media also must be seen from the aspect of the aggregators. News and other media aggregators in social media have increasingly controlled content by personalising it through the use of data science and algorithms (Agichtein, Brill, & Dumais, 2006). Agichtein, Brill, and Dumais (2006) have examined how the incorporation of the behavior of the user data can significantly help in curating content that is provided in a web search. This is also applicable in the case of social media where the aggregators use the behavior data to control the content, which leads to the formation of echo chambers in social media.

Williams et al. (2015) found evidence of echo chambers when they were studying discussions about climate change on social media. On the other hand, there are forums in social media that are open to communities with diverse attitudes, which reduces polarisation and the formation of echo chambers. Bruns (2017) has found that there is limited evidence of the assertion that social media users experience their environment in everyday social media as echo chambers. This has been deduced from a study of Twitter user data assessing the threat of echo chambers. Bruns (2017) demonstrates the limited emergence of echo chambers in social media, yet there are formations of clusters that are based on the network of followers (Bruns, 2017). There has also been earlier works where it has been argued that the larger number of options related to social networks provides increased exposure to diverse ideas and information that limits individuals from forming in clustered and narrow groups. As such, consumption on such networks is free from echo chamber effects (Benkler, 2006; Goel, Hofman, & Sirovica, 2012). There have been studies that have quantified the existence of echo chambers in social media and other online platforms through the study of blogs (Gilbert, Bergstrom, & Karahalios, 2009). Jann and Schottmüller (2018) have suggested that echo chambers are the result of the dissimilarity in the inclinations of users. The separation of users

based on mistrust and difference in opinions of other people has led to the creation of homogeneous groups through which echo chambers have emerged. It has also been stated that echo chambers are not a threat, as has been portrayed in popular discourse. Echo chambers have acted as a decent podium for communication between people with different views (Jann & Schottmüller, 2018).

3.4. Echo chambers and selective exposure

When thinking of echo chambers and how they may affect individuals, the idea of selective exposure is useful. Selective exposure means that when people come into contact with the information provided by the media, they will choose information that conforms to their own thoughts, beliefs, and attitudes, and avoid information that does not conform to their own thoughts (Stroud, 2017). This concept also further emphasises the importance of individual choice, that is, any systematic bias in the individual's choice among existing information will drive them to actively seek information that supports their own views, and actively avoid the opposite information (Stroud, 2017). Selective exposure can be said to be the first step in the formation of the echo chamber effect. Selective exposure reflects the way individuals choose, indicating that individuals often search for information in a biased and deterministic way. When individuals look for information on the Internet with prejudice, they are also more inclined to discuss their own ideas with people who have the same voice. This mutual support makes it easier for users' views to resonate on social media and gradually form an echo chamber. There are theories through which technological development both supports and rejects the cultivation of echo chambers on online platforms. A study by An et al. (2014) uses the theory of selective exposure to research the behaviour of individuals related to the choice of content. Selective exposure has been seen in Twitter where the selection and sharing of the news depend heavily on an individual's views as well as also the credibility of the source of the news and the information of the news article.

Other studies have explored potential exposure (Bakshy, Messing, & Adamic, 2015; Garimella et al., 2018). Bakshy, Messing and Adamic (2015) analyse the exposure in social media to diverse news, opinions and information, which cross the ideological lines of individuals. In their study, they investigated how 10.1 million American Facebook users share news on social media. They found that users have their own network of friends on social media, and the news shared by friends

provides users with a range of reading beyond their own consciousness, but personal choices play a key role in what information they can get. In the end, the authors conclude that people may only talk to like-minded people on the Internet. This study proved that selective exposure is one of the reasons for the formation of echo chambers. A study by Garimella et al. (2018) uses the theory of potential exposure to study gatekeepers and partisans. They studied the presence of an echo chambers in social media by using both content and network analysis. The analysis encompasses the behavior of individuals and their consumption, as well as production patterns both within the network and at the individual level based on Twitter data and associated information. A case study by Garimella et al. (2018) collected 10 sets of data from Twitter that engage a wide range of users and the topics cover both political and non-political discussions and debates. The aim was to study echo chambers and political discourse on Twitter. The key finding concluded that there is an existence of echo chambers in the case of political debates. Also, network exhibit polarisation for political topics. The limitations of study of Garimella et al. (2018) are also seen in relation to the topic for the set of data where the analysis is highly concentrated on the US-related topics and English-speaking users. Nonetheless, the work is a major step towards the study of echo chambers, and the bridging of the gaps will lead to a more extensive study on echo chambers.

This review of the use of the major theories of echo chambers has helped in the understanding of the diverse conditions and motives that are required for the formation of echo chambers. There have been diverse factors involved in the application of the theories to analyse echo chambers in social media, but there is scope for the further research. This thesis aims to add to the existing knowledge.

4. METHODOLOGY

This chapter outlines how the thesis explores echo chambers. The chapter outlines the method of my study, introduces the case study, explains the data collection and the data sample. The thesis employs mixed-method approach as it uses quantitative data and qualitative analysis to address the research questions. The methods used include document analysis and hashtag content analysis. The main aim of the thesis is to further investigate whether echo chambers exist by investigating

hashtag use on Twitter. The thesis uses the CAA protests in India as a case study and examines how different groups have used Twitter hashtags during the protests.

4.1. Analysis of Twitter hashtags

This thesis analyses tweet hashtags on microblogging site Twitter. The digital public sphere of social media in online spaces such as Twitter has been used as a means for virtual socialisation and communication. These virtual spaces in the media allow for the discussion of common interests, engagement in debates, campaigning, and an attempt by activists to spread awareness and bring about social change. In this study, Twitter hashtags are used to investigate whether there is a clustering of users on the social media platform surrounding a common political interest. Twitter embodies social networking characteristics as it assists consumers to connect and follow other consumers for information and to share opinions. Moreover, Twitter connections have been more about the sharing of information rather than building social relations in the virtual world such as with friends and family (Gruzd, Wellman, & Takhteyev, 2011). Twitter, among other social media platforms, has been Active in the sharing of political interests through short messages.

As a microblogging site, Twitter initially allowed users to post and exchange messages with 140 characters and the site was generally used for conversation and to share and report information and news (Castillo, Mendoza, & Poblete, 2011). However, this was increased to 280 characters in 2017 (Tsukayama, 2017). Twitter can be used for posting opinions or any tweets as well comments only by a registered user, but those tweets and comments can be viewed by anyone. Moreover, like on other social media platforms, Twitter comprises groups or ideologies, newspapers, bands, organisations, etc. in addition to individuals. The characteristics of microblogging allow Twitter to share all types of information such as news items, observations, comedy, opinions, ideas, political commentaries, and interpretations, and so on. Twitter allows commenting, discussions, and debates as well as conversation between people in the virtual world who may not be connected in the physical world. Thus, Twitter forms a platform wherein the users can choose to comment on a tweet and reply to the comment of their preference. Although many other social media platforms allow for such ideological and political exchange in the public sphere, user penetration of Twitter is significant and is used widely across the world.

As a widespread microblogging media, Twitter has been used for sharing information of political interest on a massive scale. According to Tankovska (2021), in 2021, Twitter had 187 million monetisable daily active users worldwide, and was particularly popular in the United States, which at the time of the study had 69.3 million users. Japan and India were ranked second and third with 50.9 and 17.5 million users (Tankovska, 2021). Political discourse has been active on Twitter during elections in recent years (Shamma et al., 2010). Twitter activities during elections have indicated a high level of interest in politics (Shamma et al., 2010).

The platform has provided a great opportunity to be popular and offers politicians a chance to engage and deliberate with the public, in addition to providing an adequate and effective platform to offer responses to the opposition (del Olmo & Díaz, 2016). Moreover, with the increased mobility of the use of the platform, there is flexibility in communication and fast interaction. With the increase in use for political and social issues, there have been associated limitations regarding communication and debates due to character limits, which have created problems in explaining the complexities and significance of various issues (Park, 2013). As stated above, the issue was resolved by doubling the number of characters in a tweet. The increase in the numbers indicated the growing popularity and the significance of the use of the platform for communication on crucial issues and offering opinions on matters of importance. Thus, Twitter has been used by people with an interest in politics as well as politicians to engage with like-minded people as well as to participate in debates, discussion, and engagement.

There have been several research studies done that indicate the significance of Twitter in political discourse (Gaughan, 2017; Zhang et al., 2018). In Gaughan's (2017) study on Twitter and federal campaign and finance law, it was found that there has been a transformation of the election campaign and candidates' communication with voters due to the Internet. According to the Pew Research Center (2016), use of new communication platforms like Twitter meant tens of millions of voters were reached for free and nearly six billion dollars was earned by Donald Trump in 2016 (Pew Research Center, 2016). Zhang et al. (2018) studied the concept of amplification in the hybrid media system by applying it to the use of Twitter during the 2016 U.S. election campaign and found that algorithms guide the content on social media and possibilities of the actions of the citizens are related to the amplification. My study uses a similar research method to Alex Krasodonski-Jones (2017) to study echo chambers on Twitter. A study entitled "Talking to

Ourselves? Political Debate Online and the Echo Chamber Effect”, conducted by Krasodonski-Jones, used hashtag content analysis as its method. He collected Twitter data from 2,000 users who demonstrated their support for four political parties (Conservative, Labor, UKIP, and the SNP) in the United Kingdom (Krasodonski-Jones, 2017). To research echo chamber effects on Twitter, Krasodonski-Jones studied how the supporters of the political parties shared content on Twitter, how they retweeted, and how they used hashtags and mentions while tweeting. In Krasodonski-Jones’ hashtag analysis, the researcher chose 200 out of 58,900 most popular hashtags and classified them into 11 categories and identified the relationship between each political group. While I use a similar kind of method, my research has a significantly smaller sample size and it only analyses use of hashtags. In my research, focus is not on personal accounts but on group accounts. Group accounts are divided into three categories: pro-CAA groups, anti-CAA groups, and media groups (neutral). By comparing and analysing whether these three groups use the same hashtags, and calculating the proportion of each used hashtags, I aim to evaluate whether Twitter can be seen to function as an echo chamber.

4.2. Meaning of hashtags

Hashtags are one of the most important features of Twitter as they enable users to annotate tweets with metadata for an intentional audience or to identify the topic (Conover et al., 2011). In political communication, the importance of the hashtag lies in enabling the communicators to extend messages. For example, hashtags can be used for party communication to spread messages beyond the followers of the party (Small, 2010). Hashtags are visible to even non-Twitter users, enabling them to follow conversations through a simple Google search (Small, 2010). The communication practices using hashtags are significant for political use in campaigns by politicians, by the public to discuss particular political issues and campaigns as well as comments on Twitter during campaign events such as political debates on television, party conventions and election day coverage (Jungherr, 2014). There is evidence of hashtags being instrumental in partisan politics (Small, 2011). For example, #U.S. election, #BlackLivesMatter, and #CAA protest were used in political discussions on Twitter. Political hashtags can be used for a more systematic understanding of the use of hashtags in the political context in the analysis of Twitter (Small, 2011).

Hashtags and mentions by users are the metadata in a tweet that provide the tweet data. Hashtags are the keywords or catchphrase that enable a tweet to be a part of the broader discussion on a particular topic. Hashtags are used to form instant communities by the users wherein the hashtag becomes the clickable link through which there is a demonstration of the collective identity or the political organisation (Sharma, 2013; Small, 2011).

There are hashtags that are in reaction to popular culture and activities or actions of popular figures (Marshall, 2014). There are also other hashtag responses, such as breaking news or through the sharing of protest movements, for instance, an online gathering (Kaye & Johnson, 2014; O'Hallarn & Shapiro, 2014). It is important to note that a hashtagged phrase in a tweet from individual users has the capability to be aggregated and retweeted, thus allowing people from outside the original tweeter's network to circulate the message and make it viral (Boyd et al., 2010 as cited in Vickery, 2016). Links between tweets within a hashtag are possible without any relationship to the original tweet; there can also be easy access between the users to the information expressed by other people using the same hashtag. The hashtag provides a common ground to all members of the social networking community to share and discuss as part of a single community. Therefore, the online community formed and developed by like-minded users is the result of the incentives provided by the hashtags.

4.3. Research questions

The main research questions for the research can be formulated as:

RQ1. What are the main arguments of proponents about the CAA Bill?

RQ2. What are the main arguments of proponents evident in the Twittersphere?

RQ3. How are hashtags used by groups supporting the CAA?

RQ4. How are hashtags used by groups opposing the CAA?

RQ5. Does the use of hashtags support the view of Twitter as an echo chamber?

4.4. Mixed-method approach

My research is based on a mixed-method approach as it uses quantitative and qualitative research methods to analyse research questions. The research uses document analysis and hashtag content analysis to investigate whether Twitter functions as an echo chamber. First, document analysis is employed to investigate whether echo chambers exist in the public sphere, outside of Twitter, and whether the views of different groups are carried from the public sphere to the digital public sphere, in this case Twitter. Document analysis is a form of qualitative research in which researchers interpret documents based on research topics (Bowen, 2009). Researchers determine what to search, then organise the information into content related to the core issue of the research. There are many reasons why researchers choose to use document analysis. Document analysis is an effective form of data collection because documents are useful and manageable resources. Documents are commonplace and come in many forms, making documents accessible and reliable sources of data. The process of obtaining and analysing documents is usually more cost-effective and time-efficient than conducting your own research or experiment (Bowen, 2009). For my study, speeches Prime Minister Narendra Modi offer a glimpse to his views on CAA in the public sphere. They also offer a comparison point to analyse his views in the public sphere and the digital public sphere such as Twitter. As mentioned earlier on, Modi has historically used media platforms to express his own views while suppressing opposition views. Similarly, by analysing the documents articles published by The Milli Gazette we can analyse if it repeats its believes of CAA across the different media platforms.

However, documents may not be complete or they may be biased. The limited number of documents analysed here are ones which were publicly available and written in English. For the purposes of this study, it was not possible to analyse large sample of documents because of the language barriers and resources for this kind of research.

The documents analysed include Modi's two speeches about CAA and an article written by The Milli Gazette. This analysis helps to answer RQ1 and RQ2.

Second, a content analysis of hashtags (#) was conducted to examine how the different groups voiced their opinions about the CAA Bill. In general, content analysis is widely used to analyse content and its characteristics (Stemler, 2001). The content analysis method can be used to analyse words, text, pictures, social media data, books, and journals. Content analysis is different from other research because it does not collect data directly from people. Rather, it is a study of data

that has been recorded in social media, texts or books, or any other physical or virtual form. Content analysis can identify hidden aspects of content, analyse and present major discoveries in content clearly and effectively (Cloutrack Software Labs, 2021).

My study uses a similar research method to Alex Krasodonski-Jones (2017) who studied echo chambers on Twitter. His study “*Talking to Ourselves? Political Debate Online and the Echo Chamber Effect*” uses hashtag content analysis as its method. In his study, Twitter data was collected from 2,000 users who demonstrated their support for four political parties (Conservative, Labor, UKIP, and the SNP) in the United Kingdom (Krasodonski-Jones, 2017). To research echo chamber effects on Twitter, Krasodonski-Jones studied how the supporters of the political parties shared content on Twitter, how they retweeted, and how they used hashtags and mentions while tweeting. In Krasodonski-Jones’ hashtag analysis, the researcher chose 200 out of 58,900 most popular hashtags and classified them into 11 categories and identified the relationship between each political group. His study found that echo chambers do exist on Twitter. While my sample is vastly smaller than in the UK study, it also analyses use of hashtags, and a content analysis is carried on the number of hashtags used on Twitter. After the quantitative analysis, hashtags were analysed and categorised based on their content. The hashtags were divided in two categories for further analysis, pro and anti-CAA hashtags. Content analysis of Twitter hashtags will help to find out about the meanings of tweets posted by different groups. I will identify if echo chamber does exist on by using content analysis of Twitter hashtags. This analysis helps to answer RQ3, RQ4 and RQ5.

My goal in this thesis is to explore whether there is an echo chamber effect on Twitter through document analysis and hashtag content analysis. As such, qualitative analysis needs to be combined with quantitative data. Analysing the content of the hashtag alone could not answer the question of whether the echo chamber effect exists. It has been stated that qualitative analysis assists in the investigation of the questions concerning *why*, whereas quantitative analysis helps in answering the questions of *what* (Elo & Kyngäs, 2008; Julien, 2008). In addition, the quantitative method enables the transformation of the data available into an organised form to analyse and draw a conclusion. The qualitative method is inherent in all text that is read even when the data is converted into numbers by organising it into a summary in a quantitative form (Krippendorff, 2004; Riffe, Lacy, & Fico, 2014). Only by using quantitative data will we know how many groups

of people use pro-CAA hashtags and how many groups use anti-CAA hashtags. The most important thing is to analyse whether the group account uses the other party's hashtag.

4.5. Data collection and sample

The quantitative data for this thesis was collected during June–July 2020. The time frame chosen for the study can be justified by the fact that the Citizenship Amendment Bill or CAB was passed on December 9, 2019, by the Lok Sabha, then passed by the Rajya Sabha on December 11, 2019, and was finally enacted as the Citizenship Amendment Act or CAA on December 12, 2019. The protests took on an enormous shape and were countrywide as well as global. While the peak of physical demonstrations was at the end of March 2020, the online protesting and campaigning continued until August 2020. This study uses third-party application Twitonomy as a data gathering tool. Because the platform only allows users to access limited historical data sets, retrieval of data was somewhat compromised. I was only able to collect data about CAA hashtags from the platform during the period of June and July. Another third-party tool used to collect data was Hashtagify.

Twitonomy is a tool developed by Twitter and it has free and paid services. It enables the user to search for tweets and hashtags for analytical purposes (SAGE Ocean, 2020). For this study, a paid version of Twitonomy was used because it provides graphic analytics of tweets and retweets, hashtags, mentions and replies (SAGE Ocean, 2020). These help in the segregation and the organisation of data for the analysis of Twitter communications. Moreover, through these tools, the search analytics on any keywords, hashtags, URL or @users was received and exported into Excel sheets and stored on OneDrive. Hashtagify is the advanced Twitter hashtag tracking tool. It allows anyone to find the best hashtags to reach their audience. It also has free and paid services. The free version of this service was found to be sufficient for this study. The free service helps you find out the most popular hashtags on Twitter, filtered by popularity, relationship, language, and influence, etc.

While using Hashtagify and Twitonomy, 400 useful hashtags related to the CAA protests were identified, and after an elimination process, 20 most frequently used hashtags were chosen for investigation in this thesis. How the sample size was determined is explained here.

The initial search for CAA hashtags on Twitonomy returned 400 hashtags, and based on those, it was possible to identify the most active groups using CAA-related hashtags. To start my research, Twitonomy was first used to find the most active groups on the topic of the CAA protests. These were identified as @BJP4India, @IndiasMuslims, and @OpIndia_com.

@BJP4India is an official Twitter account of the ruling Bharatiya Janata Party (BJP) with 14,661,467 followers. It has a high daily interaction rate with followers. It is the official account that announced the passing of the CAA. The BJP is the fundamental Hindu ruling party in India and it aimed to mobilise the entire population towards the acceptance of the CAA. This official account often makes tweets about why the CAA should be accepted.

@OpIndia_com is an Indian news, opinions website connected to BJP. It has 452,647 followers. This account is also one of the accounts that initially announced that the CAB had officially become the CAA. It also reported all the news about the follow-up CAA protest and the Delhi riots.

@IndiasMuslims is the collective voice of India's Muslims. It has 62,255 followers. Muslims are the biggest opposition group to the promotion of the CAA.

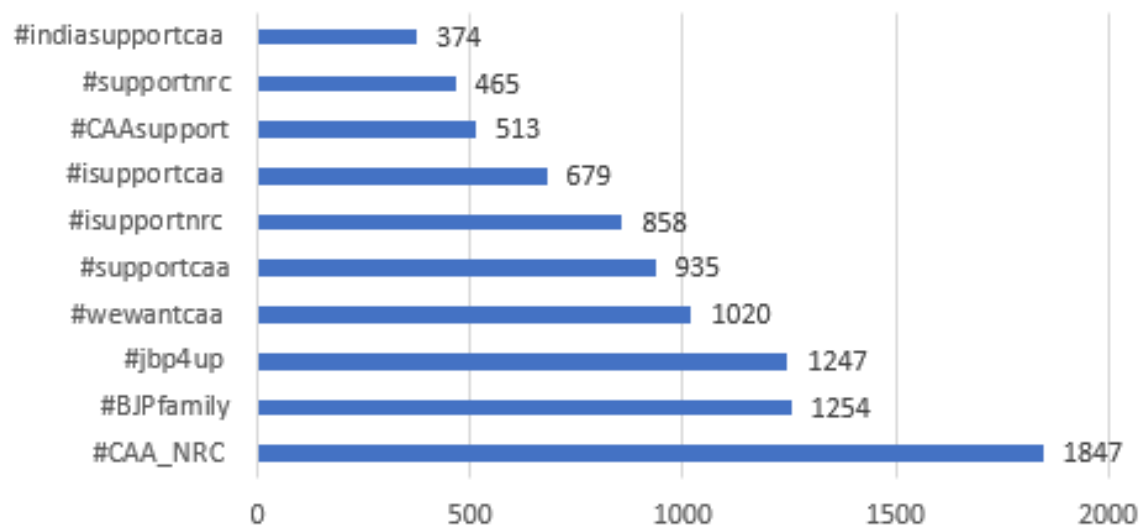
These three group accounts represent pro-CAA group accounts, neutral media accounts, and anti-CAA group accounts.

Further data analysis on Twitonomy revealed that the hashtags mostly used by these three groups were: #CAA; #Indianmuslim; #SayNoToCAA; and #CAAprtest.

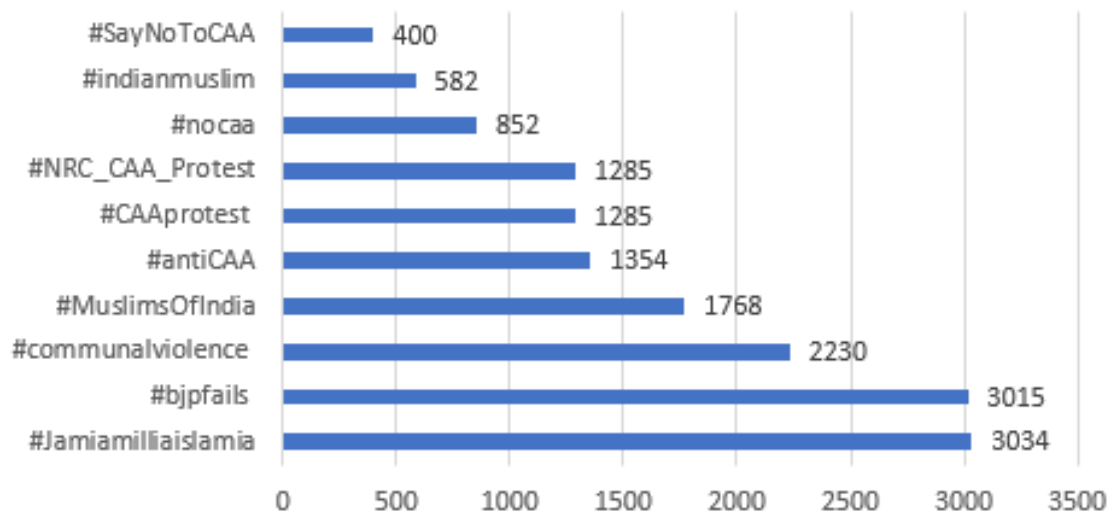
When entering #CAA, #Indianmuslim, #SayNoToCAA, and #CAAprtest into the Hashtagify tool, it provided 573 similar hashtags. According to the ranking of frequency (how many times each hashtag been used from June to July), only 400 hashtags were used by multiple group accounts and forwarded by multiple private accounts. The remaining 173 hashtags were only created and used by a private account and were not used by group accounts, so they were eliminated from the sample. By analysing the meaning of hashtags, 400 hashtags were clearly

divided into two groups: pro-CAA hashtags and anti-CAA hashtags. Because of the scope of this study, and my limits in terms of analysing large data, the 10 most used pro-CAA hashtags and 10 most used anti-CAA hashtags between June to July 2020 were chosen as a sample of the study. The most used hashtags were identified from the data retrieved from Twitonomy. More detailed analysis will be offered in Chapter 5 to answer RQ 3, RQ4 and RQ5.

Graph 1: 10 Most-Used Hashtags for Pro-CAA Groups, June to July 2020



Graph 2: 10 Most-Used CAA Hashtags for Anti-CAA Groups, June to July 2020



5. FINDINGS

This chapter introduces the findings of the research. As stated, the main aim of the thesis is to examine whether Twitter functions as an echo chamber and what evidence we have to support this hypothesis.

To answer **RQ1**, document analysis was conducted using two speeches from Prime Minister Narendra Modi and one article from Indian Muslim newsgroup *The Milli Gazette*. Key arguments were extracted and examined from these documents. To answer **RQ2**, three tweets each from Modi and *The Milli Gazette* were examined to extract key arguments they made on Twitter about the CAA protests. These arguments were then compared to the arguments made outside Twitter to see whether the same ideas from the public sphere were carried into Twitter and whether echo chambers moved from the public sphere to the digital public sphere, specifically Twitter. Then, to answer **RQ3**, **RQ4** and **RQ5**, this study continued to investigate the use of hashtags by three different groups (a pro-CAA group, an anti-CAA group, and the media). Hashtag content analysis examined how different groups used hashtags. The purpose of hashtag analysis was to investigate whether there is an echo chamber on Twitter. Twenty hashtags in total were analysed to check whether these groups used hashtags consistent with their views of supporting or opposing the CAA. For better understanding and comparison, the shortlisted hashtags were categorised into three groups: Group 1 – official accounts; Group 2 – media accounts; and Group 3 – Muslim accounts. The segregation of tweets into the three defined groups was based on the role played by them in CAA debates. As mentioned in the methodology section, CAA debates on Twitter mainly come from two types of users. One type consists of the users and groups who support the implementation of the CAA, and the other consists of the users and groups that are affected by the CAA and firmly oppose the implementation of the CAA. Among the groups opposed to the CAA, Muslim groups' accounts are the most active groups participating in the debate. One of the categories is media groups, because local media in India are very sensitive to the topic of the CAA. They use both pro-CAA hashtags and anti-CAA hashtags, but the media seldom express their own position. Therefore, by analysing the usage of hashtags in each group, it can be concluded whether there is an echo chamber effect on Twitter. RQ5 answers the question of whether Twitter can be seen as an echo chamber.

5.1. Evidence of polarised views outside of Twitter

To answer the first research question, **RQ1**, document analysis of Prime Minister of India Narendra Modi's speeches and *The Milli Gazette*'s article against the CAA was conducted. The aim was to extract and examine the key arguments made by them about the CAA Bill. The findings show that the views of Prime Minister Modi and *The Milli Gazette* were polarised in the public sphere. In his speech, Modi defended the CAA Bill by saying that it protects minorities, supports those who are oppressed, and that it will bring peace to the country. On the other hand, and perhaps not surprisingly, *The Milli Gazette* argued that the Bill excludes minority groups and those under threat, and that it has limited possibility of bringing about changes in a democracy.

The analysis of the speech given by Prime Minister Narendra Modi, recorded by the *Times of India* (2020) newspaper, brings to light the fact that the law or the CAA Bill are not aimed at affecting any Indian citizen. The CAA Bill was introduced by India's current ruling party, the Bharatiya Janata Party. In his speech, Modi criticised Pakistan for continuing to wage proxy wars against India after losing three wars. He claimed that Pakistan did not treat ethnic minority groups fairly. Prime Minister Narendra Modi of the Bharatiya Janata Party said in his speech that the CAA was formulated for those refugees who have been persecuted abroad for many years and have nowhere to go except India. He stated that the CAA is a protection for "religious minorities in neighbouring countries" (Times of India, 2020). He said to those who opposed the implementation of the CAA, "India had assured minorities in Pakistan and Afghanistan when it got independence that they could come to the country if needed" (Times of India, 2020). He clearly assured fellow Indians that the CAA would not affect any religious beliefs, and that no Indian citizen should worry about this Bill. It was emphasized that Modi and his government would naturally firmly support the implementation of the CAA.

In his speech, recorded in the *Times of India* (2020), Modi argued that the Bill was necessary because:

- It corrects injustice
- It protects minorities

- It fulfills India's promise to minorities in other countries
- Terrorism thrives without the Bill
- It is India's responsibility to give these people refuge
- The Bill aims to help the people who are oppressed
- The Bill will bring peace

The second speech highlights the defensive Act of the PM while blaming the Indian National Congress, the opposition party for instigating negative feelings among minorities (Varma, 2020). In this speech, Modi first attacked the Indian National Congress. He said: "The law will not affect any Indian and that the Congress was instigating minorities (Varma, 2020)." He mentioned that the Indian National Congress did not really take action to solve the problems of minorities during its administration, and that the Indian National Congress was inciting opposition. He argued that the Indian National Congress interfered with the implementation of the CAA. Secondly, Modi mentioned again that the "CAA does not affect any citizen in the country whether they are Hindus, Muslims, Sikhs and Christians. No minority will get affected by it. Congress is instigating minorities. Opposition is wrong in their actions and it will create difficulty for them. We must all think about the country" (Varma, 2020) The Bill was therefore argued to be in favour of minorities and not against them and was being implemented to bring about justice for those who had been denied justice for too long.

The following key arguments were found in the second speech with the PM's aim to make minorities understand that:

- Congress was instigating minorities
- There is no impact on citizens
- The Bill favours oppressed classes
- No religion is in danger due to the Bill
- Citizenship would be granted to refugees

The speech delivered by PM Modi highlights the fact that through the integration of the Bill, it is possible to ensure that oppressed minorities in other countries would be given the right to return to India and be a respectable citizen of the country. The focus of the Bill is on the individuals who

have not been able to get the help they were deserving of. PM Modi stated the fact that the Bill would not affect any citizen of the country irrespective of their religion. The “CAA does not affect any citizen in the country whether they are Hindus, Muslims, Sikhs and Christians” (Varma, 2020).

The Milli Gazette’s major argument against the CAA Bill was the fact that minority groups such as Muslims, Jews, Ahmadis and Shias were not included (*The Milli Gazette*, 2020). *The Milli Gazette* stated that despite the vicious and violent attacks against the Ahmadis and Shias in Pakistan, the CAA Bill excluded them. *The Milli Gazette* (2020) further stated that the “CAA flouts several points made by the Constitution of India. While discrimination in any manner on the basis of religion is prohibited under Article 15 of the Constitution of India, it is also mentioned in the constitution that granting refuge is a norm of laws that are applied at an international level”.

Additionally, the Bill was suggested to be a means of bringing about a change in the demography of the country. *The Milli Gazette* argued that the communities in north-eastern states felt that the Bill had the potential to catalyse changing democracy in the region. *The Milli Gazette* (2020) reported that “The influx of Bangladeshi Hindus was a chaotic situation and Assam already has faced bloodbaths due to the situation wherein illegal Bangladeshi immigrants entered the state. The possible chaos, destabilization and demographic segregation within the country are identified as the crucial negative outcomes of the Bill implementation”.

According to *The Milli Gazette*, the Bill had a ray of hope for only a portion of Hindus, Sikhs, Buddhists, Christians and Jains and limited the possibility of being a citizen of India for several others who fell beyond the cut-off range. *The Milli Gazette* (2020) makes the point that no proper thought has been given on the way that minorities from other country will be integrated to implement the Assam National Register of Citizens [NRC] wherein the cut-off date of March 1971 is applicable. More than two million individuals had failed to appeal due to the lack of documents and papers required for the completion of the registration process.

The point made by the Indian Muslim group The Milli Gazette through *The Milli Gazette* was that the CAA Bill was fuel to the fire that already burns in north-eastern states due to the discrimination among Assamese and Bengalis. The complications due to the ethnic differences and relationships would be further aggravated due to the CAA and therefore a large section of the population opposed its implementation and execution. While Hindus excluded from the Assam NRC can

apply for official citizenship under the religious persecution category, Muslims need to go through a long legal process to prove their legal right to be a citizen of India.

Through the analysis of two speeches and an article, it can be concluded that while the Bill was observed as an opportunity to bring peace and justice, in particular by Modi, it was seen by *The Milli Gazette* to have an unclear and biased application for the minorities within the country. It is clear that the Muslim groups hold opposite ideas to what Modi had suggested.

5.2. Polarised views expressed on Twitter

To analyse research question two (**RQ2**) – “How are the main arguments of proponents evident in the Twittersphere?” – tweets of Prime Minister Modi and *The Milli Gazette* were examined to see whether they repeated their views on Twitter. Three different tweets by PM Narendra Modi and *The Milli Gazette* were analysed. The analysis of tweets showed that Prime Minister Narendra Modi continued to defend the CAA Bill in the digital public sphere. The reason behind the constant defence of the CAA Bill is the fact that it was brought to motion by his government. The tweets made by PM Modi in sync with his argument about the implementation of the CAA reflect the stability and constant line of understanding about the benefits that the CAA Bill was proposed to bring to the country.

Figure 1: Tweets by Modi arguing CAA's effectiveness



Source. Twitter, December 16, 2019

The tweets posted by Modi relate to the speech he had made earlier. It was found that PM Modi stated in his speech that the aim of the Bill was to provide justice to the communities that had been for too long oppressed and the same message was conveyed in his tweet stating that the Bill would have no impact on any citizen of the country. He affirmed that it was only being executed to do justice to those who have no place to go and need to be a part of the nation. It is clear to see the same key ideas appearing in his speeches and tweets. For example, he emphasized, “This is time to maintain peace” in the first tweet, and in the first speech there was a similar argument: “The Bill is bringing peace”. In the second tweet, Modi wrote the “CAA does not affect any citizen of India of any religion”, which echoes Modi’s argument in his second speech: “There is no impact on citizens”; “No religion is in danger due to the Bill”; and the “CAA Bill is for all”. In addition, he once again emphasized the reason for implementing the CAA in the second tweet: “The Act is only for those who have faced years of persecution outside and have no other place to go except India”. This is the same as his remarks made in the first speech: “The Bill aims to help the people who are oppressed”; and “It is India’s responsibility to give these people a refuge”. A similar argument appearing in both the speech and tweets proves that Modi has carried the same arguments from the public sphere to Twitter. He also restated his mention of the spread of rumours and false

news and requested that citizens of India not be swayed by the false claims being made by other political parties and groups. Thus, Twitter was used by Modi as an echo chamber wherein beliefs were being amplified and reinforced through the repetition of the same facts and arguments.

Figure 2: PM Modi suggesting citizens not indulge in protests against the CAA



Source. Twitter, December 16, 2019

The tweet published on December 16, 2019 points to the fact that PM Modi's aim behind stating the benefits of the CAA Bill for the oppressed classes would lead to justice for individuals who had been denied equality for a significant period of time. He expressed his disappointment towards the reaction that the citizens of India were in opposition to the implementation of the CAA. PM Modi's speech as well as tweets synced with each other in the context of the benefits that the CAA Bill would have for the communities and also functioned as an appeal made to the individuals in not responding with hatred towards the Bill's execution. The tweets highlighted that the rumours should not be absorbed. Three tweets published by Modi state that India has a responsibility to provide citizenship to ethnic minorities in neighbouring countries who have suffered religious persecution. He also believes that the implementation of the CAA will not harm any Indian citizens. He indicates that Indian citizens should show their tolerance and acceptance of refugees. Similarly, *The Milli Gazette* used the same kind of arguments in its tweets as it used in its online article. The use of Twitter as the platform to further address the issue and argue against the

implementation of the CAA Bill was also observed in *The Milli Gazette*'s account. As in the article, *The Milli Gazette*'s Twitter account supported the drive against the CAA Bill by suggesting that the Bill was partial in nature and would do no good to minorities. The aim of the tweets by the Muslim group was to bring forth their emotions against the implementation of the Bill and highlight the negative impact that the Bill would have on Indian citizens.

Figure 3: Link shared by The Milli Gazette on Twitter



Source. Twitter, December 10, 2020

It can be observed from Figure 3 that the Muslim group expressed their opinions against the CAA Bill by sharing an anti-CAA protest picture. The tweet has the hashtag #WorldAgainstCAA, which is the central idea of *The Milli Gazette*'s article. According to the picture shared by *The Milli Gazette*, the news agency called on everyone to participate in the protest on December 11, 2020 to oppose the implementation of the CAA. Although *The Milli Gazette* did not repeat the reasons for opposing the CAA on Twitter, *The Milli Gazette* expressed their opposition to the CAA on Twitter. *The Milli Gazette* sees Twitter as a platform to expand political influence. *The Milli Gazette* hopes

that followers will also join the opposition to the CAA. Therefore, *The Milli Gazette*'s tweet and article have the same central idea – to oppose the CAA.

However, at the same time, it is also important to shine light on the fact that *The Milli Gazette* shared different tweets that highlighted the inability of the ruling political party to grab the attention of the larger share of population. In Figure 4, *The Milli Gazette* shared a link and stated: “BJP could not even get one person per village to support CAA” (*Milli Gazette*, 2020). This statement simply expresses *The Milli Gazette*'s dissatisfaction with the BJP. *The Milli Gazette* also cited an article of its own to attack the BJP. Modi prefers to use text on Twitter to express his and the government's support for the CAA. *The Milli Gazette* uses more Twitter features to turn Twitter into a tool to increase political participation and political influence. *The Milli Gazette* uses pictures on Twitter and cited articles to increase the credibility that the CAA should be opposed.

Figure 4: The Milli Gazette states no one supports the CAA on Twitter



Source. Twitter, January 5, 2020

Through Figure 4, it can be highlighted that the aim of *The Milli Gazette* has been to spread the word about the ruling party's failure regarding the Bill. In so doing, they have made use of Twitter as a digital public sphere. The digital platform that published the article (*The Milli Gazette*) claimed that there are numerous people in India who do not favour the CAA. This similar perspective was reflected in the tweets shared by their official account on Twitter.

Figure 5: Tweet linking *The Milli Gazette* article about against the CAA



Source. Twitter, January 10, 2020

Furthermore, *The Milli Gazette* encouraged its users to participate in protests against the CAA. In general, even if *The Milli Gazette*'s tweets do not use exactly the same terminology as its article, the central idea of being anti-CAA has also been brought to Twitter from the public sphere. It can therefore be concluded that the effect of the echo chamber is visible in the tweets made against the CAA Bill.

In summary, the focus on these specific tweets offers evidence of polarised views of both the groups i.e., in favour of the CAA Bill as well as against it. The analysis of supporter and opponent tweets shows that the polarised views of the CAA Bill were carried to Twitter. Through the analysis of the tweets published by both groups on Twitter, it can be concluded that Twitter is an echo chamber used by the groups to polarise their views and create a political phenomenon.

5.3. Supporters: Most-used hashtags by pro-CAA groups

To answer to research question three (**RQ3**), a quantitative content analysis of hashtags was conducted. While initially 400 hashtags were identified in support of the CAA Bill, 10 most-used ones were chosen for further analysis. Three main groups were found to use CAA hashtags including Group 1: official party accounts, Group 2: news media accounts, and Group 3: Muslim group accounts. The first and foremost aspect of the study reveals that the use of Twitter can be seen as an echo chamber for voicing opinions about the CAA. This is evident from the different arguments and opinions made on the platform. The findings show that Group 1: official party accounts used pro-CAA hashtags 90 times; Group 2: news media accounts used pro-CAA hashtags 156 times; and Group 3: Muslim group accounts used pro-CAA hashtags 11 times.

*Table 1: Frequency of use of pro-CAA and anti-CAA hashtags June-July 2020**

	Group 1 Official Party Accounts	Group 2 News Media Accounts	Group 3 Muslim Group Accounts
#CAA_NRC	19	23	3
#ProCAARally	11	21	
#procaa	8	8	
#bjp	7	26	3
#supportcaa	9	7	
#caasupport	8	11	
#antiMuslimrioters	2	17	
#supportbjp	6	12	
#indiasupportcaa	11	6	
#caa	9	25	5
#Jamiamilliaislamia	15	3	11
#bjpfails			10
#communalviolence		11	6
#MuslimsOfIndia		3	18
#antiCAA		2	6
#CAAprtest		11	7
#NRC_CAA_Protest		4	16
#AgainstCAA			8
#RejectCAA		3	12
#delhiriots2020	7	28	10

*Green: Pro-CAA

Red: Anti-CAA

Group 2, which consists of different news media organizations, used the pro-CAA hashtags more than any other group. This is because the media needs to quickly produce news based on current hot spots, disseminate it at the fastest speed, and attract users to read it. Using hashtags can help news media disseminate hashtag-related content to the public in the quickest time. Therefore, the news media use hashtags more frequently. Group 1, representing the official party, used pro-CAA hashtags 90 times. Official party accounts consist of the official account of the Indian ruling party,

and the civil organizations that support Modi and the ruling party. Their tweets about the CAA generally supported the implementation of the CAA. Since the number of pro-CAA official accounts is not as large as the number of news media accounts, the frequency of posting is not as high as news media accounts. Therefore, the number of uses of hashtags is lower than news media accounts. And Group 3, presenting Muslim groups, consists of Muslim groups that opposed the implementation of the CAA. Their tweets mainly expressed Muslims' opposition to the implementation of the CAA; they hardly used pro-CAA hashtags.

The following section will explain the meanings of pro-hashtags. The hashtags come from different users. Each hashtag has a different primary focus, which is further deciphered in the following subsections.

#CAA_NRC is the abbreviated form of the bill that was passed in the year 2019. The CAA is the abbreviated form of the Citizen's Amendment Act that was enacted by the Indian government on December 12, 2019. #CAA has been used widely in Twitter for those people and groups who discussed the CAA topic. NRC means the National Register of Citizens; it is an official record containing the names of all legal citizens of India. Thus, #CAA_NRC refers to the amended Act and the proposed register with legal details. The dominant group account using the hashtag is @VtvGijarati, which is a digital platform involved in Publishing. It provides an intersection of news as well as entertainment content that is for the modern age and is sourced from independent journalism consisting of the voice and opinions of young India.

A huge rally supporting the CAA and NRC was organised in Odisha, and therefore, it is referred to as #ProCAARally. The rally was organised on December 26, 2019 in order to create awareness about what the CAA and NRC meant and what impact each would have on people. The extent of the rally and the participation as well as attention it garnered led to the hashtag trending with the rally's name. The number one channel and digital platform of Odisha is OTV and the @otvnews group account became the dominant force behind the propagation of #ProCAARally. The use of the hashtag was clearly visible on the group's page, as the rally was organised in Odisha itself.

#proCAA is the hashtag associated with the individuals and aligned activities that were in favor of the implementation of the CAA. The hashtag was directed at all followers who have been and are in favor of the amended Act. The hashtag was made popular by @MumbaiMirror, which is known for being the largest compact newspaper in the whole of India. The group account enabled the

progress of the positive elements associated with the maintenance of an acceptance-based approach for implementation of the CAA.

The groups supporting the implementation of the CAA in India come under #indiasupportcaa. The motive of the hashtag is to show that India is in favour of the CAA. There are two group accounts that have contributed to the popularity of the hashtag. First is @BritIndianVoice, which consists of British Indians voicing their opinion about things happening in India. The second group that facilitated the spread of the use of the #indiasupportcaa includes @BJP4India, which is the official Twitter account of the political party. The promotion of the CAA was bound to happen from the political party that has ruled on the proposal and enacted the Bill.

Apart from that, the hashtag #bjp is used for the Bhartiya Janata party, which is the ruling party in India. The CAA was executed under the rule of the BJP itself. The hashtag is used by the individual followers and families of the BJP as well as fans who are in support of the NRC steps taken by the BJP. @Mumbai Mirror, a compact newspaper brand, has an official account on Twitter, @MumbaiMirror, which uses the hashtag #bjp to discuss and highlight the issues raised or points made by the political party. It used the hashtag yet again in context of the CAA NRC execution and enactment that was brought forth by the BJP, in a positive manner.

The followers of the CAA Bill who supported the move of the Indian government and spread awareness about the CAA and its potential benefits used the hashtag #supportcaa. The hashtag basically directed to the proposal and encouraged support of the CAA. The group account @indian_liberals defines itself as a group of people who are of the classical liberal tradition and who have formed a classical liberal political action committee. The group account has people and followers who support individuals with liberal views irrespective of their affiliation to a political party. The use of #supportcaaaa can be seen as being linked to the liberal opinion of welcoming a change that will improve overall citizenship prospects in India.

The users and individuals that discussed their opinion in support of the CAA used the hashtag #caasupport. The group account facilitating the popularity of #caasupport is owned by OpIndia.com and is named @OpIndia_com. The website publishes news and opinions of the people of India and interested in learning about the latest happenings of the country.

#antiMuslimrioter became the hashtag favoring the CAA but came with a view that individuals, including Indian citizens who do not want Muslims to be a part of the country, are in favor of the CAA. However, while the hashtag was observed as having an opposing viewpoint towards Muslims residing in India, the outcome of the use was to support the CAA. The group account that focused on the hashtag is @ETVBharatEng, which is the official Twitter account for the news provider ETV Bharat. The process of spreading news about how pro-CAA protestors functioned led to the development of the hashtag and the news channel account spread it further.

The group of individuals comprising admirers of the BJP, as well as the followers of the political party across the world, have used the hashtag #supportbjp. The context of supporting the BJP is associated with the determination of supporting the decision taken by the ruling party leaders. @knnindia is the group account for the Knowledge and News Network [KNN], which is an alternative news agency with the aim of focusing on India. The Indian news company, which is located in New Delhi, focused its attention on the ruling party and its decisions and therefore came up with the hashtag that turned out to be a frequently used hashtag.

From Table 1, it can be observed that Group 1 using pro-CAA hashtags 90 times. Most pro-CAA hashtags have been used by Group 1 official party accounts. It can be understood that the reason behind such a high percentage is associated with the fact that Group 1 consists of the official accounts that support PM Modi. The existence of an echo chamber on Twitter is reflected in the results of Group 1: official accounts using pro-CAA hashtags.

5.4. Opponents: Most-used hashtags by groups opposing the CAA

To answer research question four (**RQ4**), hashtag analysis was conducted to investigate how hashtags were used by groups opposing the CAA. For a more detailed analysis, 10 most-used anti-CAA hashtags have been selected. As seen in Table 1, Group 1 used anti-CAA hashtags 22 times, Group 2 used them 75 times, and Group 3 used them 104 times. Group 3, which consists of different anti-CAA Muslim group accounts, used the anti-hashtags more than any other group. They not only used anti-hashtags to express their reasons for opposing the CAA, they also use anti-hashtags with the word “protest” to appeal to everyone to join their anti-CAA protest. Group

1 consists of the official account of the Indian ruling party, and the civil organizations that support Modi and the ruling party. They are less likely to use anti-hashtags. They have tried to avoid using anti-hashtags to lessen the possibility of advertising any statements in opposition to the official party. Group 2 presents news media accounts. The news media has maintained its neutral position, having used pro-CAA hashtags as well as anti-CAA hashtags. They not only need to report on the latest news of the government related to the CAA, but also on the movement of the opposition, the reasons for opposition, and the social turbulence caused by the protests.

#Jamiamilliaislamia is the hashtag defining those who are either a part of Jamia Millia Islamia, which is a central university located in the Jamia Nagar of New Delhi. The fan following of the university and the students at the university have been identified as the key users of the hashtag for a number of different purposes. The origin of the link between the CAA protests and Jamia Millia Islamia University began with the thought process that the law is against Muslims. The university has a dominance of Muslim students. The Muslim students at the university led the protest. A New Delhi Sunday newspaper from the New Indian Express group managing the account @Sunday_Standard on Twitter took over the use and spread of the #Jamiamilliaislamia hashtag. The focus of the group is generally on New Delhi news and with no limitations or preference pertaining to the type or category of the news that is being shared. The use of the particular hashtag was due to the group wanting to bring to the light the way students were protesting against the enactment and execution of the CAA.

The hashtag #bjpfails was popularised to highlight the way the enactment of the CAA Bill under the leadership of the BJP government led to the rise of protests. The hashtag symbolizes the inability of the political party to control the situation within the country. The use of the hashtag has been observed in more than one context, and its application highlights all the bad or unsuccessful moves of the government. The group account that led to the extended popularity and application of the hashtag is named BJPFails. @BJPFails_ is a group made by an Indian who voted for the BJP in 2014 but is no longer in favor of the ruling political party.

#communalviolence is a commonly used hashtag that symbolizes the outbreak of riots and other violent instances due to different leading reasons. The form of violence associated with the violent practices and activities spread across the different observations and beliefs of different ethnic cultures and communities. This in turn spread to hatred among people belonging to different faiths.

The use of the hashtag was popularised during the CAA enactment as there were several instances of violence breaking out due to the perception among Muslims about their possible illegal status in the country. @ABPNews turned out to be the media group account highlighting news in relation to the CAA protest and communal violence that was the result of the bill's enactment.

The groups from within the Muslim community and those who support Indian Muslims are represented through the hashtag #MuslimsOfIndia. The hashtag was used during the CAA protests pertaining to the understanding that the Muslims residing in India would face a threat from the bill's implementation. It was suggested that the bill threatens their right to be a legal citizen of the country of their birth. The families of Muslims that have been residing in India for a significant period of time and over different generations used the hashtag to protest the CAA and draw the attention of the media to the harm that the CAA was likely to bring. The account that was responsible for popularising the hashtag #MuslimsOfIndia was made with the account name Indian Muslim @AIndianMuslim. The account focuses on the Muslim community and is dedicated to pursuing discussions related to the Indian Muslim community. It addresses the Indian Muslim who is concerned about Muslim people in India. The associated hashtag is #MuslimsOfIndia.

The groups who are in opposition to the CAA have used the hashtag #antiCAA, showing their animosity toward its enactment. @TheCoreIndian is the group account of The Core Indian, which is a news and media company that focuses on the voice of the citizens of the country.

The group comprising people who are against the CAA and who protested its execution led to the increased use of the hashtag #CAAprtest. The hashtag was used to define the feeling of being against the CAA. Thus, #CAAprtest brings to light the presence of elements in society that did not want the CAA Bill to be implemented. @the_hindu, the official Twitter account of *The Hindu* newspaper, turned out to be the most dominant user of the hashtag. Through the use of the hashtag #CAAprtest, @the_hindu highlighted different instances like violence and shutdowns across the country that were associated with the protests.

The hashtag #NRC_CAA_Protest is used by the individuals or groups that do not support the CAA and the formation of the NRC under the application of the bill. Worldwide Twitter users used the hashtag to express their feelings in opposition to the CAA. The official handle of Heritage Times on Twitter i.e., @HeritageTimesIN focused on bringing forth the reasons of protest against the CAA and NRC by extracting historical notions and information on the legal status of Indian

citizens. The hashtag was popularized by the group through its constant use in all the tweets that had a direct or indirect relationship with the protests.

The groups who clearly did not stand with the bill introduced by the ruling party started using the hashtag #AgainstCAA. The hashtag was used to express the opinion that the CAA is not an acceptable policy, and it should be taken back by the government. Thus, it highlighted the number of individuals who were on Twitter; it also offered an opportunity for them to express their feelings of being in opposition to the Act. @tv9kannada, the official account of the news and infotainment channel TV9 Kannada, demonstrated the use of #AgainstCAA. @tv9kannada shed light on the news revolving around the protests that happened due to the non-acceptance of the CAA by a large pool of individuals and organisations. The individuals who were against the CAA tweeted the hashtag, which was also spread by the news and infotainment channel.

The groups and organisations that were not in support of the CAA and wanted others to reject the bill started the use of the hashtag #RejectCAA. The hashtag #RejectCAA became popular due to the number of times people expressed their opinion of not accepting the CAA due to the unprecedented consequences it would have for some of the country's communities. SAALT, with official account @SAATweets, is a national social justice organisation that works on policy advocacy and analysis of issues that affect South Asian communities inclusive of immigration. The group addressed the demonstration of the lack of trust and acceptance of the CAA and NRC among individuals and used the hashtag #RejectCAA in its tweets to support the same.

The hashtag #delhiriots2020 refers to the riots in the north-eastern city of New Delhi, the capital of India, which were triggered by the amendments to the Citizenship Act. The riots were originally a clash between opponents and supporters, and later the Indian police were brought into the battle. Before the riots, opponents of the amendment to the CAA had been holding peaceful protests for months. "Protesters argued the law is unconstitutional because it treats Muslims differently from Hindus, Buddhists and other religious groups" (NPR, 2020). This hashtag has been used by @MilliGazette, which represents Indian-Muslim people.

To conclude, Group 3 used anti-CAA hashtags 103 times. Muslim groups dominate most protests against the CAA. Therefore, Muslim groups will use anti-CAA hashtags to strengthen their position and to resist the government. As can be seen from table 1, there is echo chamber evidence in Group 3.

5.5. Evidence supports the view that Twitter functions as an echo chamber

Research question five (**RQ5**) asks whether the use of hashtags supports the view of Twitter as an echo chamber. To answer this question, evidence from research questions RQ1 to RQ4 was examined, and further analysis of hashtag usage was carried out. When examining cross-usage of hashtags between Group 1, Group 2 and Group 3, we can see that Group 1 used anti-hashtags 22 times and Group 3 pro-hashtags 11 times, which clearly indicates that echo chambers exist between these two groups. Group 2, on the other hand, used more pro-hashtags (156 times) compared to anti-hashtags (75 times). To maintain its neutral position, the media did not seem to use hashtags with strong personal inferences too much. For example, the most frequently used anti-hashtags in Group 2 are #communalviolence (11 times), #delhiriots2020 (28 times), and #CAAprotest (11 times). The names of these hashtags are named by CAA political events. The most frequently used pro-hashtags in Group 2 are #bjp (26 times), #caa (25 times), and #CAA_NRC (23 times). The most frequently used hashtags in Group 2 have the same characteristics.

Table 2: Proportion of different group accounts using hashtags

	Group 1 Official Party Accounts	Group 2 News Media Accounts	Group 3 Muslim Group Accounts
Pro-CAA hashtags	19.80%	34.60%	2.30%
Anti-CAA hashtags	4.90%	14.00%	23.00%
Total number of pro- and anti- hashtags	24.70%	48.60%	25.30%
Hashtags not carrying pro- and anti-hashtag	75.3%	51.4%	74.7%

The percentages in table 2 indicate the proportion of pro-and anti-CAA hashtags used by each group. As seen in table 2, 24.70% of Group 1 tweets carried either pro- or anti-CAA hashtag with rest, 75.3% of tweets not carrying any specific label. In Group two, pro- and anti-CAA hashtags were used in 48.6% of the tweets which is a highest number of all three groups., For Group 3, if pro- and anti-hashtags were used 25.3%, it means that 74.7% in Group 3 did not carry pro- or anti-hashtags. It is highly likely that the media accounts would use both pro-CAA as well as anti-CAA hashtags. The media accounts used around 18 hashtags and the usage was 48.6%. The main reason behind such grounds is the fact that the media is seemingly taking a neutral stand and not favouring one particular side of the argument. Some commonly used hashtags from both ends by the different media groups include #CAA_NRC, #delhiviolence, #delhiriots2020, #bjpfails, #Jamiamiliaislamia and others. The groups that favoured the use of selected hashtags comprised several different official accounts to promote the conversations on a defined subject.

As Gillani et al.'s (2018) suggests, the tendency to surround ourselves with others who share our thoughts and opinions, i.e., homophily, can be observed in the ways digital spheres are used in a contemporary context. Through the analysis of the frequency (Table 2) with which the hashtags

were used by the opposing groups, it can be identified that there are interchangeable notions for which the different hashtags work on platforms like Twitter.

The hashtag #NRC_CAA_Protest was used by the groups that do not support the CAA and the formation of the NRC under the application of the Bill. Twitter users across the world used the hashtag to express their feelings against the CAA. The official handle of *Heritage Times* on Twitter i.e., @HeritageTimesIN focused on bringing forth the reasons of protest against the CAA and NRC by extracting historical notions and information on the legal status of the Indian citizens. The hashtag was popularised by the group through its constant use in all the tweets that had a direct or an indirect relationship with the protest.

Apart from that, it is clearly visible that there is only a small chance that the anti-CAA hashtag is used by Group 1 with only 4.9% tweets present. The most anti-CAA hashtags have been used by Group 3 i.e., the Muslim group. The percentage use of anti-CAA hashtags is about 23%, which is considerably higher than the frequency of using a pro-CAA hashtag. Through Table 2 it can be concluded that there is an existence of political polarisation and echo chambers related to Group 1 and Group 3.

The outcome of such platforms and engagement of like-minded individuals on these platforms is the build-up of echo chambers that are as harmful as they are beneficial in nature. Gillani et al. (2018) have stated that the possible degradation of quality, safety and understanding is linked directly with the unnecessary political polarisation that happens online. The presence of hashtags like #MuslimsOfIndia and #communalviolence are examples of the negative impact of echo chambers on Twitter. It is possible that the lack of detailed information sharing affects the overall mindset of the individuals involved in a negative manner.

In summary, this thesis finds evidence that Twitter functions as an echo chamber, to an extent. RQ1 and RQ2 provide some evidence that echo chambers function outside Twitter and can be carried over to Twitter. As shown, the anti- and pro-CAA Bill sentiments were repeated by the supporting and opposing groups in speeches and articles, and then on Twitter. RQ3 identified the pro-CAA group accounts. Official accounts had a higher percentage of pro-CAA hashtags. RQ4 shows a similar result wherein the anti-CAA group accounts (Muslim group accounts) show a higher percentage of using anti-CAA hashtags. RQ5 is a conclusion question that answers the main aim of this study. Media accounts used hashtags representing both perspectives. Media accounts

showed their enthusiasm on the debate of the CAA itself – the echo chamber did not exist on those media accounts. Media, by their nature, is supposed to be neutral. Although Group 1 and Group 3 used hashtags of some opponents, this represents only a small percentage. The findings from the five research questions lead to the conclusion that each group has its opinions that are expressed in speeches as well as through numerous tweets. The aim of understanding and concluding that digital platforms can be observed as echo chambers is met through the analysis of the hashtags used by different individuals in the context of CAA discourse – both against and in favour. The three groups, i.e., pro-CAA group, anti-CAA group and the media group, have been found to have significant use of different hashtags in respective manners. The media groups showcase neutrality due to their presentation of both sides of the argument. The arguments that occurred over Twitter have also been identified and therefore added to the findings section to conclude what happens using the digital sphere. The use of Twitter as a digital sphere where the preferences and views are clearly expressed leads to evidence that the platform is used as an echo chamber with groups expressing their preferred opinions through the use of tweets. The polarisation of views is identified through the extraction of the key arguments from the documents analysed. Finally, the findings suggest that Twitter acts as an echo chamber and supports the polarisation of views.

6. DISCUSSION

This chapter discusses the aim and results of the thesis, and it provides analysis in the context of key theoretical concepts of the thesis. It compares findings to other studies featured in the literature review, and discusses the significance of the research.

The aim of this thesis was to explore whether microblogging site Twitter functions as an echo chamber. By using concepts of the public sphere and the digital public sphere, it also examined whether echo chambers exist outside of Twitter, and whether polarised views are carried from the public sphere to the digital public sphere. The thesis used the Citizenship Amendment Act (CAA) protests in India as a case study, and a document analysis and hashtag content analysis were used to research the issue. The findings of the thesis lend support for the view that Twitter, to an extent, functions as an echo chamber. However, the echo chambers also exist outside Twitter, and they can be carried over to Twitter. Therefore, a question arises as to how the echo chambers are formed in the public sphere and in the digital public sphere as echo chambers do not seem to be just a phenomenon for the Internet or social media platforms such as Twitter.

6.1. Evidence of the echo chamber effect off and on Twitter

The findings of this thesis suggest that different groups analysed in the thesis mainly support their own views on Twitter. As the results show, Group 1, the official party, mainly used pro-CAA hashtags (which is not surprising as the party was the one to introduce the CAA Bill). Muslim groups mostly used anti-CAA hashtags on Twitter. The findings show that the official party supported the bill outside Twitter as seen in analysis of the speeches delivered by Prime Minister Modi in the public sphere. He also repeated his pro-CAA views on Twitter, echoing the same sentiments in the digital public sphere. Similarly, the views of Muslim groups on the traditional media platforms were negative towards the CAA Bill. This finding suggests that echo chambers do not just exist on Twitter, but that they also exist outside it, and that the polarisation of views happens in both public spheres.

As discussed, Habermas (1989) sees the public sphere as a place where people can come together freely to discuss issues of importance, where various dialogues can be had, and where public opinion can be formed. While the media offers a forum for public debate and public opinion formation, it can also be manipulated and influenced by powerful groups, such as advocacy groups, and it can allow space for polarisation of views. While the public sphere is open to everyone for the purposes of debate, it is in fact influenced by advocacy groups, and it can be used for propaganda. It can therefore be argued that the formation of free opinion in the public sphere, and in traditional media, is compromised.

The digital public sphere has been considered as an extension of the traditional public sphere, which is fundamental for the operation of modern democracies (Schäfer, 2015). It has been described as a sphere of communication that is supported by digital platforms where there is freedom of participation and the discussion proceedings are visible to the public (Schäfer, 2015). Just like the traditional notion of the public sphere, the digital public sphere also enables the facilitation and participation of citizens involved in debates on social and political issues. The digital public sphere allows the public to directly express their opinions on social media platforms instead of expressing them via traditional media such as newspapers and radio.

Through this, we can see that people actively participate in political topics and demonstrate their views on political events on the Internet and social media platforms. Governments are increasingly involved in Twitter communication to improve their political authority. Therefore, the relational distance between the state and the people in the digital public sphere has been shortened. For example, in India, Twitter is increasingly used as a communication tool by the government, politicians and advocacy groups. The India government uses Twitter to promote its policies and ideas. In 2019, the official account @BJP4India of the Bharatiya Janata Party announced on Twitter that the Citizenship Amendment Act was officially passed. When India's riots against the CAA occurred, Prime Minister Narendra Modi (@narendramodi), of the Bharatiya Janata Party, sent tweets to urge everyone to stop the riots; he further demonstrated the necessity of the CAA. In the case of Modi, the Prime Minister used Twitter to enforce his and his party's views, forming an echo chamber around him and his policies.

The concept of the echo chamber was proposed by Sunstein in 2008 his book *Information Utopia: – How Many Minds Produce Knowledge*. According to Sunstein (2008), people are selective in

their communication, and they receive information that they find interesting, understand and remember. People actively filter other information out. In other words, people are likely to create a closed environment for themselves in the information echo chamber. The social media platforms enable people to comment, like and share content they are interested, and they may share these with the people who they know or who have similar views. Once people are in such an echo chamber, it will be difficult to accept heterogeneous information and different views, which may hinder communication between people or groups who have different views and opinions.

The findings of this thesis propose that social media platforms can enforce polarisation of views and negative effects of an echo chamber. As the results show, pro-CAA and anti-CAA groups use of opposite hashtags is limited (as seen in Table 2). The official party group uses most frequently pro-CAA hashtags, and Muslim group accounts anti-hashtags. Sunstein (2018) argues that the media environment suppresses the learning motivation through group consensus and achieves unity through forcing consensus (Sunstein, 2018). When people are trapped in an echo chamber, they choose content that conforms to their world view, and this may intensify prejudices and disagreements.

The findings of the thesis confirm that, to an extent, Twitter functions as an echo chamber contrasting ideals of the public sphere and the digital public sphere. As discussed, the digital public sphere assumes that people can freely and openly express multiple opinions and they can participate in debates, and Twitter does offer that opportunity to its users. Twitter users can connect across borders, and they can easily receive the latest information on politics, the economy, military, commerce, technology, entertainment, culture, etc. via the platform. For Habermas (1974), the public sphere gives the public the freedom to participate in public debates and opinion formation as long as they want to. Habermas (1989) proposes that coffee shops in the early 18th century were a medium for the formation of a public sphere where participants were of equal standing. Twitter can be seen as having a similar role as it provides users with a public space to express their opinions. Freedom of speech on Twitter is not restricted to any particular race or class. Webster (2015) believes that people have a wide range of choices of selection in the media environment. As seen in this thesis, in India, Twitter is open to different groups for debate, and these groups are able to express their views freely and openly. As demonstrated, the Prime Minister of India has been able to support the CAA on Twitter. At the same time, Muslim groups have been able to post

anti-CAA opinions on Twitter. So, in this regard, Twitter can be seen functioning as the public sphere or its extension, the digital public sphere.

As discussed, the roles and needs users have on Twitter differ. For example, India's official party is asking the public to accept the CAA and to stop resistance against it. In contrast, the Muslim community is trying to prevent the implementation of the CAA. Hence, their views are polarised.

To conclude, echo chambers can exist both on and off Twitter. Users can easily be trapped in an echo chamber and only see similar opinions to theirs. Due to the asymmetry of the information received by users, the user's prejudice may deepen, and political polarisation may occur.

6.2. Findings offer support to earlier studies

The findings of this thesis offer some support to the earlier academic studies about echo chambers on and off Twitter (Dubois & Blank, 2018; Garimella et al., 2018; Jamieson & Cappella, 2008; Krasodonski-Jones, 2017; Williams et al., 2015). On the other hand, the thesis disagrees with some views such as those offered by Garrett (2009). He believes that social media is a diverse platform, and that people exaggerate political polarisation and the echo chamber effect.

In their study, Jamieson and Cappella (2008) found evidence of echo chambers in the public sphere. They examined how Rush Limbaugh's radio talk show, Fox News, and the editorial page of *The Wall Street Journal* promoted Ronald Reagan's conservatism. Jamieson and Cappella (2008) found that these media platforms were creating an echo chamber for conservatives as they offered them a space to reinforce their political convictions and ideological values.

My thesis also found evidence of polarised views outside of Twitter, in the public sphere, which supports the findings of Jamieson and Cappella. As the thesis found, the speeches of Indian Prime Minister Narendra Modi clearly showed that Modi was using traditional media to enforce his and his followers pro-CAA arguments. Modi's speeches offered an opportunity for like-minded citizens to deepen their pre-existing views, therefore fostering political polarisation. The media outlet *The Milli Gazette*, which aired views of the Muslim communities, published an article against the CAA. It raised concerns about the lack of impartiality of the CAA and the problem of

racial discrimination in the CAA. *The Milli Gazette* argued that the implementation of CAA will result in significant negative outcomes (*The Milli Gazette*, 2020). Both pro-CAA and anti-CAA groups used media to strengthen their political positions, forming pro-CAA and anti-CAA echo chambers. This formation of echo chambers and polarised views can threaten democratic deliberation and discourse (Jamieson & Cappella, 2008).

Several academic studies have found some evidence of echo chambers on Twitter (Dubois & Blank, 2018; Garimella et al., 2018; Krasodonski-Jones, 2017). Garimella et al. (2018) studied echo chambers and political discourse on Twitter. They closely examined the relationship between content and the Internet, and the different roles of users. The key finding is that echo chambers do exist in political discussions (Garimella et al., 2018.) In his study, Krasodonski-Jones examined the tweeting of four political parties in the UK. He found that “people with the same party-political affiliations tend to share news on Twitter from sites that are ideologically consistent with their party-political affiliation” (2017, p. 8). Additionally, he found that “groups are more likely to interact with other groups who are ideologically aligned with them” (Krasodonski-Jones, 2017, p. 8). My findings of my thesis align with his – as demonstrated by the tweets of the ruling party and Muslim groups – alignment related to affiliations is clear.

The findings also support those of Dubois and Blank’s (2018) study. Dubois and Blank conducted a survey of adults in the UK to examine if echo chambers exist on Twitter. The key finding is that echo chambers only exist when people have a single choice of social media platform. They found that Twitter is polarised, stating that “Twitter may be a place where individuals talk to people with the same political opinions” (Dubois & Blank, 2018, p. 741). Personal preference of political information and media platform will determine whether people will be part of an echo chamber. But diverse media choice will not lead to the echo chamber effect. They also confirmed that the echo chamber may not only exist on Twitter but also other social media platforms. As this thesis found, the official party and Muslim groups used mainly hashtags supporting their own beliefs, and cross-usage of opposing hashtags was limited. People who hold the same views gathered together to form an echo chamber.

This thesis contributes to the knowledge by confirming some earlier results about echo chambers (Dubois & Blank, 2018; Garimella et al., 2018; Jamieson & Cappella, 2008; Krasodonski-Jones, 2017). In addition, it finds that echo chambers exist both on and off Twitter, and political

polarisation that occurs in the public sphere can also occur in the digital public sphere such as Twitter. This thesis also suggests that media is no longer a simple medium for spreading news, but it also has political intentions such as in the example of the Indian government promoting the implementation of the CAA. Like-minded people seem willing to only accept similar political information, thus, different echo chambers are formed. The existence of the echo chamber then often accelerates political polarisation as also seen in this thesis.

However, Williams et al. (2015) propose that echo chambers do exist on Twitter despite the fact that Twitter is an open platform for multiple different views. Twitter does allow everyone who has signed up for an account to express their views freely as long as they do not violate its rules. Non-registered users can read public tweets, while registered users have the opportunity to post tweets on Twitter. Many features of Twitter allow users to quickly obtain the latest information. From this perspective, Twitter is an open platform. But at the same time, echo chambers also exist on Twitter. Williams et al. (2015) analysed Twitter's online communication based on the topic of climate change. They found that there is an echo chamber and a high degree of polarisation in attitude, which is consistent with the prejudice of self-preference (Williams et al., 2015). However, they also identified communities with mixed attitudes in which users often encounter a variety of views, and can hardly see polarised views (Williams et al., 2015). Similarly, we found echo chambers related to the official party accounts and Muslim group accounts, but news media accounts used both pro-CAA hashtags and anti-CAA hashtags to spread more news. Thus, this thesis offers similar results to Williams et al. (2015).

Finally, the findings of the thesis differ from some other earlier studies (Garrett, 2009). Garrett (2009) collected web-administered behaviour from the readership of two partisan online news sites (AlterNet, WorldNetDaily) to study what role political attitude plays in shaping what users see and also ignore. Does online political communication herald an "echo chamber" effect, which may lead to political polarisation and social polarisation? Garrett (2009) stated that "there is little evidence that [readers] will use the Internet to create echo chambers" (p. 279). Garrett suggests that readers will not reject news that is contrary to their opinions. This contrasts with findings of this thesis. Readers choose the information they want to see according to their own preferences, which can better prove that the reader is already in an echo chamber. When individuals receive information, they are more inclined to accept the information that is consistent with their own ideas

and ignore the information that is inconsistent with self-preference. Therefore, when people meet the information provided by the media, they will choose information that conforms to their own thoughts, beliefs, and attitudes, and avoid information that does not confirm to their own perspectives. The basis for the political polarisation between official party accounts and Muslim group accounts is that they have different political preferences on the CAA.

In conclusion, this thesis and some earlier studies (Dubois & Blank, 2018; Garimella et al., 2018; Jamieson & Cappella, 2008; Krasodonski-Jones, 2017) propose that Twitter cannot be regarded as a completely free and equal platform because some voices with similar opinions will be repeated continuously. This practice is consistent with the definition of the echo chamber. Most people in the echo chamber think that distortions they see are the truth. People are more likely to accept to the information consistent with their own ideas. The gathering of homogeneity makes people less likely to accept diverse voices. The existence of the echo chamber has undoubtedly brought challenges to the comprehensive understanding of correct information and policies. In addition, the existence of the echo chamber fosters the process of political polarisation. Polarised social media users seem to have no interest in getting in touch with content that is contrary to their own ideas. Sometimes, when they do interact with the opposite ideas, users may insist on their position more stubbornly. Therefore, as Dubois and Blank (2018) asserted, people should access to diverse social media platforms to get more information to more likely reduce the chance of echo chambers.

7. CONCLUSION

This thesis found some evidence of echo chambers on Twitter. It found that pro- and against-CAA groups mainly used hashtags to support their own views, and cross-usage of opposition hashtags was limited. The findings also suggest that echo chambers do not exist only on social media platforms, but they can also be formed outside such spaces, in the public sphere and via traditional media.

Conducting this kind of research may help our understanding of echo chambers and how they are formed in the digital public sphere such as Twitter.

However, of the study has also limitations. For example, the political system in India is complex and it is not possible to analyse this context fully in this kind of study. Furthermore, the sample size of the study is small, and it would be useful to research echo chambers with much larger data sets. The sample of document analysis in this thesis is small with only three documents analysed to research views of the CAA Bill outside of Twitter, and three tweets were compared to these documents to analyse if the views expressed outside of Twitter were carried onto the platform. The sample of hashtags analysed is also relatively low compared to other large-scale studies. For this kind of study, it is not possible to analyse large number of tweets without sophisticated computer-assisted systems, which can be expensive. The research is also limited to one country and one specific issue and therefore care should be taken in generalising the results. In future studies, it would be useful to analyse use of hashtags in multiple countries to validate such findings. In this thesis, only use of hashtags was researched. It is possible that analysing tweets in more detail or analysing their content would provide further interesting findings.

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