

**Mediated Representations of Echo Chambers: A Critical  
Discourse Analysis of its use in headlines**

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## Abstract

This study seeks to understand the use of ‘echo chamber’ as a term in headlines by the news media since the 2016 United States presidential elections. Headlines from across the ideological spectrum consisting of thirteen news outlets were sampled to understand the way ‘echo chamber’ was used. A critical discourse analysis of these headlines was done based on the political leanings of the outlets which were sourced from the news aggregator Allsides.com. A working definition of the term was suggested due to the variance or lack of definitions presented in previous literature. This led to an understanding of ‘echo chamber’ as a combination of both human tendency of homophily and selective exposure through filter bubbles online. This delimits the phenomenon, as per the prevalent understanding, from online-only or online induced to one that is widespread. Headlines from news media outlets from the US were sampled and critical discourse analysis was used to reveal the methods used by their producers. The analysis of the sample reveals the metaphorical use of the term as a modern way of labelling phenomenon like groupthink or tribalism, which have been in existence forever.

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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.

Signature

21 January 2020

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## 1. Introduction

This study is aimed at understanding the use of ‘echo chamber’ in headlines by the U.S media since the 2016 US presidential elections. The term ‘echo chamber’ was in common use before the aforementioned elections, but its use in the media increased during and after 2016 (*Google Trends*, n.d.). As will be evident from the literature review that follows, the term has not been properly defined and hence a definition has been presented. In simple terms, echo chambers is a catchall term to signify groups that are formed based on agreement on beliefs relating to politics, culture or technology. The term does not prove the validity or existence of the said groups. An example of these groups in the US context would be the self-identified Alt-Right.

The terms used in this study are fairly new, hence an understanding of how they came into common usage is vital. Especially in the case of ‘echo chamber’, the term may have been in use since 1842 (*Merriam-Webster*, n.d.), but its use in the media is atypical. ‘Echo chamber’ is used in the media to denote people in closed groups who only identify with each other’s views and reject any other. It is analogous to the proverb ‘*birds of a feather flock together*’, which is claimed to have first appeared in Plato’s *The Republic* (Martin, n.d.; *The Internet Classics Archive*, n.d.). The term then is used as a label for groups. How the term is used to accuse groups or to generalise group behaviour forms the basis of this study. The significance of this term and its usage is within the changing landscape of the media, both news and social media. As more people get access to the internet, increasingly they find themselves connected with confirming and opposing views. Through a combination of natural tendencies of confirmation (homophily), algorithmic personalisations (filter bubbles) and biased news media outlets (content), it may be easier and more comfortable for the user to create positive feedback loops that reinforce their beliefs.

The effects of such ‘groupthink’ have been noted in the election of Donald Trump as the 44<sup>th</sup> President of the United States of America (US) and the ‘Brexit’ referendum in the United Kingdom (UK). The problem of ‘echo chambers’ is a complex issue, which links politics, news and the internet. By addressing the consumption of news on social media and the role of the news media in maintaining hegemony, this study attempts to reveal the methods used by the news media to target groups, in turn revealing their ideologies. This study uses Critical Discourse Analysis (CDA) to examine the use of ‘echo chambers’ by the news media, especially in headlines, to signify groups. CDA is a linguistic tool that is useful in revealing ideologies that are inherent in discourse (Fairclough, 1992).

The internet, with more than four billion users (*Internet World Stats*, n.d.), has changed the way they communicate all over the world. The ease of access and the interactivity needs to be

assessed under the light of recent events related to the spread of misinformation, hate speech and tribalism. Issues like echo chambers and fake news have been cautioned in the past (Sunstein, 2001) and this section will provide an overview of that. The following sections will look at the state of journalism around the rise of the internet and how it has evolved around the aspects of business and competition from the freely available content on the internet.

## 1.1 The Internet

After the setback around the turn of the millennium, the internet has grown to become a class of utility like electricity and gas. To an extent that the act of doing a web search is synonymous with the name of the website most popular for the purpose, that is *Google*. The end of the ‘dot-com bubble’ gave rise to what is now known as Web 2.0. Fuchs (2017) argues Web 2.0 was not an actual thing that was designed, rather a marketing term applied to a loose set of features that arose circa 2004-2006 which allowed for a greater generation of user content – what he also refers to as the ‘read-write web’. Web 2.0 offered users a place to contribute their opinions and in turn, made the web more interactive. The web offered users a place where they could interact more freely and openly, and they could comment or contribute too. It was just a matter of how they would discover the content they like. This gave rise to a new way people searched the web. Google.com, started by Larry Page and Sergey Brin, two PhD students from Stanford University, provided algorithm-based search results that claimed to be vastly superior. Initially, this algorithm was based on page ranks, where web pages were ranked based on how many places they were linked to. This was later developed in a way where search results were tied to individual users through their personal accounts, which meant that a search with the same words may not be the same for different users. Every search on Google was personalised to the individual users based on their web history. Personalisation, which means that content served to any two individuals may not be the same, is at the heart of the problem in this study.

The rise in smartphone usage and the ease of access to the internet also gave more access to companies like Google and Facebook deeper access to user data. Smartphones became mainstream after the launch of the first iPhone in 2007 and changed online content consumption again. The Internet went from being a mostly desktop driven activity to a mobile one. The users had access to all the content available online literally at their fingertips and any time they wanted. With advances in mobile internet like 3G and 4G, it became easier to have continuous access. The application-based ecosystem evolved on the two dominant platforms, namely Apple and Android, to the extent that advertising spending also skewed towards mobile (Mitchell et al., 2016). It became easier not only to stay in touch but also to share everything ranging from



pictures of cat and food to whatever was considered news. The ease of sharing made the act itself more spontaneous and decreased the motivation to verify the authenticity of the shared material. This became another avenue where Google, Facebook and others could collect more user data like location history. These companies would not only know what the users want but also where they want it, yet another step towards access to more user data in the name of personalisation.

Now users would turn to the web for anything they did not know and get results based on their web history, demographics and location. This was a revolutionary step at the time. Google heralded the way users interact with the web, which laid the groundwork for companies like Facebook, Twitter and Instagram. Algorithm became a buzzword among the technology start-ups coming out of the US at the time. The start-up culture was built on the unique algorithms that each company brought to the market. At the centre of all these algorithms was personalisation, not only to serve users personalised content but also to serve targeted advertisements. Privacy activists warned against using such platforms and predicted the side effects (Stallman, 2005), but convenience trumped ethics. Internet became the easiest way to connect with everyone across the globe. This hyper-connectedness necessitated the advent of platforms like Facebook and a new category in the media, social media. Facebook excelled in providing the platform for the users to connect with people from their past and present, it also served targeted advertisements to its users. The revenue model for most of these platforms turned out to be free to use but with personalised advertisements served. Most of these companies were not successful in terms of revenue to start with but were propelled based on how many users wanted to use the platform. Higher the number of users, more lucrative for advertisements and hence more advertisements on the platform. This explains how an application like Whatsapp has been able to survive for more than a decade without making any profit. Facebook bought Whatsapp in 2014 for an unprecedented 19 billion dollars for access to half-a-billion users, because Facebook's business model is not the platform alone. The platform acts as a place where these technology giants can harvest user data and then sell it for the sake of advertisements. Access to such huge amounts of user data interested governments for surveillance in the name of security. This data was just ripe for exploiting.

One example of this exploitation, commonly known as data mining, was observed in the case of the Cambridge Analytica revelations. In 2014, it was revealed that Facebook gave unfettered access to the private data of 87 million users to Cambridge Analytica, a data firm (Davies, 2015). The data gathered by the firm was used to influence the voters during the 2016 US presidential elections and possibly impacted the outcome (Isaak & Hanna, 2018). This

prompted debates about the public's right to privacy in today's age of hyperconnectivity (Kosinski et al, 2014). This incident also pushed a curiosity about the possible connection between Cambridge Analytica and Russian interference in those elections (Lapowsky, 2019). The United Kingdom's decision to leave the European Union, commonly known as Brexit, is also said to be influenced by user activity on social media (Hall, Tinati & Jennings, 2018). These events only proved that privacy advocates like Richard Stallman were right in being suspicious of the online media with user data. Brexit and 2016 US presidential elections also form a part of the global move towards right-wing politics and populism.

## 1.2 Journalism

The news was in a transitive phase even before social media came into relevance. Newspapers used to be published once a day and Television news was delivered in thirty or sixty-minute broadcast, with special cases for national emergencies. Even on the radio, the news was broadcast through scheduled timings. The 24/7 news cycle started with the arrival of cable television (Silvia, 2001). This presented challenges of faster production and stories that required constant updates. This together with increased competition and profit-driven corporate ownership led to a decline in journalistic ethics and standards (Weaver et al., 2006). The press moved away from their old-fashioned principles of depth, proportion, relevance and verification to opinion, entertainment and sensationalism (Weaver et al., 2006). It was predicted that this degradation in journalism would lead to lesser attention to the validity of a statement before it reached the public sphere (Weaver et al., 2006). In many ways, this foreshadowing has led to what we now as a form of "fake news". Just before the arrival of the internet as we know today, journalism was going through a crisis.

In this age of globalisation, news is much more parochial than in the days when communications from abroad ticked slowly across the world by telegraph. And here is another [paradox]: that in this information age, newspapers which used to be full of politics and economics are thick with stars and sport.

(The Economist, 4 July 1998: 13 quoted in Allan, 2010 p. 250)

The news was being served for free online with little to no revenue, this resulted in a decline in profits for the newspapers, many of whom were facing bankruptcy across developed countries (Chapman & Nuttall, 2011). Similarly, other paradoxes were facing the journalism industry. For one, the cost of production of information is high but the availability is abundant (Chapman & Nuttall, 2011). This left the media groups in a difficult position, as in today's age information is expected to be available freely and free of cost, forcing some organisations to put paywalls in

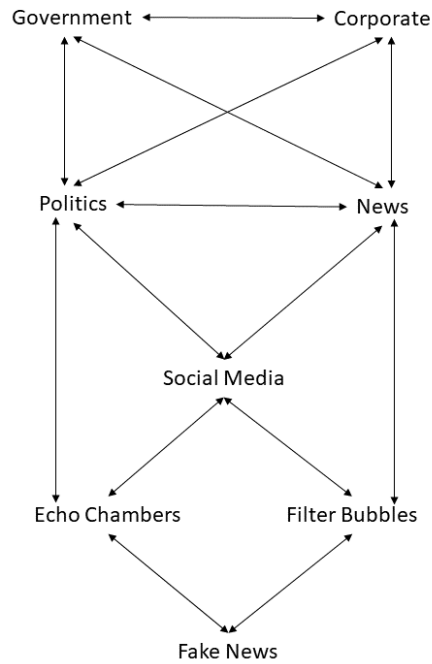
front of their websites as a source of revenue. The expectation that high-quality journalism should be available at no cost has had an adverse effect, where the journalistic standards are at risk. Advertisements also play a role in journalism as a source of revenue, in turn dictating the way content is presented. In the time of newspapers, organisations would pay for advertisements based on circulation numbers in bulk, but in this age, advertisers pay by the click (Chapman & Nuttall, 2011). In the search for more clicks, news outlets have had to tailor headlines to appeal to users, which is now commonly known as clickbait headlines (Waldman, 2014). The onset of social media and the freely available content has made journalism an easy target for society, it has had to adapt to numerous challenges, and adapting to social media has required it to play the rules of the platform. Personalisation and localisation have also become a differentiating factor in journalism (Chapman & Nuttall, 2011). In doing so, both social media and journalism have been complicit of being extremely parochial and targeted. To serve a growing community and to survive, the news has had to turn to online tools such as search engine optimisations (SEOs), which dictates that content must be tailored in a way for it to appear higher on search results and trending feeds. This is where headlines play a major part as they appear to be the link to the rest of the article. A complex web of personalisation, SEOs and clickbait headlines pushes the content towards more of what sells through clicks rather than accuracy and depth of knowledge. The personalisation happening on both the platform (social media) and in the content led to a phenomenon identified by Eli Pariser as a filter bubble. Pariser (2011) defines a filter bubble as

the intellectual isolation that can occur when websites make use of algorithms to selectively assume the information a user would want to see and then give information to the user according to this assumption ... A filter bubble, therefore, can cause users to get significantly less contact with contradicting viewpoints, causing the user to become intellectually isolated.... (*What Is a Filter Bubble?*, n.d.)

This kind of isolation may shift users away from social reality. As Pariser claimed after the events of the 2016 US elections and Brexit, “If you only see posts from folks who are like you, you’re going to be surprised when someone very unlike you wins the presidency” (The Guardian, 2017). When the news is filtered through algorithms based on your history online, then the filters follow the outline of the person they are serving to. Objectivity and claims of reality do not compute in algorithm-based habits. Further tapering of content online happens when filter bubbles are combined with echo chambers. Echo chambers are not necessarily a new phenomenon, but they have been amplified due to the conditions relating to social media and the news. Echo chambers, previously mostly related to the news media, where ideological silos

were created based on the political preference of the reader. The claims to the existence of echo chambers have hinged upon the assumption that all news is biased. If one were to only get news from one side of the political spectrum, it would severely limit the objectivity of the reader. Unlike filter bubbles, echo chambers are not induced through artificial intelligence, rather from the personal preference or the ideological slant of the individual. This combined with social media's emphasis on sharing and interaction elevates echo chambers to previously unknown intensities.

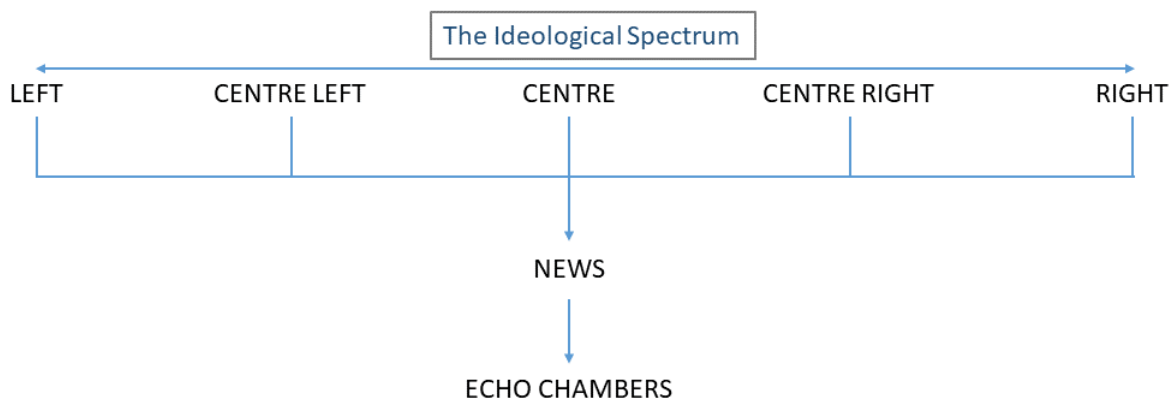
The subject of echo chambers took the forefront of public conscience since the 2016 US presidential elections. The awareness of these echo chambers was non-existent until the rude shock of the election results. Suddenly, we need to be aware of our own biases, especially on the web. The web was supposed to be a bastion for free and open speech. It came with the promise of heralding a great future, the one where everyone had a voice. Now we are in that future and have possibly started to understand the side-effects of this free for all platform. The web did give its users a voice but it also opened them to manipulation by external actors and personal preferences. Whether these echo chambers were created by other influences, like Russia and Cambridge Analytica, or they were merely manipulated by the already existing divide in political thought is open for debate. One thing is certain, awareness is key. The media field stands at an interesting juncture, where it is caught between the financial burdens and public responsibility. It is not just up to the media, but all those who consider themselves the purveyors of the media field to address this issue of echo chambers, which have been created to divide the public this field serves. In this vein, the device that was meant to inform has been exploited. News has gone beyond information and entered the realms of influence. This is an unparalleled time where the world finds itself connected like never before. It is with this sense of responsibility this research seeks to find the self-awareness of the news industry of its shortcomings.



*Figure 1. Media-Politics Nexus (source: the author)*

Figure 1 is a representation of the media-politics nexus to illustrate the relationship between the various aspects of how the media is entangled with politics, corporate and itself. It is to present an idea of each of these elements stand in relationship with the other and how they affect and are affected by each other.

### 1.3 Conceptual Framework



*Figure 2. The Conceptual Framework (source: the author)*

Echo chambers, as a concept, exists because of ideology or beliefs. This is to say that a person belonging to an echo chamber will only subscribe to the beliefs of that echo chamber. In reality,

these echo chambers cannot be identified with such distinction as represented in Figure 2, simply because individuals do not make decisions based on an ideology even if they are fully aware of their biases. For example, someone might be anti-immigration, which is considered extreme right-wing and then the same person may choose to support gay rights, which is considered left-wing. This is the inherent drawback in classifying a section of the public in terms of ideology, even if it is self-identified. News outlets, on the other hand, have been categorised in terms of ideology by websites like Allsides.com. Allsides acts as a source of data and identification of the newspapers and their respective ideological slant for the purpose of this study. Their methodology for classification is explained in Chapter 3.2. This classification forms the basis of the study and hence has been represented in Figure 2. The aim is to study the variation in representations of echo chambers across the ideological spectrum and hence the articles used in this study will be identified as such based on the outlet they were published on, namely left, centre left, centre, centre-right and right. Because the decision to alter, publish or reject an article can be editorial or corporate, so the article has to fit the standards of the outlet on the matter. Sometimes these corporates are also associated with politicians, which preempts their biases even further. This is one aspect of the media-politics nexus which has been represented in Figure 1.

The biases held by outlets are depicted through their use of the language and hence Critical Discourse Analysis (CDA) as been identified as the method of choice for this study. CDA aims to examine the use of language and discourse to uncover power structures, tyranny and reasons for positivity (Fairclough, 1992).

#### 1.4 Statement of the Problem

As there is an increasing awareness of the problems related to becoming hyper-connected, media plays a huge role in enabling this interaction. Whether it is the social media or the news media, increasingly the idea of reality is mediated by these agencies. As more interactions become mediated, the role of the media in the construction of our reality needs to be evaluated. The human tendency to herd together with agreeable and like-minded people is one side of the story and looking for proof of the existence of echo chambers has proved to be problematic (Quattrociocchi et al., 2016). The other side, and arguably the more ominous one would be the role of the media. Trends like fake news are just a form of “old wine, new bottle”. Fake news can just as easily be described as rumour mongering or gossip. Echo chambers and filter bubbles are the underlying factors to be considered accountable for these trends. Echo chambers and the recent rise of populism have been considered a danger to democracy, so how the media

represents the issues may provide an interesting lens under which the aspects of echo chambers can be examined.

### 1.5 Research Question

This study follows an interpretive mode of inquiry into the subject of echo chambers. The evidence from studies about the existence of echo chambers is contentious, so it can be interpreted either way by journalists writing these articles as they pick and choose the side of the argument that suits them. And these interpretations are affected by editorial decisions and the corporate position, if any, associated with the outlet.

How is the term 'echo chambers' represented in headlines among the news outlets across the ideological spectrum?

The aim is, using CDA, to uncover how news outlets construct the arguments around echo chambers and what that tells us about these news outlets.

### 1.6 Significance of the Study

The purpose of this study is to focus on the journalism aspect of echo chambers and how it is represented by the medium. If it is assumed that echo chambers are being created through a preference of ideology over journalistic ethics, then this study will give a deeper understanding of the effects of such a preference. When politicians like Donald Trump delegitimize one outlet in preference for another, they create an atmosphere where these outlets have incentives to follow an ideology, whether for or against him. In an ideal world, the news should be without ideology and it should report rather than propagate. With the recent rise in populism around the world, the media's role needs to be investigated so that news outlets don't become puppets in the hands of zealots.

A critical discourse analysis of how the news outlets portray this side effect, unique to the media will inform us of the power of the media over setting the discourse for echo chambers. Similarly, it will also lay the groundwork for further research in the area of echo chambers and the accompanying effects.

### 1.7 Scope and limitations of the Study

This study is limited to the representations of echo chambers by news outlets in the US during the years 2017-2018. This period is chosen because it was immediately after the election of Donald Trump in late 2016. His election as the President of the US came as a surprise and hence the events leading up to the election have been dissected throughout countless research. In the media, fake news came out as the buzzword responsible for his elections. Fake news became the

2016 ‘Word of the Year’ (Hunt, 2018). Echo chambers and filter bubbles also became a part of the buzzword-worthy headlines. The study will also be limited to articles published in English. Since categorising news outlets based on ideology would be an enormous task, pre-existing categorisation as it appears on Allsides.com will be used. A total of ten articles will be used for the study across the ideological spectrum, the division of which is outlined in Chapter 3.2. Although fake news and filter bubbles feature prominently in this thesis, they are not the object of this study. They act as the accompanying cast to the main actor – echo chambers. It will not be feasible to study echo chambers without examining the role of these effects.



## 2. Literature Review

During the distinct phases of change in history around the world, a series of events came together to make an everlasting impact on the status quo. Cauter (1988) identifies the string of student protests in 1968 against the Vietnam War and the governance in countries like the United States, Italy, France and Germany as a precursor to the growth of the liberal left across the globe. Likewise, around the end of Cold-War, the year 1989 saw the fall of the Berlin Wall and eventually a German reunification. The dissolution of the Eastern Bloc followed soon. This year was seen as the triumph of liberal democratic capitalism, the end of ideology and the start of globalisation (Fukuyama, 1992). Similarly, 2016 may be identified as a year standing on the cusp of change. The surprising election of Donald Trump as the US President and the United Kingdom's decision, through a referendum, to leave the European Union certainly make it a noteworthy year. This study is situated as a post-study of the effects, possibly acting as a precursor, that lead to these developments. This chapter, specifically, will provide a deeper contextual understanding within which this study is situated. It acts as an extension of the background provided in Chapter 1.1.

After the year 2000, the speed of development, especially of the internet and broadband technologies, brought about a hyper-connectivity across the globe (1.1). The outsourcing of jobs from the developed countries to developing countries and free trade agreements caused disenchantment among the working class (2.4), bringing them to a realisation that their way of life needed protection from an 'outsider'. Politicians from the right, in India, US and UK to name a few, caught on to this wave of disenchantment with liberal democratic policies. Social media acted as the perfect tool for these politicians to harness the growing disenchantment. Journalism and news (1.1.2) were in a transitive phase, which saw many of the old publishers perishing and the remaining few having to adjust to new realities. In the following passages, we will deal with first the relationship between the News and social media (1.1) and the role of media in the context of the growing populism (2.4) and then we will look at the effects like Echo Chambers (2.5) and Fake News (2.2). This is mostly done through a review of the literature in the related areas, to eventually position this study in context.

### 2.1 Defining Echo Chambers

The existence of echo chambers is deeply contested among scholars and academics (Adamic & Glance, 2005; An et al., 2014; Bakshy et al., 2015; Gilbert et al., 2009; Lawrence et al., 2010). While most attribute recent events as a consequence and basis for their research, there is a lack of consensus on defining the term of echo chambers, with the majority of research either

addressing the effects or the causes of echo chambers (Garimella et al., 2018; Jamieson & Cappella, 2008; Sunstein, 2001). As such, before the discussion on echo chambers, it would be beneficial to examine the attempted definitions to outline what makes an echo chamber.

Jamieson and Cappella (2008) address the issue of echo chambers in their book focused on Rush Limbaugh and the conservative media space. “The metaphor of an echo chamber captures the ways messages are amplified and reverberate through the conservative opinion media” (Jamieson & Cappella, 2008, p. 76). Although their definition emerges from tackling the effects of the conservative media space, it can be generalised to state that echo chambers may exist in other spaces as well. Cass Sunstein (2001) uses the term *echo chambers* to identify the human tendency of confirming or rejecting information through agreement or disagreement respectively, due to homophily (McPherson et al., 2001) and selective exposure (Frey, 1986; Sears & Freedman, 1967). This broader explanation is useful to categorise echo chambers as a human tendency rather than a commonly misconstrued result of technology proliferation. But both the descriptions either state the effect of echo chambers (Jamieson & Cappella, 2008) or the cause (Sunstein, 2001). There is no formal agreement on the definition of echo chambers and another attempt presented by Garimella et al. (2018) is that echo chambers “exist[s] if the political leaning of the content that users receive from the network agrees with that of the content they share” (p. 913). Again, this definition only addresses the cause, that is, how echo chambers are formed rather than what they are. These definitions address the disparate aspects of echo chambers that are important for this study.

As per Jamieson and Capella’s (2008) definition, it is identified that echo chambers are instrumental in amplifying and the reverberating of messages. Focussing on the conservative media space, they attribute an important aspect of the creation of echo chambers as the production of messages in the media. Further, they go on to state that through the process of repetition outlets such as Fox News and the editorial pages of *The Wall Street Journal*, not only amplify and reverberate, which is a form of echo, but also legitimise each other’s messages (Jamieson & Cappella, 2008). When this is combined with a lack of journalistic vigour in fact-checking and verification, it can lead to the spread of misinformation (Weaver et al., 2009). This tendency of the actors within the media space is responsible for creating media echo chambers, which form groups of news outlets that not only echo but legitimise each other’s views. This indicates the content produced by the media as the first foundation for the formation of echo chambers.

The human tendencies of homophily and selective exposure is the most important aspect in the creation and propagation of echo chambers. It is to state that the existence of echo chambers is a human attribute and not just induced through interactions with technology. This claim is supported by the numerous studies related to homophily (McPherson et al., 2001), going as far back as post-second world war (Loomis, 1946). Homophily as an idea denotes “the degree to which pairs of individuals who interact are similar with respect to certain attributes, such as beliefs, values, education, social status, etc.” (Rogers & Bhowmik, 1970, p. 526). This delimits homophily from the media and political sphere into a general concept which can occur in every sphere of social existence. More importantly, it ascribes homophily as a variable, where it can exist to a lesser or greater extent, based on context. Similarly, selective exposure research has also existed for a long time (Festinger, 1962; Olson et al., 2005) and can be attributed as a form of cognitive dissonance (Festinger, 1964). It is defined as “a process that occurs when people seek out information that supports their pre-existing viewpoints or decisions” (Sullivan, 2009, p. 466). This places the interface between an individual and the message within the same context of homophily, where the difference is in the interaction between individuals (homophily) and the interaction of an individual with the text (selective exposure). This makes humans who consume content based on homophily and selective exposure as the second foundation for the formation of echo chambers.

Lastly, Garimella et al. (2018), attribute the existence of echo chambers to an agreement between the user and the network. When addressing ‘network’, Garimella et al. refer to interactions on social media. This network can be equated to the concept of the *network* as referred to by Manuel Castell (Meikle, 2016). Castell’s *A Network Theory of Power* (2011) views society as structures consisting of networks. Castell’s usage of ‘network’ is based on the definition provided by Jan Van Dijk (2012), who identifies networks which “link every or part of this society (individuals, groups and organisations)” (p. 24). These networks affect and are affected by the creation of the network, the powers of the ones who create the network, those who can influence the network and those who are influenced by the network. In this respect, social media is just one of the networks within a larger information and communication technology (ICT) network and presents a platform for users to create their own networks of influence like groups and followers. How the larger networks (social media and ICT) influence and are influenced by the smaller networks (user groups) indicate the creation of a web of influence which can be interpreted as an echo chamber. As Meikle (2016) elaborates further

To share can be to separate and divide, and this is the original sense of the word in English – to cut something tangible into smaller portions to divide with others. But in

digital media, it can also be to copy and multiply. Copying is, of course, one of the most basic intrinsic functions in any general-purpose computer – CTRL + C. And it pairs naturally with paste – CTRL + V – which means that the act of copying and sharing intangible items becomes second nature (p. 34).

Through the act of sharing, which is an inherent aspect of interactions on social media, there is an attempt by the users to influence or be influenced. There is an intention to create a network of influence, which when combined with political agreement or homophily can lead to the creation of echo chambers. It should not be mistaken that these networks of influence only exist on and because of social media networks (Gentzkow & Shapiro, 2011). In their research, Gentzkow and Shapiro (2011) found evidence of lower ideological segregation in online networks as compared to offline or face-to-face networks (groups). This further highlights the human role in creating these networks to influence one another, whereas the wider network in the form of social media enables the formation of these networks within a network. These networks form the last foundation for the creation of echo chambers.

In summary, the three major foundations for the creation of echo chambers are biased media spaces that prefer one-sided narratives, the human tendency of selective exposure through homophily and networks of influence (online and offline). Based on the three foundations presented above, echo chambers can, therefore, be defined as networks that create a sphere of influence through agreement. *Networks*, as per Castell's (2011) usage, refers to a group that is not just limited to online networks. These networks can be and are created by individuals or organisations in power. They inherit power for their creators and further power is exercised through influence. Hence the proliferation of echo chambers has vested interests that can be exercised by actors or organisations who have the power to influence these networks. *Agreement* refers to the human tendency for homophily and selective exposure. Through this 'sphere of influence' within a network, echoing can occur through agreement, amplification and repetition, thus explaining the effect of echo chambers.

The curiosity around echo chambers exists because of the supposed consequences of being in one, scholars point out what these could be. Through selective exposure to only agreeable content, users can isolate themselves into echo chambers (Tabrizi & Shakery, 2019). This can have a damaging effect on open-minded discussions and public discourse. Sunstein (2009) looks at historical periods of radicalisation such as the rise of fascism in the 1930s in Germany, student protests in 1960s in the US and genocide in 1994 in Rwanda, and ties it to the common thread of, what can be described as - echo chambers, indicating that they could lead to

more polarised views. “When people find themselves in groups of like-minded types, they are especially likely to move to extremes” (Sunstein, 2009, p. 2). This move to the extremes has been observed in the way political discourse has moved towards a populist style in countries such as the US, United Kingdom, India, Philippines, Venezuela among others (Mudde & Kaltwasser, 2017). Increasingly, the clustering of extremes based on ideology can make opposing views more intense and intolerant towards one another (Garrett & Resnick, 2011). This makes the political sphere very personal to followers to the extent where they feel compelled to defend their views and attack the opposing ones. Combined with the media echo chambers, this leads to individuals who do not agree on a “common reference point” because of the difference in the information received through the respective echo chambers (Resnick, 2011). If these common reference points are objects of social reality, then alternative ‘facts’ may corrode confidence in the respective versions, leading to beliefs in alternate social realities. Scholars identified the spread of misinformation through these echo chambers as a significant contributing factor in the creation and proliferation of alternate social realities (Jasny et al., 2015; Vicario et al., 2016). This misinformation in the age of online media is commonly known as ‘fake news’ (Allcott & Gentzkow, 2017). Lastly, Resnick (2011) also identifies that echo chambers may break society into enclaves that are polarised, as reflected in the debate around climate change (Gavin, 2018), Brexit (Chater, 2016), vaccination (Alter, 2019) and immigration (Hansard, 2018).

It is important to distinguish echo chambers from filter bubbles. It is a common misconception to see the two concepts as interchangeable, but they are distinct even if they share a relationship. Where echo chambers can be attributed to the human tendency of homophily and a form of exercising network power, filter bubbles arise purely through the algorithmic personalisation that occurs on modern search engines and social networks (Yom-Tov et al., 2014). Eli Pariser (2011) coined the term ‘filter bubbles’ to indicate the lack of exposure to opposing views that occurs due to personalised content online. Filter bubbles then, like echo chambers, are also a form of selective exposure but induced through the interaction with technology. In the end, they are both responsible for creating information silos and one augments the effect of the other by further limiting the access to opposing views. Another common misconception is that echo chambers have come into existence due to the filters of personalisation online. Attributing the existence of echo chambers to the proliferation of modern technologies can be seen as a form of technological determination, where it is easier to blame technology for the ill effects of human consumption than to accept the flaws that emerge from selective exposure (Fuchs, 2017).

Technological determinism is the idea of assigning powers to machines that they do not possess (Smith & Marx, 1994), such as the power of limiting their users into information bubbles or echo

chambers. As such these are tools created and used by humans. The act of selecting or rejecting content and views, with the follies of those processes, should also be ascribed as human.

## 2.2 Fake News

Whether fake news is a new phenomenon, can be argued but defining it has proved to be as problematic as echo chambers. The motivation behind fake news cannot be explained by simply researching its existence. Such is its prominence in the public realm that the Macquarie Dictionary conferred 'Fake News' as the 'Word of the Year' for 2016 (Hunt, 2018). The motivation does not seem complicated when in exchange for sharing fake news related to Donald Trump's campaign on Facebook, teenagers from Veles, Macedonia could earn enough online revenue to afford a BMW. Even with very little knowledge about American politics, this little town of 55,000 people was home to more than a hundred websites related to Trump (Subramanian, 2017). It is suggested that there is a mix of both ideological and economic motivations in the propagation of fake news (Allcott & Gentzkow, 2017), but it is more typical to rise out of ideological motivations. Alex Jone's InfoWars, a site that was established in 1999, is considered one such site targeting its regular viewers and has a coherent ideology which could be called alt-right. Allcott and Gentzkow (2017) point out two further traits of fake news, like less preference for enduring legacy over short-term revenues and a reduction in journalistic standards like research and verification. They suggest that the creation and propagation of fake news may be boosted by three factors related to the increasing importance of social media as a news source.

- a. The shift in strategies involving a preference for short-term profits which leads to clickbait over an enduring and trustworthy source of news due to the decreasing costs of production and distribution online.
- b. Smartphone access in the form of applications making it difficult for users to verify the authenticity of the article or to confirm its source.
- c. Social media habits leading to echo chambers, where users are largely in agreement ideologically and the accuracy of information is not as robust as their predispositions.

It has already been identified with the example of InfoWars that fake news is not a product of the 21<sup>st</sup> century and in fact, has existed before. It must also not be regarded as arising from alternate news sources. The belief that fake news has existed for a long time is substantiated by a belief that fake news is nothing but propaganda. To persuade the public during the First World War, facts were bent and rhetoric was used by the Committee of Public Information (Graham, 2017). So, this just demonstrates that fake news is not entirely a by-product of the internet era,

rather it is a new term for something that evolved from the past definitions (Joselit, 2017). Researchers have suggested that the term now indicates articles which are offered as factual but have no basis in reality at all (Potthast et al., 2017; Allcott & Gentzkow, 2017). The important distinction to make here is between these articles which are aimed at being misleading and satirical news which tend to twist reality for the sake of humour. This is because verifying the legitimacy of the article depends on the neutrality and precision of independent fact-checkers, which may prove to be a prickly undertaking (Potthast et al., 2017). More generally, the concepts of truth and facts have proven to be contentious at best, due to them being subject to interpretation based on a variety of factors including but not just limited to culture (Stuart, 2002).

Journalism is an integral part of upholding the values of democracy and hence the reason for concern among researchers relating to the effects of fake news (Svensson, 2012; Hackett, 2013). For the sake of preserving a healthy democracy, an objective and truthful press provides a medium to hold powerful people accountable and supports democratic values (Golding & Elliott, 1979; Merritt, 1995; Bennett, 2001; Kovach & Rosenstiel, 2001;). Through the spread of misinformation in the public about important issues, fake news is a threat to democracy (Merritt, 1995)

### 2.3 News Ecology & Social Media

News has been in a transitive phase over the last two decades since the internet became mainstream. It has had to adapt to the changing needs of the consumer as the landscape around it has evolved. Hence, attributing fault on social media for the existence and propagation of echo chamber would be misguided. There has been a growing disenchantment with the news before and since the emergence of social media. There are a few contributing factors to this lack of trust among the audience. With social media becoming a powerful place of gathering online, it has also become an avenue where the “news” happens. Social media presence has become a necessity for corporations and politicians alike, making it an arena where important discussions take place, even though, many times these accounts exist more for the purpose announcements, publicity and presence rather than engagement with the public. These accounts are seldom operated directly by individuals rather than teams who operate on their behalf (Bossetta, 2018). This allows for the use of social media by prominent figures as a one-way broadcast rather than a two-way dialogue. Politicians like Donald Trump avoid press conferences (Washington Post, n.d) and prefer Twitter for similar reasons. Subsequently, social media becomes a source of newsgathering for some journalists as other avenues shrink. Even before social media, the news was tailored to cater to ideological biases, which led to disenchantment among readers who

could recognise these biases leading to a decrease in trust in news outlets. Social media just provided an alternate avenue where users could find more content including, but not limited to, the news. The trust in source for users shifted from news outlets to friends, where if the news was shared by a friend, it must be trustworthy. This alternate news source did not need to adhere to journalistic standards, which enabled the spread of fake news. These events seem to have primarily come together mostly in liberal democracies where the effects of globalisation augmented the disenchantment because of their apparent weaker stance on issues like lack of jobs and immigration. This in turn gave impetus to the rise of populism in these countries where the public was already polarised due to their pre-existing echo chambers. Although Allcott and Gentzkow (2017) in their study mainly focus on the supply of fake news as the primary factor in its propagation, basic economic theory tells us that the supply would dwindle if there was no demand for it. Hence the blame on social media being a major factor in the creation of echo chambers is not substantiated as these may have been created by the news in service of a section of the public they consider as the target audience.

Although Google, Facebook and Twitter provide a platform for the propagation of echo chambers and fake news, it may be argued that if these were confined to digital platforms, they would not disseminate as much without existing in a wider news ecology. That dissemination is aided by the processes of news gathering in outlets that may be seen as a part of the mainstream news media. The news ecology that these outlets operate in is considered to also encapsulate digital platforms. In general, the occupants of this news ecology, which includes the news outlets and the digital platforms, are wrestling with what is expected from them by their audiences who also sometimes act as content producers. The popularity and the rise of alternative news sources, who mostly publish fake news, arises from a situation where the belief in the news from older outlets has faded, while the rejection of globalisation occurs. In this context, these rejected outlets are assumed as agents and the ones suffering the consequences.

The internet changed wildly after the stumble around the turn of the millennium. The major focus now went to platforms that were interactive and provided users with a way to connect with other users and services. In many ways, Google was the first to “platformise” in the form of search followed by social media platforms like Facebook and eventually Amazon, Apple and Netflix. These platforms had the advantage of being first to market, which enabled their monopolistic tendencies. To maintain their lead, these companies started usurping smaller players and new start-ups, thereby eliminating potential competition. The concentration of ownership started to resemble the more traditional media platforms due to monopolistic tendencies (Bauer & Latzer, 2016). These companies together referred to as FAANG, are now



undeniably considered the largest companies of the world (Mosco, 2017). This has led to increasing demand for regulations of these companies by legislators due to concerns relating to data leaks, privacy, anti-competitive methods and failure curb hate speech and fake news (Flew, 2018a). Whether these digital platforms, which function like media companies, need to be regulated by governments in similar respect is needs to be considered (Mansell, 2015; Napoli & Caplan, 2017; Gillespie, 2018).

Even though increasingly these digital platforms act like media outlets, it would be dangerous to attribute the blame for the spread of fake news to these platforms alone. As stated earlier, fake news spread through before and after the rise of the internet, is not only about the past role of mediums like radio, newspaper, television and online. For fake news to spread, these traditional media companies are complicit in providing a platform for its propagation, lapping it up as content without due process or validation, thereby feeding into the cycle of legitimisation as well. This, compared to the number of people sharing fake news on social media, has a much bigger effect. The increasing role and effect of partisan news media should be more concerning than the role of the Macedonian teenagers or the Russian interference in the 2016 US elections (Vargo, Guo & Amazeen, 2018). Because these partisan news outlets are trusted by their audiences and act as a source of gathering facts, their role is more important than sites engaging purely in fake news. While it may be tempting to only look at what is termed as the alt-right media, for their role in spreading fake news as part of the propaganda, they are benefiting from the cynicism with traditional media outlets and the current state of journalism which manifests on the left as well. To this extent, there has been increasing criticism of the BBC and The Guardian which are generally considered to be on the left, and the way they covered Jeremy Corbyn in the United Kingdom (Margetts, 2017; Freedman, 2018). This resulted in a rise in the variety of alternative media on the left (Chakelian, 2017).

The association of the news media with fake news also meant that they have been targeted by governments in the form of regulations. This goes against the notions of journalistic freedom, to the extent that it dissuades upcoming outlets who may defy the establishment and other established outlets. Like in the case of the Anti-Fake News Bill that was introduced by Prime Minister Najib Razak in Malaysia in 2018, where he used the rhetoric of fake news and parliamentary process to justify prosecution by the courts of independent and alternative media outlets and members of the opposition parties (Haciyakupoglu, 2018). It was later revealed that Razak was embroiled in investigations related to corruption charges and the earlier claims against him may not have been fake. This kind of targeting of legitimate media outlets has been

championed by Donald Trump by his use of rhetoric like ‘failing New York Times’ and ‘fake news media’, especially when targeting CNN, ABC, CBS and NBC (Farkas & Schou, 2018).

## 2.4 Populism & the media

Terms such as ‘fake news’ and ‘echo chambers’ have become a part of the social conscience since the 2016 US presidential elections. The elections were noteworthy for their use of slogans like “Make America Great Again (MAGA)” or “America First” by the Republican Party as if to suggest that somehow the US as a country had degraded. This “degradation” was directly blamed on globalisation and its effects over the last 40 years and in turn would require reintroduction of tariffs and withdrawal from a variety of international trade and agreements to safeguard domestic jobs and manufacturing. These developments have been studied and dubbed as ‘new populism’ by several researchers (Anselmi, 2018; Judis, 2016; Laclau, 2015; McKnight, 2018; Moffitt, 2016; Mouffe, 2018; Mudde & Kaltwasse, 2017; Müller, 2016; Waisbord, 2018a, 2018b). It has been claimed that politics around the world is in a ‘populist moment’ and the rhetoric echoes the disenchantment of the public with the failure of democracy, effects of globalisation and anti-elitism and uses the side effects of migration, social anxiety, xenophobia, loss of jobs and failing economies as pillars (Waisbord, 2018a, p. 18).

Populism in recent times is often mistaken to be a right-wing only phenomenon, but research points to the contrary. Evidence suggests that populism can stem from any of the two different ways. One, it can be a result of the ‘us versus them’ narrative which is when the majority is treated as the marginalised and the construct of ‘the other’ which is left up to whoever it is that is against them (Anselmi, 2018; Mudde, 2004; Mudde & Kaltwasse, 2017; Müller, 2016). Examples of this have been seen in the violence in Charlottesville, USA and the numerous occurrences of cow-vigilantism across India. Populism itself is barely the issue, Mudde and Kaltwasse (2017) suggest that populism is a ‘thin-centred’ ideology, which means that populism cannot be used to define ideological division, it can be either right-wing or left (pp. 5–7). It works by contrasting the masses or the majority to “the other”. Hence, Mudde and Kaltwasse term populism as a “contested concept”, meaning it is used differently across different context. Economic mismanagement and clientelism are often used as populist rhetoric in Latin America, while xenophobia and anti-immigration are used in Europe. There are a few features of populism that make it different from other ideologies such as communism and capitalism. Most often, it is a tag used to implicate others negatively as opposed to it being self-identifying. Populism is used to symbolize a variety of phenomena by journalists and academics because of the lack of an archetypical event or an essential text. It can be argued that even though populism

is at odds with liberal democracy, it is essentially democratic (Mudde & Kaltwasser, 2017). Although it might be tempting to heed the notion that populism as a concept has seemingly erupted from nowhere, these theories have been dealt with at least since the beginning of American democracy. One of the founding fathers of America, Alexander Hamilton cautioned Thomas Jefferson in a letter stating that unfettered democracy might lead to a scenario where the majority elects a demagogue who would only appeal to and work for the majority while putting the interests of the minority at risk. This letter was published in 1788. Looking at the majoritarian leaders like Trump, Modi, etc, it holds today as well. John Stuart Mill (1859) in his book *On Liberty* writes about the effects of such a phenomenon as the “tyranny of the majority”, which highlights that populism is not a danger to democracy rather a side-effect of it.

Müller (2016) links the identity politics used by majoritarian politicians like Donald Trump directly to the common notion that populism relates to xenophobia and racism. The kind of populism associated here refers to leaders who are not afraid to use force and disdain liberal values, thereby dividing the masses based on ideology. On the other hand, populism is seen as a substitute to ‘Third Way’ politics that succeeded in the 1990s and 2000s in centre-left and social democratic parties by the political left. It is also seen by some authors as a way to unite people from diverse backgrounds and injustices by seeking to express through populism and against a common establishment or the elites (Laclau, 2015; Mouffe, 2018; Judis, 2016; McKnight, 2018). Left-wing populists argue that populism is just as relevant to the politics on the left, as it is to the right. Just as the use populism can divide people based on race and ethnicity, a left-wing populism can also unite people based on the common denominator of the public disenchantment with the people in power, capitalism, inequality or unhinged monopolistic corporations.

Movements associated with populism have undoubtedly reaped the results of the public’s disenchantment with the status quo (Piketty, 2010). Flew (2014, 2015) cautions that just as neoliberalism became fashionable over the past few decades, we need to be aware that populism could become the same. The decreasing role of the news media in mediating communication between politicians and the public, and social media replacing them as independent platforms through which the politicians communicate directly has the danger of perceiving different types of politics through the populism lens. Jacinda Ardern, the new leader of the labour party in New Zealand and Jeremy Corbyn from the labour party in the United Kingdom are viewed as politicians who use populism on the centre-left (Judis, 2016; McKnight, 2018), although it can be argued that populism has just become a fashionable terminology attested to these new left-liberal

candidates. As described earlier, populism is expressed through a range of ideological positions regularly by politicians in their rhetoric.

The relationship between populism and the media can be seen as symbiotic. To understand populism, the role of the media in influencing the trend of populism needs to be investigated (Mazzoleni, 2014). Populism and the media are closely linked (Moffitt, 2016). Moffitt (2016) further observes that the rhetoric used in populist political talk is promoted by the media as it leads to an increase in viewership through the creation of cult personality. Populist leaders like Silvio Berlusconi, Sarah Palin, Pauline Hanson and Donald Trump have been involved with the media either before or after entering politics. This reflects the overlapping traits of populist leaders and the media in attracting the masses with the simplification of complex arguments, contrarian viewpoints, willingness to participate in unseemly debates and a deterministic agenda (Mazzoleni & Schulz, 1999).

A lot of analysis was brought up on the US media after the 2016 presidential elections. Both the traditional news media and social media played an important role in the Trump campaign.

from the apparent disconnect of the agenda-setting media with vast segments of the American voters to the deluge of fake news circulating on social media, and from the intensity of the confrontation between President Trump and the media to his constant use of Twitter to promote alternative – and often unsupported by facts – narratives, there is a sense that the matrix that used to tie politics, media, technology, and the citizenry in fairly predictable ways has moved far away from equilibrium. (Boczkowski & Papacharissi, 2018, p. 1)

Trump's rapport with the media has been controversial. During his campaign, CNN was referred to as 'fake news' (Johnson, 2018) and New York Times as 'failing' (Sullivan, 2018), while Fox News and Alex Jones' Infowars were given preference. Trump's proclivity for controversy attracted an immense amount of media coverage, which has been identified as one of the reasons for his elections. A media executive was quoted as saying -

It may not be good for America, but it's damn good for CBS ... Most of the ads are not about issues. They're sort of like the debates ... Man, who would have expected the ride we're all having right now? ... The money's rolling in and this is fun ... I've never seen anything like this, and this going to be a very good year for us. Sorry. It's a terrible thing to say. But, bring it on, Donald. Keep going. (quoted in Bond, 2016)

The enthusiasm of the media executives was not shared by the reporters on the ground. CNN's White House correspondent Jim Acosta has been at the receiving end of many of Trump's rebukes (Grynbaum, 2017) and the aggression has not ceased. The relationship has been explained by Acosta as such –

There is that natural tension that exists between the press and the people we were covering, but it was never like this. We were never called “fake news.” We were never called “the enemy of the people,” and that just created a totally different climate and environment that we are all trying to make sense of and trying to figure out: How do we cover the news in that kind of toxic environment? (Johnson, 2018)

This divide between the executives is a longstanding gulf that has existed due to the corporate interests in running newspapers for the sake of profits. “This network of the powerful provides news and entertainment filtered to meet elite demands and to avoid offending material” (Herman, 1995, p. 92).

## 2.5 Echo Chambers & Filter Bubbles

Jamieson (2008), while introducing a chapter on 'echo chambers', states "meaning exists at the intersection of a text, a context, and an audience" (p. 75). This is an important distinction to make in the argument of social construction. If a text is held responsible for the effects it has on the reader, it must be noted that the context and the reader bring their own understanding to it. Hypothetically, a text may be written with no bias, intent or malice, the meaning the audience bring out is dependent on the sociological, psychological and political context. This means that, if the text is produced from a certain frame of reference and the audience receiving the message also adds meaning to it from their perspective, then there forms an inherent relationship between the text and the audience. This relationship may be one of acceptance, rejection or indifference. When the context is politics, it means that there is already a relationship between the text and the audience even before it is consumed as the relationship is determined by their previously held political bias. They can choose to accept, reject or ignore these texts depending on those beliefs. If the information doesn't align with their beliefs then they are more likely to find reasons to reject it (Jamieson, 2008). This belief reinforcing behaviour or selective exposure is one of the primary reasons for the existence of echo chambers in the audience. Echo chambers, much like its metaphorical connotations, is when belief reinforcing opinions or news are accepted and magnified, and anything opposing the same are refuted. It is suggested that in the conservative media space, this kind of action is not only for the sake of amplification, but also to create positive feedback loops (Jamieson, 2008). A positive feedback loop is when agreeable voices

unite, and one outlet legitimizes the other by repeating the same message. So, the echoing serves the functions of repetition, legitimisation and amplification.

The progress of social media brought about a change in context for the news and the audience alike. The increasing reliance on social media for news supplemented the effect of repetition, legitimisation and amplification with the help of recommendations based on algorithms which in turn were based on previous usage (Beam, 2018). Beam et al. (2018) used Slater's (2015) reinforcing spiral model to understand the process of selective exposure. With the help of this model, they examined whether through exposure to news on Facebook, sieved through the social and algorithm filters, whether there were any signs of polarization, depolarization & homeostasis related to the 2016 US presidential elections. They concluded that those who were already politically polarized had a tendency to turn to Facebook to reinforce their beliefs but over time the effect of reading news on Facebook had a moderate depolarising effect.

A 2016 research by Flaxman, Goel and Rao suggests that there was higher ideological segregation among individuals who read articles obtained via social media or search engines compared to those who went to the websites directly. As a counterpoint though, they also found evidence that these mediums are capable of increasing exposure to diverse viewpoints. They conducted quantitative research based on news reading habits of 50,000 American participants who read news online. In an earlier review, shortcomings in their data collection methods related to the use of an outdated browser (Internet Explorer) in a time when a majority of the web browsing activity took place on Google Chrome were found, thereby completely missing a large section of the voting population.

On social media, the spread of news is dependent on a combination of factors. These factors are the basis of the problem this study examines. How the users discover news on social media has been a matter of much discussion and how easily it can be manipulated has been confirmed by the likes of Cambridge Analytica, which gained access to user data on Facebook. The two ways a user can come across news on social media is either through the 'trending' sections which are available on platforms such Twitter, Youtube and Facebook or if it has been shared by one of the "friends" that the user follows. The first interaction through algorithmic filters is what has been discussed previously as filter bubbles. The 'trending' section is mediated by the platform and is different for every individual based on their previous interactions with the platform. The second interaction through news shared by friends can lead to an echo chamber as that choice can be based on multiple reasons, one of which is political resonance. Discussing

politics on social media has become commonplace. To this point, Bakshy, Mesing and Adamic's (2015) research agrees that despite there being an existence of division based on ideology, the exposure to content that cuts across ideological lines depends on who the user chooses to follow and what is being shared by who they follow. The user can use the platform to have completely apolitical interactions. This is a big reason why there exists a disagreement in the research studying these facets of news consumption, especially on social media and namely echo chambers and filter bubbles. The question that needs further analysis is what happens when an individual's prior bias is fed with propaganda using filter bubbles and echo chambers? As in the case of Cambridge Analytica, it is easy to target and influence sections of society to spread misinformation with these becoming effective tools and eventually corroding democracy.

According to Kalev Leetaru (2017) the election of Donald Trump as the 45th President of the United States can be directly related to the concepts of echo chambers, filter bubbles and fake news, going so far as to confer 2017 as the year of filter bubbles. As enticing as the claim is, filter bubbles have existed ever since the emergence of Web 2.0 and related technological behemoths like Google & Facebook. These companies have made a living out of serving users content filtered through algorithms. The Australian Competition and Consumer Commission describes filter bubbles as the effect where exposure to new information and diverse perspectives is reduced based on the user's previous usage by filtering due to algorithms on digital platforms (ACCC, 2018). This simply points to the fact that even though the effect may have been defined in 2018, its existence is directly correlated to the very platforms who are formed based on these algorithms. It can be argued that we are just noticing the effects now. Reuters News Report points to the contrary while still accepting the potential existence of filter bubbles. They reported that modern users of the internet who use multiple platforms such as Facebook, Twitter, Reddit and Google are exposed to more diversity than those who are restricted to singular platforms (Newman et al., 2017, p. 9). This illustrates the point that users who choose to restrict their interactions only to their favoured platforms or "friends" can be prone to the effects of filter bubbles & echo chambers. Anecdotally, this is the equivalent of only reading one newspaper before the internet era, which is entirely plausible. Leetaru (2017) also questions, whether it is easier incriminate these digital platforms, who mediate the world around us more and more while forgetting that it inhabits people who are diverse and don't necessarily think alike. But they were ushered with the promise of easier access to information and more interactions between people of different backgrounds. Although it is undeniable that has happened, it is also important to note that these platforms act as a marketplace for propaganda for those who wish to manipulate the algorithms & the human penchant for groups to their advantage. Fuchs (2017),

on the other hand, accepts that part of this blame on the media can be interpreted as technological determinism.

Evidence for the existence of filter bubbles is remarkably sparse. A study spanning seven nations carried out at the Michigan State University with 14,000 users inferred that users online commonly depend on sources from a varied range for political content, and information on social media is usually met with substantial distrust. If they do come across questionable information then it is corroborated with other sources (Dutton, Riesdorf, Dubois, & Blank, 2017, p. 127). The exposure to fake news and the effects of filter bubbles was found to be higher for users who not well-versed with politics and had little interest in politics whereas those who were more politically inclined and active on the internet were found to be good at maximising and cross-checking information online. The trust in traditional media was observed as having an inverse effect on the tendency to using search engines. But this fear and scepticism of filter bubbles, echo chambers and fake news have not been substantiated by evidence and hence it is recommended not to initiate changes in laws and regulation (Dutton, 2017).

It has been noted by Dubois and Blank (2018) that it is difficult to validate the case for the evidence of filter bubbles. Firstly, most of the research does not account for the scale of the internet by focussing on one platform and the degree to which the internet is responsible for creating a situation where news and other political content can be gathered from a variety of sources and platforms by the users (Dubois & Blank, 2018, p. 730). Second is that these experiments do not do justice to how users interact within a multi-choice media environment. Their study, which employed 2000 social media users in the UK, found strong evidence that “the likelihood of being in an echo chamber may be reduced by higher political awareness and a diverse media diet” (Dubois & Blank, 2018, p. 740). And like other studies, they also found that around 8% of those who were surveyed were possibly in an echo chamber. Although 8% may seem minor in a small-scale study of 2000 users, it would be an interesting idea to extrapolate this data and superimpose it with the voting population and the effect this 8% can have on their choices. Dubois and Blank (2018) go on to suggest that the most effective method to tackle this situation would be to increase media literacy and to encourage the use of multiple sources for news gathering and fact-checking purposes. They also suggest that the issue of filter bubbles is not very different from other issues related to the media like selective exposure (echo chambers), trust in the media and media literacy. These issues are neither isolated to the use of social media nor can they blame directly on these and other web technologies.



Throughout this chapter, we have seen where the news media stands concerning the various concepts and what contributes to its current state. The changes in the media landscape, whether through an increased competition or an abundance of choice for social media users may have forced the news outlets to look at ways to target and enhance viewership. This came at a cost of journalistic integrity and a lack of verification. Whereas the increasing populism, whether through the left or right, made media's role in the public discontent even more apparent. The news, as it stands, must pick sides and thereby create its own echo chamber. This section by itself suggests that it may be time for the news to go back to its journalistic values and look inwards in its complicit nature to the propagation of fake news and echo chambers. By studying the depth of representation of echo chambers, this study hopes to find whether there is any hope for these media organisations, or this rabbit hole will go further down. It is a challenging time for the media to stay relevant and remain profitable.

### 3. Methodology

In this chapter, a summary of the methodology used for this research will be outlined, that is critical discourse analysis (CDA). The significant aspects of CDA will be presented, alongside the way they apply to this study.

#### 3.1 Language, Discourse & Power

The study of news is a study of the use of language. Through the use of language, journalists convey ideology to its audience. Language, on the other hand, is not only used to describe and identify the prevailing characteristics of the world but also forms a part of the world because of the way it classifies and ascribes meaning to events, objects and issues. A text, as produced through the use of language, is prone to an array of interpretations because its meaning can never be constant or established. Subsequently, it can be stated that texts are political because they ascribe meaning to the world and their meaning is contested. Language then becomes subjective and full of meaning. The use of language is affected by personal choices such as political alignment and social values. John E. Joseph (2006) argues that language is inherently social, it exists because it is used as a form of interaction *en masse*. Therefore the use of language is loaded with context and not without a continuity.

The study of news is also a study of discourse. Discourse is another widely used and applied term. It is a generalised term used as a conceptual equivalent of ‘conversation’ within the field of communications. Discourse is “the totality of codified linguistic usages attached to a given type of social practice such as legal discourse, medical discourse, religious discourse, et cetera” (Marks, n.d.). Foucault (1972), however, delimits discourse from linguistics to include signs and sequences and terms them as enouncements. Discourse then, as enouncements or statements, are no longer limited to semiotics and linguistics, rather they act as constructs that are used to assign meaning and to communicate in a manner that can be reproduced through repetition. Talbot (2007) adds, “discourses are structures of possibility and constraint, they are historically-constituted social constructions in the organization and circulation of knowledge” (p. 11). He cites medical discourse as an example where previous knowledge is not only upheld but also the basis of exerting power over related ascriptions of health and sickness. A similar argument can be made about news discourse or news as discourse, especially as a medium of dissemination. Consequently, power is not a function of an elite group, rather it is spread and exerted through discourse (Foucault, 1972). O’Sullivan et al. (1994) confirm this in their definition, “Discourses are the product of social, historical and institutional formations and meanings are produced by these institutionalized discourses” (pp. 93-94). This means that apart

from maintaining power through upholding meaning, discourses are responsible for the creation of meaning as well.

Robin Lakoff (1990) suggests power is revealed through interpersonal communication (discourse). She further states that the use of language is always political. Through the act of persuasion, a person tries to get another person to see the world as they see it. This act of persuasion, which may also result in action, is an exercise of power. Similarly, power is also exercised by the producers (journalists, editors and owners) of news when they disseminate a message. The message, inadvertently or otherwise, is loaded with the views of the producer(s) of the text, which becomes an exercise of power through language and discourse. It is important to note, Foucault (1980) mentions that power is not merely negative, but can also be enabling. Power “needs to be considered as a productive network which runs through the whole social body, much more than as a negative instance whose function is repression” (Foucault, 1980, p. 119). He then goes on to state that power and knowledge are inseparable, “there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time power relations” (Foucault, 1995, p. 28).

### 3.2 Critical Discourse Analysis

The political and social ideological practices that shape and are shaped by discourses is the main focus of CDA (Fairclough, 1992, 2001). It is a research paradigm that does not adhere to a particular method, but rather a combination of methods that are guided by scholars who use different methodologies and tools for analysis (Weiss & Wodak, 2003). CDA offers a methodology that can be adapted to a variety of streams, offering a modular system that can be adjusted to best suit the needs of the particular (Wodak, 2006). CDA becomes the antithesis to ‘one size fits all’ formula. This diverse quality ‘allows for open discussions and debates for changes in the aims and goals, and innovation’ while using CDA (Wodak, 2006). But the common ground shared among all the iterations of CDA is to reveal hidden ideologies, social hegemony and reproduction of power (Wodak & Meyer, 2015). Users of CDA are most interested in topics such as colonialism, racism, xenophobia, employment, sexism, gender inequality and nuclear power (Fowler, 2013). It is the intent behind CDA to make the reader aware of the power of language and its role in the reproduction of power that can influence social reality and their views.

Ideology is fundamental to CDA. It is defined as a system of ideas that characterise socio-cognitive representations of groups (van Dijk, 2006). CDA views discourse as primarily concerned with the reproduction of ideologies. Ideology may be conveyed through other means

such as symbolism, but discourse plays an important role in its day-to-day representations (van Dijk, 2006). This is where CDA positions itself as a ‘critical analysis’ of discourse to reveal hidden ideologies in the different types that are practised. It is a common misconception to see critical as negative. It is not the intention behind CDA to present a definite answer to a question, rather it provides the tools for a deeper understanding of the existing social structures (Wodak, 2006). Wodak and Meyer (2015) view CDA as a tool to enable a deeper understanding through demystifying discourse analysis and by maintaining transparency in the process. Hence, CDA does not impose a dominant ideology on its readers or users, rather it offers instruments to bring about social change through critical thinking.

### 3.3 The Study of Headlines

A headline is significant to the reproduction of ideology for newspapers because it acts as a signpost for the rest of the article (Mahmood et al., 2014). Therefore they are vital in attracting a reader to the article, as a headline is the first point of interaction between the reader and the article and it acts as a brief summary to the rest of the news (T. A. van Dijk, 1988). This is one of three claims made by Conboy (2010). He further states that the headlines grab the attention of the reader and that an indication of the news values of the outlet can be gathered from the headline (Conboy, 2010). Consequently, a quick reading of the headline leads to a decision-making process from the reader, where a choice regarding the further reading of the article is made.

Additionally, the language used in newspapers differs distinctly in style from the language used in the headlines (Elyas & Al-Zahrani, 2019), as that aids in attracting the attention of the reader. This requires the headlines to have distinct features in terms of writing structure and the use of words to convey meaning quickly. Headlines can be used as an abstract to the central event of the story (Bell, 1991) or as highlighting one of the details of the story (Nir, 1993). In this way, headlines can not fully represent the whole text of the article (Ifantidou, 2009), as through the process of abstraction or elimination, the meaning changes. In a similar study on headlines, Bonyadi and Samuel (2013) found that headlines not only served as an introduction to the article but also represented the “subjective attitude” of the author regarding the topic of the article, which was aimed at affecting the reader’s perception of the article (p. 8). It was also noted that the headlines were used to express the preferred ideology of the outlet, not just to inform the topic (Bonyadi & Samuel, 2013).

For the reasons mentioned above and to limit the scope of this research, headlines were chosen as the basis of the study. Searching for the keywords “echo chamber” or “echo

chambers” proved to be problematic for the amount of data that was available. Limiting the search to the headlines of the articles resulted in more manageable data size. The process of arriving at the final sample will be elaborated in the following sections.

### 3.4 Sources of Data

There were a few steps related to the process of data sourcing. The websites of the news outlets formed the primary source for gathering the data. *Allsides* has a list of featured sources that contains 50 outlets. This was narrowed down to 25, by cross-referencing with the top websites in the US as compiled by *Alexa.com*. Once a ‘bias table’ was collated through page rankings (Alexa) and the bias (Allsides), *Google’s advanced search* was used to search the corresponding websites with the keywords. Finally, the article was sourced directly from the corresponding websites of the news outlets.

### 3.5 Allsides’ Methodology

A major aspect of this study is the classification of the news outlets based on their ideological or political bias. This is a problematic notion. Even if the bias is self-identified, either it represents the whole outlet and the ownership, or it represents a majoritarian view within the organisation. An individual article goes through the process of editing before being published. Editorial oversight may affect the bias of the article, even if the journalist is neutral. It is with this knowledge, within the limitation of this study, outlets were identified based on the classification done by Allsides.com. This classification is based on a complex methodology laid out by Allsides.

The website claims that the “AllSides Media Bias Rating is based on scientific, multipartisan analysis” (Allsides, n.d). They start with the assumption that “bias is normal” and that “there is no such thing as unbiased news”. This is supported by an argument referenced in another article (Allsides, 2017). They believe that seeking unbiased news is unmanageable and it is better to balance the news by reading it from a variety of perspective. Current newsgathering methods do not allow for that. Allsides positions itself as a source that enables the presentation of news from the various biases. They present a piece of news in three categories from the left, centre or right even though the outlets themselves are divided into five categories.

These categories are not rigid and fluctuate based on a ranking system. This ranking system is based on a voting system that accounts for the voter's self-reported bias or leaning.

#### 4. Findings & Discussion

From a linguistic perspective, the term ‘echo chamber’ is a metaphor. The metaphor derives from the description of a “confined space where sound reverberates” (OED, n.d.). So every time the phrase is used, news outlets are using it as a metaphor, except if it is an article dealing with literal echo chambers. Articles dealing with literal echo chambers would belong to the sciences and will be classified as such by the news outlets. None of the articles sampled in this study were filed under the scientific section. This indicates that the term is primarily used in the media as a metaphor to denote networks that are formed based on agreement. Throughout this thesis, echo chambers will be referred to their metaphorical meaning.

A surface analysis of the headlines alone reveals the variation of usage of the term ‘echo chamber’ across the samples. ‘Echo chamber’ is used as a signifier after other words to illustrate that echo chambers exist within those contexts. In 6 out of the 13 headlines, ‘echo chamber’ is used as a signifier as a basis for indicating in-groups. These are either *Cultural, Hollywood, Digital, Online, Silicon Valley or Political*. This suggests the usage of the term as pointing to a group. In 5 out of the 6 words, it is to construct an idea of preference, that there exists a preference for certain kinds of ideology or way of thinking.

*Table 1*

Headline	Date Published	Outlet
How Netflix Is Deepening Our Cultural Echo Chambers	January 11, 2017	The New York Times
Meryl Streep's 'toxic masculinity' critique a 'step out of Hollywood 'echo chamber of conformity,' Concha says	May 31, 2019	Fox News
Do digital echo chambers exist?	March 4, 2019	BBC
In praise of echo chambers	May 22, 2017	The Washington Post
Condoleezza Rice: Brett Kavanaugh Listens at a Time We're 'Almost Tribal, Living in Echo Chambers'	September 4, 2018	Breitbart
Why I am seeking to stamp out online echo chambers of hate	September 10, 2018	The Guardian
4 Ways To Exploit Echo Chambers For Content Marketing	November 28, 2016	Forbes
Fake news: How our brains lead us into echo chambers that promote racism and sexism	May 15, 2018	USA Today
Like Peter Thiel, Tech Workers Feel Alienated by Silicon Valley 'Echo Chamber'	February 18, 2018	The Wall Street Journal
How To Break Out Of An Echo Chamber - Your Bubble	April 2, 2017	HuffPost
Twitter to Measure Echo Chambers, Unruly Comments on Service	July 31, 2018	Bloomberg
Tech Creates Our Political Echo Chambers. It Might Also Be A Solution	April 12, 2017	NPR
'Echo chamber' surrounds parental decisions about childhood flu vaccine	November 30, 2018	Reuters

#### 4.1 Right of Centre

Through the process of ranking and categorisation (**Error! Reference source not found.**) *Fox News*, *Breitbart* and *The Wall Street Journal* are classified as being right of centre by Allsides. Further, *Fox News* and *The Wall Street Journal* are categorised as leaning right, whereas *Breitbart* is

categorised as right. Since there were only three articles on the right side of the ideological bias, they were collectively termed ‘right of centre’. Henceforth, every reference to ‘right of centre’ includes *Fox News*, *The Wall Street Journal* and *Breitbart*.

**Table 2 Headlines from the Right of Centre**

Headline	Date Published	Outlet
Meryl Streep's 'toxic masculinity' critique a 'step out of Hollywood 'echo chamber of conformity,' Concha says	May 31, 2019	Fox News
Condoleezza Rice: Brett Kavanaugh Listens at a Time We're 'Almost Tribal, Living in Echo Chambers'	September 4, 2018	Breitbart
Like Peter Thiel, Tech Workers Feel Alienated by Silicon Valley 'Echo Chamber'	February 18, 2018	The Wall Street Journal

A notable similarity is seen in the usage of speech as headlines from the right of centre. The three articles from *Fox News*, *Breitbart* and *The Wall Street Journal* use speech as headlines. In these headlines, the three outlets use an endorsement from prominent figures like Meryl Streep, Condoleezza Rice and Peter Thiel to support their arguments. Meryl Streep is a notable actress from the US, Condoleezza Rice served as the 66<sup>th</sup> US Secretary of State (‘United States Department of State’, n.d.) and Peter Thiel is a former venture capitalist who co-founded PayPal and was one of the first investors of Facebook (*Forbes*, n.d.). Meryl Streep is quoted as critiquing the **Hollywood echo chamber**, Condoleezza Rice endorsed Brett Kavanaugh when we are **almost tribal, living in echo chambers** and ‘Tech Workers’ echoed the feelings of Peter Thiel as they found themselves **Alienated by the Silicon Valley ‘Echo Chamber’**. These outlets support their arguments by including the names of prominent figures in their headlines, which is not present in any other headlines sampled in this study. The headlines in *Fox News* and *The Wall Street Journal* support their arguments by featuring personalities who were part of the fields that are under criticism, whereas the headline in *Breitbart* acts as an endorsement of Brett Kavanaugh while objecting to the ‘time’. The time, in this case, refers to the present moment, especially in the political sphere.

Two particular uses of note are from *Fox News* and *The Wall Street Journal*. *Hollywood* and *Silicon Valley* are places that are synonymous with the dominating industries that occupy them. *Hollywood* is known as the home of the big studios of the US and *Silicon Valley* is home to the



majority of the technology giants. The use of the names of the city to signify the majority of industries that inhabit those places is a common trope of metonymy (Richardson, 2007), where *Hollywood* and *Silicon Valley* stand for the film and technology industries, respectively. By using the term echo chamber after these places, the intention is to illustrate that there exists a network which is based on conformity. The two headlines are printed in *Fox News* and *The Wall Street Journal*, which according to the Allsides categorisation lean right. It is denotive of how *Hollywood* and *Silicon Valley* are commonly construed as ideologically being on the left. By using the term echo chamber, *Fox News* and *The Wall Street Journal* position *Hollywood* and *Silicon Valley* echo chambers respectively as being ideologically on the left. Another striking feature common in the two headlines from *Fox News* and *The Wall Street Journal* is determiner deletion (Bell, 1991). The two headlines drop the definite article ‘the’ from the headlines to confer titleness (Richardson, 2007) to *the Silicon Valley Echo Chamber* and *the Hollywood Echo Chamber*. The use of ‘echo chamber’ in conjunction with the names of these two places has a negative association.

Within the headlines across the right of centre, there are some assumptions made. This forms the basis of presupposition, when “implicit claim embedded within the explicit meaning of a text or utterance” is taken for granted (Richardson, 2007, p. 63). All the three headlines from the right of centre assume that echo chambers exist, but they do so differently. *Fox News* assumes that ‘Hollywood echo chambers’ exist and through the act of ‘critique’, Meryl Streep has stepped out of it, which is also an assumption that Meryl Streep was previously in the ‘Hollywood echo chamber’. This is also a predication through criticism (Richardson, 2007), when Hollywood, which essentially means the film industry situated within the place, is an ‘echo chamber of conformity’. This can be seen as a way of differentiating the people within the Hollywood film industry as being from a different ideology than the producers of the text.

*Breitbart* on the other hand, through its headline, uses ‘living’ to assume that echo chambers exist, naming the act as ‘tribal’. ‘Living’ is a verb-based is a presupposition (Richardson, 2007) that assumes that ‘we’ are living in echo chambers. This ‘we’ is undefined and in a general way refers to society. Tribal can mean belonging to a tribe and it can also be denoted as being uncivilised. Again, the attempt is to denote negative connotations to echo chambers, while not clearly pointing blame towards anything particular by using ‘we’.

Finally, ‘alienated’ is used as a verb-based presupposition (Richardson, 2007) to assume that the industries in Silicon Valley harbour echo chambers, in *The Wall Street Journal*. Again there is an assumption that a ‘Silicon Valley echo chamber’ exists and that the ‘Tech Workers’ referred in the headline were previously a part of it, who now feel ‘alienated’. Similar to how ‘Hollywood’

was predicated as an ‘echo chamber’, ‘Silicon Valley’, a place known for the technology-based industry it inhabits, is also predicated as an ‘echo chamber’.

Hollywood and Silicon Valley, as designated by the news outlets from right of centre, indicate hegemonic ideologies to the authors of these articles. By addressing these two industries as echo chambers, the outlets indicate that the Hollywood and Silicon Valley echo chambers have a liberal leftist hegemony. Paradoxically, Meryl Streep is a self-identified leftist (Topping, 2011) and yet the headline in the *Fox News* article highlights her quote critiquing ‘Hollywood’ as it suits their narrative. When stating that Streep’s critique is a step out of the ‘Hollywood echo chamber’, the narrative is not only critical of her for being a part of the echo chamber, but also of the echo chamber itself, both of which are construed as leftist (Jacobs, 2019; Topping, 2011). Conversely, by naming Peter Thiel, who is known to be a conservative (Thrasher, 2009), the headline in *The Wall Street Journal* is used to support the narrative that ‘Tech Workers’ feel alienated by ‘Silicon Valley echo chambers’, which are commonly constructed to have leftist hegemony (Broockman et al., 2017; O’mara, 2019). These narratives are synecdochic, where the whole (Hollywood, Silicon Valley) does not represent its parts. It can be argued that these two industries may have conservative voices, people who have conservative ideologies, that need representation and by representing the whole industry as liberal, the news outlets end up misrepresenting the same voices they are meant to represent.

By representing the liberal end of the political spectrum and related hegemony as echo chambers, the right of centre outlets construct an argument that sets one ideology against another. In turn, constructing an ‘us’ versus ‘them’ argument. This is comparable with the populist rhetoric of leaders such as conservative nationalists like Donald Trump and Narendra Modi. Increasingly, these leaders, just like the right of centre outlets in this study attack the liberals as ‘elites’, another feature of populist discourse.

## 4.2 Left of Centre

To maintain consistency, outlets that are categorised as left and lean left in the bias table will be characterised as ‘left of centre’. However, there are two articles in each of the two categories and will be sub-categorised as such. In effect, articles from *The New York Times* and *HuffPost* will be referred to as left and articles from *The Washington Post* and *The Guardian* will be referred to as lean left. This is consistent with their categorisation as per Allsides.

#### 4.2.1 Left

**Table 3 Headlines from the Left**

Headline	Date Published	Outlet
How Netflix Is Deepening Our Cultural Echo Chambers	January 11, 2017	The New York Times
How To Break Out Of An Echo Chamber - Your Bubble	April 2, 2017	HuffPost

The two headlines categorised as left have some obvious similarities apart from the common feature of using echo chamber as a metaphor. First, both the headlines start with ‘How’. Although, in the headline in *The New York Times*, ‘How’ is used to presume than to question, by assuming **‘How Netflix Is Deepening Our Cultural Echo Chambers’**. It is not an inquiry, which could have been phrased like ‘Does Netflix Deepen Our Cultural Echo Chamber?’ Rather it claims that ‘Netflix’, a platform for consuming content, is responsible for ‘deepening our echo chambers’. Conversely, in the headline featured in *HuffPost*, ‘How’ is essentially used to phrase a question, but without the necessary punctuation, namely a question mark. The headline is also framed as a ‘How to’, which is a common way of signifying a guide or a manual, making it seem definitive. Second, and perhaps more importantly, both the headlines from the left are forms of presupposition. The headline in *The New York Times* uses ‘deepening’, a verb-based presupposition, to presume that ‘cultural echo chambers’ exist and that ‘Netflix’, an online platform that hosts films and television shows, is responsible for ‘deepening our echo chambers’. Whereas, in the headline used in *Huffpost*, ‘break out’ is used as a euphemism for escape to assume the notions of freedom from not being in an echo chamber. Escape, and by extension ‘break out’, is also a verb-based presupposition.

Presupposition is not the only tactic used in the headlines from the left. For instance, *The New York Times* uses ‘referential strategies’ (Reisigl & Wodak, 2001) to name ‘Cultural Echo Chambers’ as a collective thereby tacitly targeting the vast idea of culture and also the groups within the enormous collection of culture. The idea of culture varies broadly from meaning civilisation to the vast fields of art and humanities. Another strategy is that of metonymy, where ‘Netflix’ seemingly acts as a substitute for the algorithms that are used as well as personal preferences of its users and through the act of ‘deepening’, Netflix becomes the actor

responsible for deteriorating the situation. In this way, the headline ascribes technological determinism on Netflix for intensifying cultural echo chambers.

Apart from the use of the ‘echo chamber’ metaphor, in the headline of the *HuffPost*, another metaphor of a ‘bubble’ is used to emphasise the idea of enclosed spaces in which ‘you’, the reader, seems to be trapped. Even though ‘your’ lacks the specificity of ‘his’ or ‘her’, it acts as an article-based presupposition that the reader of the article is trapped in a ‘bubble’ and needs to be rescued by the outlet or the author. The metaphor of a bubble has direct connotations of being trapped and hence in need of rescue, which is in effect applied to echo chambers as well. Although, this may not seem judgemental towards any particular echo chamber, as in the case of ‘Cultural’, ‘Hollywood’ or ‘Silicon Valley’, it is patronising towards its reader.

#### 4.2.2 Lean Left

**Table 4 Headlines from the Centre-Left**

Headline	Date Published	Outlet
In praise of echo chambers	May 22, 2017	The Washington Post
Why I am seeking to stamp out online echo chambers of hate	September 10, 2018	The Guardian

The two outlets identified as lean left, namely *The Washington Post* and *The Guardian*, do not bear striking similarities similar to the outlets categorised in the right of centre or the left, at the outset. They do, however, still use the echo chamber as a metaphor and presuppose the term.

The headline in *The Washington Post* is succinct. By the use of the phrase ‘In praise of’, a positive position is indicated. This makes the headline unique in this respect, as most other headlines in this study do not indicate an outwardly positive stance. Through the verb of ‘praise’, the headline in *The Washington Post*, presupposes the existence of echo chambers. The headline also not have ‘the’ before echo chambers to confer ‘echo chamber’ as a title, which is a predicational strategy to infer judgement on the phrase.

The headline in *The Guardian* is written in an active voice in the first person. This emphasizes the author of the article as actively *doing* something to address an *issue*. The author is on a quest to stamp out online echo chambers of hate and it is presupposed that they are an issue. Presupposition occurs in several ways in this headline. First is the ‘why’ question. By asking

‘Why I am seeking to stamp out online echo chambers of hate?’ it is assumed that not only these ‘echo chambers of hate’ exist, but also that they can be stamped out. The use of the phrase ‘stamp out’ also denotes that these ‘online echo chambers of hate’ that it is something that needs to be done forcefully or that it needs to be quashed. In turn, implying that these ‘echo chambers of hate’ are spreading and their spread needs to be checked. Similar to the headline in *The Washington Post*, by eliminating ‘the’ from ‘online echo chambers’, a titleness is conferred on the term. This form of predication is used to emphasise online echo chambers and their negative characteristics (hate) and de-emphasise positive characteristics. By emphasising ‘online echo chambers of hate’, the author de-emphasises ‘offline’ or other echo chambers, and that in some way the ‘online echo chambers’ are a problem. A referential strategy is used in naming the echo chambers as ‘online’, emphasizing the internet. ‘Online’, also acts as a substitute for the participants of these echo chambers of hate, inferring the human emotion of hate on the inanimate object of ‘online’, something it is not capable of. This a rhetorical trope of metonymy, where ‘online’ is used as a substitute for the participants or users of the internet.

Although the two headlines from *The Washington Post* and *The Guardian* don’t share a lot of similarities in the way they construct echo chambers in the headlines, a common thread of the use metaphor, presupposition and predication does exist. However, the headline in *The Guardian* has more similarities with the headlines featured in articles from the left. To begin with, they are all phrased as questions without the punctuation, which suggests that the article below the headline will offer some kind of solution to a problem. The common denominator of echo chambers is constructed as a problem. How they construct this issue also has a similarity in approach. The headline in *Huffpost* uses ‘break out’, whereas the one in *Guardian* uses ‘stamp out’, indicating it either as a kind of bad habit that needs to be broken out of or as a fire that needs to be stamped out, respectively. In both cases, it is a problem that needs a solution of breaking out or stamping out. The headline in *The Guardian* also shares some similarities with the one in *The New York Times*. First, through the usage of verb-based presupposition, like ‘deepening’, in the case of *The New York Times*, and ‘seeking’, in the case of *The Guardian*. As discussed individually earlier, through the acts of deepening and seeking, it is assumed that the ‘cultural’ and ‘online’ echo chambers exist. Second, through naming the echo chambers as ‘cultural’ and ‘online’, the headlines in *The New York Times* and *The Guardian* employ a similar referential strategy to isolate the object. Essentially excluding all other echo chambers, which may or may not exist.

### 4.3 Centre

*Table 5 Headlines from the Centre*

Headline	Date Published	Outlet
Do digital echo chambers exist?	March 4, 2019	BBC
4 Ways To Exploit Echo Chambers For Content Marketing	November 28, 2016	Forbes
Fake news: How our brains lead us into echo chambers that promote racism and sexism	May 15, 2018	USA Today
Twitter to Measure Echo Chambers, Unruly Comments on Service	July 31, 2018	Bloomberg
Tech Creates Our Political Echo Chambers. It Might Also Be A Solution	April 12, 2017	NPR
'Echo chamber' surrounds parental decisions about childhood flu vaccine	November 30, 2018	Reuters

With six headlines forming the basis of this sub-sample (Table 5), it makes the centre, the largest group of headlines in this study. As per the description in *Allsides* (AllSides, 2012), the bias of a centre outlet is indiscernible, that is either the bias leans towards the left or the right to a similar extent on different occasions or the bias is not shown at all. The lack of bias does not equate the outlet as unbiased or neutral, rather than the ideological position is not certain and keeps shifting between the left and the right. Having identified common features of the headlines from the right of centre (4.1) and the left of centre (4.2), some clues can be gathered in the way the headlines from the centre use strategies similar to either side. This similarity does not equate to a matching of ideologies as the outlets from the centre do not have a set ideology. The strategic similarities between the construction of the headlines will be addressed in the following passages as and when they occur.

Again, all of the six headlines use echo chambers as a metaphor and display presupposition through various strategies. First is the verb-based presupposition. All of the six headlines use verb-based presupposition to assume the existence of echo chambers.

*BBC*, in its headline, poses a question about the existence of echo chambers with correct punctuation, which may seem like an inquiry at first. However, by naming echo chambers as 'digital', the referential strategy questions only the 'digital echo chambers', thereby assuming that

echo chambers have other forms and they may exist. Through the use of its verb form, 'existence' is used in the headline to allude to a fact-finding approach to the existence of digital echo chambers, signalling an investigative article. By specifying echo chambers as 'digital' in the headline, the author uses it to represent online behaviour. This referential strategy includes digital and therefore online echo chambers and excludes offline echo chambers if they exist. Similar to the headline in *The New York Times*, this indicates a technological determinism on the digital aspect of human behaviour. By posing an inquiry into digital echo chambers' existence, the author signals to a fault in the 'digital' rather than the human behaviour online.

The headline in *Forbes* is structured like a guide, where it promises to showcase '4 ways to exploit echo chambers...'. The verb-based presupposition in this headline occurs through the use of the word 'exploit'. 'Exploit', in its verb form, has negative connotations. It can mean taking advantage of something or a situation for benefit or misuse. Through the act of 'exploitation' echo chambers, the headlines denote that they exist and also that they can be exploited for the benefit of content marketing. This headline lacks the context provided by the naming strategy used by other headlines. It does not restrict echo chambers to anything like *Online, Digital, Hollywood or Silicon Valley*, just that there is a benefit to be gained from exploiting echo chambers.

The headline in *USA Today* is unique because it relates a few concepts that may be common perceptions. The way the headline is structured, it relates the concept of 'fake news' first echo chambers and consequently with 'racism' and 'sexism'. The sets up the article as a text that will explain the connection between fake news and echo chambers. This displays the use of transitivity in imposing that 'our brains lead us into echo chambers that promote racism and sexism'. In terms of transitivity, our brains are responsible for leading in to echo chambers of racism and sexism, while these echo chambers are the agents that promote racism and sexism. The headline also presupposes a few things through verbs. First, through the use of the verb 'lead', the headline assumes that echo chambers exist and that 'our brains' lead us into them. Second, through the use of 'promote', the headline assumes that our 'brain-lead' echo chambers are responsible for promoting racism and sexism, and also that racism and sexism exist. In effect, relating the concepts of racism and sexism to our brains. Our 'brain' is used as a metonym for the humans who have racist or sexist views. Thereby ascribing a complex and conscious process to a part of the body. By framing the headline like a question and punctuating with a question mark, the headline in *USA Today* uses similar tactics as the headlines feature in the right of centre.

The headline in *Bloomberg* is framed like a report, where ‘Twitter’, a social media platform intends to measure echo chambers and unruly comments on the service. This is also an instance of transitivity, where Twitter is the agent of responsible for measuring and ‘echo chambers’ and ‘unruly comments’ are objects that need to be measured. This denotes a relation between echo chambers and unruly comments, implying a negative context on echo chambers. The presence of a comma between echo chambers and unruly comments instead of ‘and’ denotes that these two aspects will not be the only measured phenomenon. A verb-based presupposition is used in the form of ‘measure’, which assumes that echo chambers and unruly comments are measurable, thereby assuming their existence. The term ‘Twitter’ used a metonym to represent the actions of humans responsible for operating it. This puts the responsibility of ‘measuring’ on the service rather than the humans. It is also a form of technological determinism that ascribes the responsibilities of human behaviour of unruly comments on a technology platform, similar to the usage in the headlines of *The New York Times* and *BBC*.

The headlines in *NPR* uses ‘creates’ as a verb-based presupposition to assume that ‘Tech’ is responsible for creating ‘political echo chambers’, thereby assigning ‘tech’ a responsibility. In the process, it also assumes that these ‘political echo chambers’ exist. ‘Tech’ is used as short for technology, similar to the headline in *The Wall Street Journal*, and it is made to represent the platforms and services that form a part of technology. It is a form of transitive sentence construction for assigning the onus of the creation of political echo chambers to technology. This is also a rhetorical trope in the form of a metonym. Through the use of this metonym, the headline uses a form of technological determinism, where it assigns blame of creating ‘political echo chambers’ on technology, when it is the users of these technologies, and more specifically the platforms and services, that are a part of these echo chambers. The headline in *NPR*, similar to the one in *Bloomberg*, is in two parts. Instead of using a comma, the headline in *NPR* uses a period to separate the two points that need to be made. A comma could be seen as one argument, but by separating the two sentences with a period, the headline makes two separate points. The second part of the headline assigns ‘tech’ as also a solution. In assigning technology as a solution, all the strategies similar to the ones used in the first part apply. Again, assigning technology as a solution to a problem that it is supposedly responsible for creating is a form of technological determination that ascribes technology with the qualities of the humans who need to find a solution. Lastly, by assigning ‘political’ to echo chambers, the headline uses a naming strategy to refer to a group, which poses questions whether other echo chambers exist and whether they need to be addressed? The headline in *NPR* uses similar strategies of technological determinism as *The New York Times*, *The Guardian*, *BBC* and *Bloomberg*.



The headline in *Reuters* uses ‘surrounds’ as a verb-based presupposition to make assumptions. First, that there is an ‘echo chamber’ around parental decisions on childhood flu vaccines. The second assumption is that childhood flu vaccinations are a decision that ‘parents’ have to make. The discussion around vaccinations has become a part of the discourse in the media (Plastina, 2019), with some parents in the US choosing against vaccinations for their children based on misinformation (Kata, 2010). The article ‘an’ is eliminated from the headline, to confer a ‘titleness’ to echo chamber, which in contrast was used by *Huffpost*, but is similar to the elimination of ‘the’ by *Fox News* and *The Wall Street Journal*.

This study started with a focus on the representation of ‘echo chambers’ in the media. Apart from the use of the term as a metaphor, the news outlets that form a part of this study use the term to affect groups. Regardless of the pre-existence of bias, ‘echo chambers’ is used to convey negativity towards another group or a phenomenon. As pointed out previously, the existence of echo chambers is contested, but the use of the term across the headlines in the study assumes its existence. Headlines form an interesting study as these are signposts for the article to invite the reader, but they also showcase the apparent point of view of the author and the publication, making them an important part of discourse. The term is seldom used in a positive connotation and to be in an ‘echo chamber’ is the same as being ‘the other’, an important concept in populism. Across the ideological spectrum, ‘echo chamber’ is used to differentiate.

According to Lakoff and Johnson (2008), “metaphors play a central role in the construction of social and political reality” (p. 159). Through the use of metaphors in headlines, the producers of the text engage in creating a reality which may or may not exist. Although the existence of echo chambers is contested among scholars, through the use of presuppositions in headlines, the outlets that are a part of the study assume they exist regardless. And this assumption is used to assign blame. The blame can be at a celebrity, another outlet or technology, but it is seldom a reflection. This study was limited to the headlines that used the keywords ‘echo chambers’ or ‘echo chamber’. A larger study investigating the representations of ‘echo chambers’ by the news media may offer clues about what is included, and more importantly what is excluded when discussing the subject of echo chambers.

It is clear from the sample that no matter what side of the ideological spectrum the news outlets fall, the linguistic methods used are similar. This indicates that there is a similarity in the way headlines are written in the news industry as a whole. The linguistic tools and the way language is used to convey ideas in these headlines indicate adherence to what an editorial similarity as well. This may be dictated by media ownership and pursuit of 'what sells'.

Without investigating the existence or explaining the concept of 'echo chambers', news outlets not only assume its existence but also inject the idea into social reality. 'Echo chambers' is used as a generalised term to address groups. Whether these groups exist as an echo chamber, is not conclusive. Yet the label is borne onto groups and an old term is given a new meaning as a metaphor. It is clear through the use of CDA, the headlines in this study have contributed to the existence of the term 'echo chambers' as a metaphor in social reality, whether their existence is factual or not. Alternate terms like groups, groupism or tribalism could have been used, but 'echo chambers' was used to bring attention to the headline.

## 5. Conclusion

### 5.1 Introduction

This study was aimed to interpret the usage of the term ‘echo chambers’ in the US news media after the 2016 presidential elections. News headlines from across the ideological spectrum were sampled to reveal how ‘echo chamber’ is used in the headlines. Linguistic tools informed by CDA were used to interpret the sample while drawing upon the ideological bent as measured by Allsides.com. News outlets were then divided into three broad categories and analysed on this basis. As this is a qualitative study, there was no intention to find patterns in a small dataset, rather a commonality in the methods of reproduction of ideology. The linguistic tools used across the spectrum do bear similarities in that the use of a term like ‘echo chamber’ to convey an idea that could have been stated in a simpler manner. It becomes clear from the methods used by the news outlets the power they have in setting an agenda. Through the use of the linguistic tools outlined earlier, news outlets not only assume the existence of echo chambers but also proliferate the belief in its existence. Simply put, the term as a metaphor may not have been a part of the social conscious if not for its usage in the media. By making 'echo chambers' a part of the discourse, it exists as a term in social reality. Just like ‘fake news’ could easily be described as rumour, ‘echo chamber’ could have been easily described as ‘groupism’, instead now the reader has to contend with a new metaphor and just as easily blame these echo chambers, in order to make sense of what was happening in the 2016 US elections.

The advent of social media brought challenges to the old ways of circulation for the news media. On the flip side, through the use of social media, these news outlets have been able to reach more people. As discussed in the Methodology chapter, through the use of language, news outlets have the power to set the discourse and through repetition, bring legitimacy to a term like ‘echo chamber’. As per Foucault, power is exerted and spread through discourse (1972). This reiterates the agenda-setting power of the media, which apart from maintaining power through upholding of meaning, are also responsible for the creation of meaning as well. As a consequence, just by the usage and repetition of the term ‘echo chamber’, they exist, maybe not in a quantifiable manner but in the social conscious. So finding proof of the existence of echo chambers through other means may be futile.

## 5.2 Answering the research questions

### 5.2.1 How is the term 'echo chambers' represented in headlines among the news outlets across the ideological spectrum?

'Echo chambers' is represented as an existing phenomenon in headlines. Apart from the BBC headline, no other headline attempts to investigate or explain 'echo chambers'. 'Echo chambers' as a metaphor is fairly new and through prevalent usage, the audience is expected to bring their meaning to the term. It is clear from the analysis that the term 'echo chambers' is used to denote group, groupthink, groupism or tribalism. The term is mostly used to address groups that seem to think alike. Individual opinion is ignored when using the term to address groups and thereby either deriding or isolating the group.

In this way, the news outlets exert the power of language use through discourse in setting and defining groups as echo chambers. These groups that are implied as one which is closed to outside voices, differing opinions and single-minded in nature. It is a general way of pointing blame at a particular group whether it is Hollywood or Silicon Valley, without addressing the point that differing opinions may exist within these groups. As Lakoff suggested, language use is political (1990). This means that the news outlets use the term 'echo chamber' in headlines to exert power on groups. But the most power exercised by the outlets is that of the existence of echo chambers. In using the term as a metaphor and by repeating its usage across the industry, inadvertently, the news outlets bring legitimacy to the term.

## 5.3 Implications of the study

As stated earlier, prior research does not provide conclusive evidence of the existence of echo chambers, yet the usage of the term across the ideological spectrum through the use of a variety of linguistic tool assumes their existence. This indicates the power of the medium that is exercised by its purveyors. It is not unlike the problem of fake news. Once a text is published, estimating the accuracy of the claims is not a priority for the reader. Especially since the wide propagation of the internet, the user is flooded with an abundance of content. This content, when filtered through the social lens, can gain its own reality. The intention behind the text becomes irrelevant at that point and the text then becomes a part of the wider social conscious regardless. So the responsibility for the accuracy of the text, especially news, falls back on its producer. In this information age, there is a need for the news cycle to slow down. This is difficult as it goes against the ideas of constant production and consumption of the news (news cycle) and the corporate profits related to it. The reader, on the other hand, has to verify news

from multiple sources and make decisions relating to bias and authenticity. This process is arduous and every reader cannot be expected to go through the same rigour.

Within this barrage of content, headlines serve an important function. A headline is what the user reads before deciding to read or pass the rest of the article. Sometimes a headline is all that the user reads. This poses a problem for the producer of the content, where, to invite a reader to the content, a headline may be written in a way that goes against truthfulness. These headlines are not only used in the articles they accompany but also on social media, where they are used to attract the attention of the reader and to get more clicks. Hence a detailed study on headlines and their effect of social reality in the age of social media could provide some useful insight. As far as this study goes, the headlines are not only used to grab the reader's attention but also to introduce new phrases like 'echo chambers' that become a part of the social reality. These phrases are seldom explained and their meaning is usually implied.

#### 5.4 Limitations of the study

The sample size of this study was an obvious limitation with only 13 headlines. Further studies may increase the sample size of the headlines or an in-depth study of the articles associated with these headlines may yield a deeper understanding of 'echo chambers'.

Defining and assigning a 'bias' is problematic and beyond the scope of this study. Hence, data from 'Allsides' was used to supplement this study. Bias is difficult to assign correctly even if it is self-assigned. A ranking based system from 'Allsides' has problems of reliability because that ranking is based on user opinion and ever-shifting. A study regarding the bias of news outlets and how it is dictated by market forces may be conducted to shed further light on the subject. Allsides as a platform is interesting and further investigation of its methods may supplement future research as a standalone study or part of a bigger study.

#### 5.5 Recommendations for future research

There is a need for standards to be developed for news, which can certify, rate and authenticate a newspaper based on their past performance, bias, accuracy and language use. This rating, if carried by the news outlets, in prominent locations, will indicate to the reader information about the outlet. The reader can then decide between trusting the content. This can also demystify a problematic concept like 'bias'. These standards could encourage responsible and accurate reporting leading to a distinction between reputable news outlets and those pushing clickbait and propaganda.

Further research may be carried out about terms that arise during times of political strife. In order to appeal to new audiences, the language use is prone to updated and expanded and old terms maybe recycled or metaphorised. The rise and eventual election of Donald Trump as the US president proved as a shock and may have been a contributing factor in the news media looking for answers in terms like 'echo chamber'. Similarly, jargons used by politicians end up becoming a part of the social reality. This study could be applied to places like India, where a similar rise of right-wing politicis and populism has also increased the usage of jargons in the media.

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