PERSONAL INTEREST PROJECT

"My views are right…right?"

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An investigation into Echo Chambers and their impact on socialisation and isolation among individuals and societal worldviews

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Introduction

Individuals' beliefs and values are predicated upon the unique formation of the societies and cultures they find themselves a part of. In a modernised context, they may form on the basis of micro, meso, or macro interactions within one's face-to-face and online interactions. From a young age, my beliefs have been closely tied to my identity. My family, peer groups, and surrounding ideologies culminate in the ways in which I view myself and my place in the environments I encounter. My worldview tends to dictate my beliefs toward power, authority and change in society as I move from teenager to young adult, navigating conversations of modern technologies, ethics and the dilemma society faces as we guide ourselves and one another to understand the moral interplay of ethical media production and consumption.

This overall contemplation has remained a driving factor in my worldview regarding modern communication technologies, their place within my micro and macro worlds, and societal influences on the creation of online politics. This interest led to my decision to further my knowledge of the topic area of echo chambers, delve deeper into the ways in which the corruption of media has occurred, aiming to uncover the driving forces behind unethical commodification by institutions and the interplay of individuals within the consequential social exclusion and isolation at the hands of consumers. These main areas of interest began upon personal reflection, micro-world observation and the consideration of Auguste Comte's theory of evolutionary change supplementary to modern society's everchanging nature, with reliance on technology, leading to my finalised hypothesis of *an investigation into Echo Chambers and their impact on socialisation and isolation among individuals and societal worldviews.* My cross-cultural component consisted of a cross-generational investigation between Generation X and Generation Z. This was achieved through two interviews with individuals of Generation X and a personal reflection as someone from Generation Z. Both aspects were complementary, providing informed analysis of current implications of institutions, the interplay of individual psyche with socialisation and isolation and finally, informed prediction of future directions of the topic area. My aspect of continuity and change lies within echo chambers present amongst COVID-19 and the overall everlasting societal influences causing the fundamental creation of echo chambers, embedded in the cognitive transmission of behaviours regarding socialisation, isolation and exclusion.

To explore my hypothesis, I employed both qualitative and quantitative research methodologies, including personal reflection, interview, content analysis, and expert interviews. Due to the nature of my PIP and its necessity for concrete, detailed examples, qualitative research was deemed most appropriate to satisfy my hypothesis. Interviews were comprised of five main overarching, open-ended questions that allowed for in-depth discussion of findings to underlie the following primary and secondary research appropriate to my aspects of exclusion, isolation, continuity, and change. By linking my findings identified via both primary research and secondary research methods, I was able to synthesise and triangulate my research successfully, proving my topic and hypothesis as valuable to society and culture.

The process of my investigation has allowed me to acquire invaluable awareness and understanding of the interplay of society and culture in the current and future directions of echo chambers and technology in my own context, and those of different generations alike in both online and offline environments, ultimately assisting my social and cultural literacy as an individual.

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My Personal Interest Project (PIP) process began with real-world micro conversations with individuals in my peer groups about how worldviews form. These conversations urged me to reflect on my values and beliefs, particularly concerning the interplay between communication technologies and online political space. As my conversations regarding my topic area continued, I often had reactions from those in my micro world that questioned what my topic area 'was even about'. It dawned on me that individuals may not even be aware of the echo chambers present within their social media or news feeds and the undue impact these have on individuals' identity and socialisation, thus forming my final decision to pursue this topic area. I first decided upon my aspects of continuity and change, focusing on the context of COVID-19 and contemporary communication technologies. This idea speaks to the inherently ever-changing contexts of modern society, underpinning the entirety of my PIP. I then decided on the cross-cultural component, which consisted of a generational comparison of Generations X and Z, enabling a deeper analysis of the life cycle of echo chambers and the interplay of individuals, modern technologies and the media.

My secondary research uncovered further findings regarding specific, unconsidered complexities within my topic area, forcing me to become increasingly aware of my own biases and the cognitive functions behind these processes within an individual of any political ideology. I found I began to equate echo chambers and media polarisation with those of far-right views, which, while this is not incorrect, echo chambers as a concept exist regardless of political standpoint. It is when I widened my knowledge of the inherent human behaviours that lead to these echo chambers and their detrimental effects that I furthered my view of all ideologies, beliefs and the actual damage of the consequential impacts of exclusion and isolation on cultural harmony and society as a whole. These assumptions demonstrated my initial unconscious biases, and it was vital for me to understand the underlying processes involved in my topic area and the effects on all individuals.

With a further understanding of the micro, meso, and macro levels of my topic area, my primary research focused on the micro impacts of echo chambers on socialisation and incited exclusion in peer groups, along with the macro levels of the interplay of institutional and government responsibility often overlooked in the conversation of echo chambers. I first conducted interviews with an expert and another individual, both a part of Generation X, and providing valuable insight into my topic area including micro experiences as individuals and the societal influences, reinforcing my hypothesis and the secondary findings. After completing my two interviews, my further primary research methodologies of personal reflection and content analysis were better utilised in order to gain broader insight into topic areas that were not initially considered prior to findings from interviews.

Through the completion of my PIP I have determined the importance of ethical media production, consumption and the interdependence between the two, vital to ensure socialisation, political tolerance and social and cultural literacy in the world of online politics and consequential echo chambers.

Chapter 1

The Unethical Force of Algorithmic Mechanisms

The digital age has welcomed many changes in all areas of our lives, with new technologies paving the way for shifts in communication between individuals. News and information can be accessed simultaneously via multiple search engines on various applications, encompassing a wide selection of news reporting at all times. Therefore, no political viewpoint is banned from accessing the news filtered to their online interactions. This doesn't feel so harmful considering we are all under some kind of political influence. However, the degree to which we are aware of this sovereignty is detrimental to our media culture through our emerging technologies.

The term 'echo chamber' is often attributed to Sunstein and his findings regarding the underlying corruption that creates and feeds the online communities partaking in the extreme deliberation of political issues and contemplations. Sustein's primary concern is the consequential social fragmentation and exclusion instigated by the algorithms feeding these polarising concepts of media conformity and, or non-conformity[1]**.** The interviewee, a member of Generation X, does not partake in social media use. He has observed the rise and fall of social media technologies as a politically active individual, with the corruption he observed as 'inevitable by the design of the algorithms'[2]. In addition, expert Interviewee Dr Molitorisz highlights the emergence of individuals looking to social media platforms such as Instagram or TikTok, unpacking the issues incurred due to this type of media consumption and avid commercialisation, and the grey area created by these platforms' algorithms[3]. International corporations hold calculated yet classified technological mechanisms forming the news media consumed and commercialised to individuals of all ages, all over the world. As global news and information become increasingly accessible among various social media platforms, technology companies' prime motive remains consistent, with the commodification of watch

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[1] B Kitchens, SL Johnson, & P Gray, 'Understanding Echo Chambers and filter bubbles: The impact of social media on diversification and partisan shifts in news consumption'.in *MIS Quarterly*, 44, 2020, 1619–1649,https://www.darden.virginia.edu/sites/default/files/inline-files/05_16371_RA_KitchensJohnsonGray%20Final_0.pdf [accessed 21 May 2024].
[2] Primary Research: Interview Generation X
[3] Primary Research: Interview with Dr Molitorisz

time and undivided attention being their 'money-making tool', remaining confined to the business model to keep people engaged, competing for the consumer's maximised usage and consumption, with this ideal ingrained in the organisational culture of technology companies.

How does Google make money? Instragram? Tiktok? Their users are the product. In an attention economy, watch time and 'clicks' are major driving forces behind how and when tech companies make money, with most applications holding the attractiveness of being 'free' to the consumer[4]. As users scroll and interact with content, political or not, monitoring mechanisms consider this and manipulate content accordingly[5]. This is directly related to the issue of algorithms. These algorithms are generally unregulated within Australia. Expert Dr Molitorisz highlights that the Australian Competition & Consumer Commission (ACCC) recommended throughout their preliminary report of the Digital Platforms Inquiry in 2018 that Australia should have an algorithmic regulator, which mandates a degree of transparency for digital platforms and their algorithms, also giving users some control and choice over how their algorithms impact their usage[6]. While this may be a possibility in the near future, the current lack of control from government bodies allows for the free reign of technology institutions and unethical manipulation of their users. Expert Interviewee Dr Molitorisz states that the mechanisms within algorithms are generally unclear, with companies relying on a 'black box' of their systems[7], limiting the awareness among individuals of the issue at hand. While there is not yet a clear consensus on how these algorithmic mechanisms welcome and reinforce echo chambers among individuals, there is a correlation between the habit of corrupt news consumption and unethical behaviours of tech companies as they capitalise on human desire for an insular, alike community, whether it be online or in-person.

A major driving force for these relations between people of similar political views within the online space revolves around the deep yearning for connection primarily of shared beliefs and the dopaminergic systems that hold human motivation and our neurological reward systems. Dr Lembke explores the basic biological need for connection between people, with this 'directly affecting the release of dopamine, with millions of years of evolution behind that system within the mind'[8]. Additionally, from the perspective of Generation X, there is an

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[4]Primary Research: Content Analysis - The Social Dilemma Film
[5]K. Coleman, 'How Do Algorithms Work?', Status Labs Blog, 2024,
https://statuslabs.com/blog/how-do-algorithms-work [accessed 1 July 2024]
[6]Primary Research: Interview with Dr Molitorisz
[7]Primary Research: Interview with Dr Molitorisz
[8] Primary Research: Content Analysis - The Social Dilemma Film

everlasting desire to have one's political views validated due to the evoking of positive emotion, with this then triggering several cascades in one's nervous system[9]. While dopamine is involved, the sensation can become quite addictive to an individual. In terms of the meso and macro social function of the process, people naturally gravitate to others who agree with them - it is something deeply ingrained in our social nature as humans[10], enhancing one's sense of inclusion in society, whether it be before social media from the view of a person within Generation X or a person among the digital age of Generation Z. These insights align with Lembke's findings for the desire to connect with those in our micro, peer groups[11]. Yet, if unfulfilling, the tendency to gravitate toward those of similar worldviews within meso online interaction then leads to a sense of self-inflicted social exclusion and intellectual isolation[12].

Although often overlooked by the average consumer, the role of tech companies in forming and maintaining echo chambers is significant. These companies, while remaining businesses with the primal goal of maximising their profits and power within their space, inherently create manipulative internal mechanisms and then prompt the creation and maintenance of echo chambers. This tends to occur through not only the establishment of complex, 'black-boxed' algorithms but also the manipulation of the content within their platform[13]. One of the first presidents of Facebook, states that "there is an exploitation of vulnerability in human psychology by the tech giants"; he speaks to the idea that the creators of these platforms are aware of this unethical behaviour and continue to partake in these immoral practices regardless of impacts on individuals and the macro world[14]. Companies that feed into media polarisation and the maintenance of echo chambers that then destabilise and erode online interaction[15], creating division between individuals among online meso-interactions and in-person micro-interactions.

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[9] Primary Research: Interview Generation X
[10] Primary Research: Interview Generation X
[11] A. Lembke, Dopamine Nation: Finding Balance in the Age of Indulgence (London: Dutton, 2021)
[12] B. Kitchens, SL Johnson, & P Gray, 'Understanding Echo Chambers and filter bubbles: The impact of social media on diversification and partisan shifts in news consumption'.in *MIS Quarterly*, 44, 2020, 1619–1649,https://www.darden.virginia.edu/sites/default/files/inline-files/05_16371_RA_KitchensJohnsonGray%20Final_0.pdf [accessed 21 May 2024].
[13] Primary Research: Interview with Dr Molitorisz
[14] Primary Research: Content Analysis - The Social Dilemma Film
[15] Primary Research: Content Analysis - The Social Dilemma Film

Chapter 2

Social Media - The Vehicle for Spreading Dangerous Rhetoric

As individuals grow up, their family, environment, and experiences shape their worldview and belief systems, with slight changes occurring as these socialising agents shift throughout time. The internet has expanded, encompassing a wider range of our interactions, it has widened our political environment and our ways of communication. The widening of one's political environment is vital for individuals to sustain social and cultural literacy while solidifying their own views, possibly morphing their existing views with newfound ideologies and worldviews. This allows for a politically active and conscious society, which is positive the development of communities at all levels of interaction. However, as the online political environment becomes increasingly fundamental to our political interaction, the extremity of these views and damaging rhetoric being spread also intensifies, disrupting individuals' inherent worldviews and values. This concept then leads to a sense of confusion and fear, damaging to the formation of socially and culturally literate micro and meso interactions, then manifesting in the cult-like isolation of individuals.

A key feature of echo chambers encompasses the consequential manifestation of isolation as an individual conforms to the extremist tendencies within these online chambers, similar to the dynamics within a cult. This occurs through the self-organisation of political groups when an individual may feel threatened by real-life or online conflict regarding their beliefs; this concept within the online space accounts for ethnic antagonism and tribalism[16] which often precedes social unrest or even violence within communities, leading to social exclusion and conflict[17]. Real-life consequences of this process were seen in Myanmar in 2017, where Facebook's algorithms supercharged the spread of hateful content, becoming a driving force behind violence and crimes toward the Rohingya people in the region. Following the tragic event, Amnesty International's Secretary General, Agnès Callamard, publicly addressed that "in the months and years leading up to the atrocities, Facebook's algorithms were intensifying

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[16]J.Ramseyer and E. Rasmusen, 'Judicial Independence in Civil Law Regimes: Econometrics from Japan' (1997) Coase-Sandor Working Paper Series in Law and Economics, No. 542 https://chicagounbound.uchicago.edu/law_and_economics/542/ [accessed 12 June 2024].
[17] Primary Research: Interview, Generation X

a storm of hatred against the Rohingya". Meta, as a powerful technology institution, capitalised off the existing societal division in Myanmar, furthering social unrest and inciting violent acts, profiting from their hate-spiralling algorithms that commodified anti-muslim content on the platform[18].

How the cult-like characteristics of echo chambers can be modelled is through the existent Brandle/Heisler/Stiegel model of undue influence, 'user is kept unaware, isolated from others and given 'silent information', creating incentivised fear, preying on human vulnerabilities and a sense of dependence'[19], essentially cementing fear-based, selective exposure to attitude consistent information moving users toward a more extreme belief indicated by their own pre-existing worldviews. Various implications incur in this process, with the social divide separating and isolating individuals based on their political beliefs, often forcing people to consider the narrative of "how can they think that when I have seen information proving this?"[20] The answer to this contemplation is echo chambers. The insider-outsider isolation dynamic is a key model of this process and can be captured by the idea that insiders are the agents with whom share the belief and trust in an ideology or conspiracy, and the outsiders of the echo chamber, conspiracy, or ideology are agents who threaten the insiders similarly to the physical and social exclusion seen in cults[21]. This exists and is reinforced by the disparity of information and media individuals consume and look to consequential of their place within the online political communities they are a part of, regardless of political standpoints. The inherent issue with this process is social exclusion. Humans are wired to exist in community while propagating, yet, the incurred exclusion and isolation of echo chambers blocks this essential process[22] of social and intellectual development. Further on the cult-like tendencies of echo chambers, a hypothetical dissonance between the way in which an individual views the world and the way those in our environment do tends to cause a shift in our perception of that person as a whole individual. This conflict then causes an internalised resentment toward said individual, furthering the isolation as a result of political polarisation. The implications of this process lie within the intellectual isolation of individuals that would not occur otherwise, and while interactions with opposing political ideologies is a vital process for

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[18]Amnesty International,"Myanmar: Facebook's Systems Promoted Violence Against Rohingya, Meta Owes Reparations – New Report," Amnesty International, September 29, 2022, https://www.amnesty.org/en/latest/news/2022/09/myanmar-facebooks-systems-promoted-violence-against-rohingya-meta-owes-reparations-new-report/ . [accessed 19 June 2024].
[19] Primary Research: Content Analysis: Your Undivded Attention Podcast
[20] Primary Research: Content Analysis: Your Undivded Attention Podcast
[21]P. Holur, Which side are you on? Insider-Outsider classification in conspiracy-theoretic social media, 2022 https://aclanthology.org/2022.acl-long.341.pdf [accessed 19 June 2024].
[22] Primary Research: Content Analysis: The Social Dilemma Film

individuals to solidify or shift their own views, it is the way in which this process occurs that drives the outcome of online political groups and echo chambers.

The issue at the forefront of consumer interaction with online political echo chambers lies in the lack of ethical consideration and practice within the news space. As individuals consume and interact with politics via technologies, the differentiation between news and opinion articles has become increasingly abstract, with journalism within the digital age pushing the fine line between freedom of media and the ethical responsibility regarding the public's welfare[23]. A notable outlook of how journalists are widely expected to partake in ethical news and political has been outlined by the 'Society of Professional Journalists' in the United States, with truth, honesty and access to sources of information at the forefront of expectations as journalists write to the general public[24]. This concept is vital to the trust between an individual and the person behind the news they consume. However, with the oversaturation of online news and politics in the current digital climate, it is clear journalists are feeling the pressures of media consumption and commercialisation. This has led to a warped, unethical perception of the importance of truthful news and political discussion, with the prime goal of public attention clouding moral compasses embedded within news institutions.

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[23]L. Oso, "Journalism ethics: the dilemma, social and contextual constraints," 2024[accessed 13 June 2024] https://www.tandfonline.com/doi/full/10.1080/23311886.2024.2328388.
[24]Society of Professional Journalists, "SPJ Code of Ethics," Society of Professional Journalists, [accessed June 15, 2024], https://www.spj.org/ethicscode.asp.

Chapter 3

Friend Bubbles and Filter Bubbles - Echo Chambers and COVID-19

The COVID-19 pandemic was arguably the most disruptive and significant event in the past decade, particularly in the lifetime of Generation Z[25]. Individuals' lifestyles were turned upside down, with forced isolation leading to the lack of socialisation and the narrowing of worldviews. Divergent opinions on government reactions, the validity of the virus, and its severity circulated in the media and led to differing viewpoints amongst individuals in micro and meso interactions. In the global context, macro discussions around blame and inequalities in vaccine access circulated the minds of individuals and provoked societal conflict.

Suddenly, a world event became a capitalised phenomenon for media corporations to capture people's time, attention, and energy as they exploited a captive audience with controversial outlooks from every point of view, including views of pro-vaccine, conformity aligned with government and anti-vaccine, pro-nonconformity, consequently encouraging a cultural divide between individuals based on their worldviews. In a time of distress and uncertainty, people sought familiarity, comfort, and 'tribe'. This continued desire manifested in the division between echo chambers, which developed due to the intrinsic human desire for certainty that remains a fundamental continuity within the mind. This can be explained scientifically by the dopaminergic system that underpins human motivation and reward systems[26]. This process is central to the formation and crystallisation of beliefs and forces people of different views further and further apart within professional contexts such as government, institutions and micro-interactions between family members[27]. While all individuals had the same desire to find a consistent concept, worldview, or community to make them feel safe, naturally, echo chambers were formed. This process separated individuals from their traditional meso communities and relationships, with further alliance and conformity as a shift into uncertain circumstances took place within such a politicised world event. The pandemic was not only a

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[25]Australian Institute of Health and Welfare, COVID-19 and Young People, AIHW, 2023, https://www.aihw.gov.au/reports/children-youth/covid-19-and-young-people [accessed 9 July 2024]
[26] Primary Research: Interview - Generation X
[27] Primary Research: Personal Reflection

global health crisis but a 'money-maker' for news institutions to commodify the time on individuals' hands and the fear behind it[28].

The influence of COVID-19 on media and worldviews was profound, leading to a surge in conspiracy theory groups on social media. With virtual communication as the only option, the pandemic became a fertile ground for extremist media subgroups and existing conspiracy theories to infiltrate the thoughts of individuals. A detrimental consequence of these subgroups was a heightened distrust of both authoritarian figures and the government, a sentiment also fueled by sociodemographic factors and the increased challenges faced by institutions and those in power in prioritising the well-being of individuals[29]. Amidst this growing distrust of government power, there was a pervasive sense of confusion and a rise in political tribalism as individuals felt their worldviews were threatened by the unsettling uncertainty of the pandemic and the future of society due to the drastic, prolonged lifestyle changes[30]. A primary example of the surge in conspiracy theorist ideologies was the rise in international interest in QAnon amid the pandemic. The underlying beliefs of the group align with far-right leaning political ideologies[31] culminating in the overall distrust toward the mainstream, democratic media outlets and governments, with the consequential 'insider-outside' dynamic previously outlined, causing a self-inflicted exclusion from society's political majority. Although present in the online space since 2017, the conspiracy's popularity increased significantly during COVID-19. In the context of Facebook, in March 2020, the number of Facebook users engaged in QAnon discussions or subgroups increased dramatically, with participating users frequently using or engaging with content featuring hashtags including 'pandemic' and 'stop vaccination'[32]. These harmful interactions led to the exclusion and separation of individuals within micro contexts, those with differing views were made to feel isolated as a result of this disparity, regardless of standpoint on the political spectrum. Furthermore, social and cultural literacy was impacted as conflict sat at the primary point of interaction between individuals, causing exclusion and societal separation[33]. The

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[28]Primary Research: Personal Reflection
[29]T. Titchkosky & R. Michalko "Beliefs in Conspiracy Theories and Online News Consumption during the onset of the COVID-19 pandemic", Journal of Qualitative Disability Studies, vol. 1, no. 1, 2023, https://journalqd.org/article/view/3318/436 [accessed 19 June 2024]
[30]Primary Research: Personal Reflection
[31]K. Roose (2021). 'What Is QAnon, the Viral Pro-Trump Conspiracy Theory?' The New York Times. Available at: https://www.nytimes.com/article/what-is-qanon.html [Accessed 22 June 2024].
[32]A Truzzi, P. Tessari, & M. Pietroni (2022). 'The Dark Side of Social Media: Understanding the Spread of Anti-Vaccination Beliefs During the COVID-19 Pandemic'. Frontiers in Psychology, 13, Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9325658/ [Accessed 22 June 2024].
[33]Primary Research: Personal Reflection

primary factor of how this exclusion occurred lies within the internal application of political identity and the inherent relationship between one's worldview and how one chooses to socialise in these political environments. In COVID-19, individuals were in a 'survival' mindset, trying to identify truth in a challenging time while conflicting cemented beliefs and ideologies coexisted, meaning the flexibility within the political spectrum of worldviews became a problematic pursuit, furthering the distance between those conforming and rejecting the ideals of government power.

While phenomena across social media are often attributed as unharmful due to their superficial connotations as independent meso or macro interaction only to hold consequences within the online community in which they exist, as discussed previously, this is not the case[34]. Amongst the issues of insider-outsider social exclusion and online political conflict, it is the damage of conspiratorial thinking and the consequential cabal of people who had the desire to take over the world as a result of dangerous extremist echochambers[35], which then allowed for an increase in harmful thinking including the rise in anti-Asian hate across social media and the inciting of verbal and physical violence within real-world micro and meso interaction. This influx of prejudice was fed by scapegoating across social media platforms as individuals attempted to gain answers and comfort in a mentally challenging time, yet while doing so, fear-mongering and echo chambers allowed for increased xenophobia across the media. These dangerous subgroups existed between the cracks of conversations regarding the COVID-19 pandemic, with the anti-Chinese rhetoric sparking a spiral of racist remarks by political leaders, including ex-US President Donald Trump, labelling COVID-19 as the 'Chinese Virus'. These harmful discussions and public commentary have coincided with the increase in violent attacks across the world, including two women attacking Chinese students in Australia, punching and kicking one and yelling, "Go back to China" and "You immigrants." as a result of the incited violence across social media platforms and opinion news articles[36], solidifying the power media holds within modern society and primarily throughout COVID-19. Further, regarding anti-Asian violence in Australia, the Asian Australian Alliance conducted a survey focusing on incidents of prejudice and racism linked to the pandemic. Asian-Australian respondents recorded 178 incidents nationwide during the

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[34]Primary Research: Interview - Generation X
[35]M. Murphy 'Increase in Conspiracy Theories Online During Pandemic, Research Finds'. ABC News. (2022) Available at:
https://www.abc.net.au/news/2022-04-08/increase-in-conspiracy-theories-online-during-pandemic-research/100976194 [Accessed 22 June 2024]
[36]Primary Research: Interview - Generation X

first two weeks of April 2020[37]. These statistics are alarmingly high, speaking to the dangers within echo chambers built on the precedents of misinformation and violence, damaging to cultural harmony and literacy within challenging circumstances such as COVID-19.

The challenging period of COVID-19 isolation saw various lifestyle changes, with individuals forced to interact via social media and consume news of isolation and political uproar[38]. The formation of echo chambers was a natural yet damaging consequence, as individuals faced misinformation, the unethical commodification of global fear and an increase in the politicisation of prejudice, each factor culminating in individuals' social exclusion and divide.

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[37]Human Rights Watch, 'Covid-19 Fueling Anti-Asian Racism and Xenophobia Worldwide', Human Rights Watch (2020)
https://www.hrw.org/news/2020/05/12/covid-19-fueling-anti-asian-racism-and-xenophobia-worldwide
[accessed 1 July 2024]
[38]R Clair, M Gordon, M Kroon 'The effects of social isolation on well-being and life satisfaction during pandemic' Humanit Soc Sci Commun 8, 28 (2021). https://doi.org/10.1057/s41599-021-00710-3 [accessed 1 July 2024]

Chapter 4

Escaping the Chamber

The concept of echo chambers and media polarisation within our daily lives is often overlooked by the average media consumer[39]. Algorithms and cookie settings covertly influence our attention as it gets grasped by social media platforms. There are proposed strategies for consumers to escape the detrimental effects and creation of adverse echo chambers as society develops[40]. Whether an individual wishes to increase their awareness of natural echo chambers they may be a part of, or they are concerned about extremist tendencies by someone within their micro world, navigating how to 'escape' is challenging with individuals as their internal power gets trapped by the conforming power of echo chambers and the media.

In order for individuals to detach themselves from the dangerous effects of echo chambers, shifts within an individual's cognitive, social and behavioural understanding are detrimental. Firstly, awareness is a significant driving force from the lens of cognitive changes[41]. When an individual identifies their unconscious cognitive biases and becomes aware of the impact on their interactions with their micro and meso environment, overcoming such biases becomes an eased approach. With a heightened awareness of our thought patterns and habitual responses as a consequence of media influence, individuals are ultimately capable of taking action to reduce the undue influence echo chambers have on the psyche[42]. On dismantling the power echo chambers hold on one's identity and worldview, forecasted future breakthroughs in the intersection of neuroscience and social psychology will allow for further research regarding dopaminergic reward systems and motivations within the mind in the context of media consumption, allowing for a more comprehensive understanding of how echo chambers are formed. With a partnered understanding of the ways in which individuals can reconfigure how they choose to interact among the online space of media and echo chambers

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[39]Primary Research: Personal Reflection
[40]Primary Research: Interview - Generation X
[41]C Avin, H Daltrophe & Z Lotker 'On the impossibility of breaking the echo chamber effect in social media using regulation'. *Sci Rep* 14, 1107 (2024). https://doi.org/10.1038/s41598-023-50850-6 [accessed 8 July 2024]
[42]A. Domb (2021) 'Escape the Echo Chambers', The Beautiful Truth, https://thebeautifultruth.org/life/psychology/escape-echo-chambers/ [accessed 8 July 2024]

to minimise damage to social harmony and worldviews of an individual[43]. As professionals gain insight into these systems, ethical measures between producers and consumers of media become increasingly apparent and, therefore, achievable for future directions.

Furthermore, through an increased understanding and application of media literacy, critical thinking and responsibility when participating as online news and consumers, individuals can dismantle the innate power media institutions and echo chambers have over their lives and worldviews[44]. Media literacy is vital to separate and dissect news in order to interact ethically within the relationship of the consumer and the media, and this involves the investigation into the sources and credibility of, not just doubt; this allows individuals to identify truths and dissect false rhetoric that often goes unnoticed, leading to increased awareness and decrease in polarisation as a result of consumption of misinformation[45]. This allows individuals to detach from the echo chambers in which they may find themselves. Within ethical news lies a collaborative, relational responsibility of news institutions, journalists, and the public consuming the content to ensure bias, credibility, and satire are clear and accessible by all parties at any time. With this increased awareness, individuals can dissect the ethical implications and consequences of the age of digital news and media.

The process of 'escaping' echo chambers involves the interdependence of institutions and individuals, with the various responsibilities of both parties intertwining to implement a solution to the societal crisis of exclusion between individuals and their micro world, the consequence of damaging echo chambers[46], with this exclusion seen in two main areas, from social settings within micro and meso interaction and broader society in meso and macro interactions. These dangerous circumstances may interplay with the concept of self-inflicted exclusion similar to previously discussed insider-outside dynamics or the collective distrust toward an individual on the basis of their views. However, if counteracted by individuals and institutions, this exclusion has the opportunity to be avoided to solidify social harmony. Institutions primarily involved in the improvement of ethical news production include government and legislative power, with changes in these factors influencing the way news

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[43]Primary Research: Interview - Generation X
[44]Primary Research: Personal Reflection
[45]K. Rogow, Media Literacy for Students in a Digital Age, Carnegie Corporation of New York, https://www.carnegie.org/our-work/article/media-literacy-for-students-in-a-digital-age/. [accessed July 9, 2024]
[46] Christopher Meyers, Journalism Ethics: A Philosophical Approach (New York: Oxford University Press, 2010). [accessed July 18, 2024]

and technology institutions interact with their consumers and wider society[47]. In terms of news institutions, it is vital for access to credibility and accuracy to be readily available to consumers of news in order to maximise the possibility of individuals holding critical discernment toward the media; this is seen in practice within social media app Instagram, with warnings on news that may be untrue or hold false rhetoric, increasing the critical eye of the consumer rather than blind trust toward the media and news institutions[48].

Although a critique of this revelation lies within its formation as a form of artificial intelligence, with some truthful information being listed as misinformation, this may lead to an internal conflict within an individual's psyche; some may say this allows for a further understanding and awareness of misinformation within mass media yet this can also be seen as damaging as unnecessary distrust toward mass media may lead to furthered media polarisation and self-inflicted social exclusion. With a refinement of the AI technology behind this system, there could be an improvement of this initiative within the platform of Instagram, leading to increased ethical consideration and responsibility as an institution. On possible shifts in laws and legislative power, proposed solutions by Dr Molitorisz are current processes seen in Europe. Europe has enacted the Digital Services Act, which mandates a degree of transparency for digital platforms and their algorithms and gives users some control and choice over how their algorithms work. For very large online platforms, it lets users opt out of recommendations based on profiling[49]. This is a promising initiative that, if implemented worldwide, may allow for not only increased awareness of consumers but cemented legislative standards technological institutions are expected to and enforced to follow in order to align with laws and government regulations[50].

Ultimately, inherently ethical actions are ideal. However, when considering media and journalism as a business with a prime goal of profit, the power and authority of regulations lie within incentivised ethical interaction, within this process, 'escaping' the damaging effects of echo chambers and consequential social exclusion and isolation becomes an eased process, assisting the harmony between ethical consumption and creation of news.

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[47]Primary Research: Personal Reflection
[48]K. Bell, "Instagram introduces false information labels," *Mashable*, July 11, 2023
https://mashable.com/article/instagram-false-information-labels. [accessed July 18, 2024]
[49]Primary Research: Interview with Dr Molitorisz
[50]Society of Professional Journalists, "SPJ Code of Ethics," Society of Professional Journalists, [accessed June 15, 2024], https://www.spj.org/ethicscode.asp.

Conclusion

I began this PIP believing I had already cemented my beliefs on my topic area of echo chambers and their interplay within society. However, what I discovered was my own unconscious biases, including this view itself. I uncovered the impact algorithmic bias and online politics have on my own views on individuals within my environment and macro world. Whilst my hypothesis was predominantly proven, I discovered that the social and behavioural processes behind the creation and maintenance of echo chambers are less straightforward than I had initially believed; the inherent reward systems and dopaminergic systems within the mind contribute significantly, yet I had seen the process as only a social process. I was also made aware of my own biases toward the concept as an individual brought up in a politically left-wing household, with my values and ideologies influenced by this, yet this consideration also allowed me to uncover my own nuanced perspectives that I may not have initially held close to my worldviews.

My hypothesis of echo chambers having detrimental impact on socialisation and isolation among individuals and societal worldviews was supported by my primary and secondary findings. Primary research methodologies, particularly interviews and content analysis, revealed the cognitive processes that impact socialisation and exclusion among individuals, allowing for models such as insider-outsider dynamics, cult-like characteristics and dopaminergic reward systems supporting the inherent human desire to find one's 'tribe' of values and beliefs, further feeding into the separation between those of difference. Secondary research played a major role in real-world events relevant to my topic's interplay with society, including contexts of COVID-19 and Myanmar, exploring the inciting of violence on the basis of dangerous rhetorics within echo chambers on social media. These examples were vital to support my hypothesis and contribute to the relevance of my topic to the societal goal of social and cultural literacy, awareness, and harmony.

An invaluable aspect of my PIP was the focus on the future directions of the topic area. Primary and secondary research support the idea that society has faced issues of exclusion, conflict and unethical commodification. However, with individuals, institutions and

government coming together, changes can be made to maximise ethical behaviours in the media, ensuring individuals can overcome the unethical implications of misinformation. These findings have been extremely significant in my own contemplation of the future directions of my topic area as a result of my research.

Completing my PIP has truly been a journey, widening my knowledge, awareness and beliefs regarding echo chambers, media polarisation and the contributing factors to these processes. I have gone through the experience of enlightening explorations into aspects of society and culture I had not contemplated previously, ultimately contributing to my awareness of self, the world, and the relationship with technologies within our modern context. This newfound understanding has allowed me to grow as not only a researcher, but an individual, gaining understanding into the interplay of my own worldviews and identity with the way in which I view others and my micro environment, contributing to a widened understanding of the importance of empathy and harmony with individuals of differing views to my own.

Resource List

Primary Research

Content Analysis -

The Social Dilemma Documentary/Film
TED Talk: 'Echo Chambers: How we all contribute to online echo chambers' by Caroline Zeeman
Podcast: Your Undivided Attention Podcast - Episode 51: How To Free Our Minds with Cult Deprogramming Expert Dr Steven Hassan

The content analysed was 'The Social Dilemma' documentary and the TED Talk, 'Echo Chambers: How we all contribute to online echo chambers' by Caroline Zeeman and podcast: Your Undivided Attention Podcast - Episode 51: How To Free Our Minds with Cult Deprogramming Expert Dr Steven Hassan. The film's primary focus is delving into how technology companies, primarily social media corporations, have contributed to the corrupt nature of echo chambers and fake news. The film features experts in the field, such as Shoshana Zuboff (author 'The Age of Surveillance Capitalism') and ex-employees of these tech companies, such as Tristian Harris (ex-Google employee). The source's credibility is verified by the number of experts and first-hand encounters with echo chambers and corrupt impacts on worldviews by experts in the field. The TED Talk speaker discusses the ethics of media and journalism, discussing how news can and should be monitored and written with ethics at the forefront rather than monetary gain. While the talk offers valuable, first-hand insight, it also exhibits certain limitations, such as Caroline's lack of expertise or experience in the field as a young person. Regarding the Podcast, I aimed to tabulate primarily qualitative findings regarding the interplay between cult dynamics and social processes within echo chambers. Each mention of social processes related to the isolation and exclusion of individuals was tabulated, with a coding sheet assisting with this to identify each aspect of information. In the podcast, Dr Steven Hassan delves into his own experience as an ex-cult member. At the same time, Tristan Harris and Aza Raskin discuss both Hassan's experience and the relationship between cult-like dynamics and social media and echo chambers. As Dr

Hassan is an ex-cult member, there is a present bias regarding his view on the experience within a cult; this is important to note, along with his credibility as first-hand experience is discussed. Further, Tristan Harris and Aza Raskin's input is generally aligned with Hassan's views, and this should be considered a non-challenging discussion that furthers the bias present within the source. It is also worth noting that all sources' perspectives are from Americans who hold very left-wing political beliefs, displayed through discussion of past President Donald Trump's election in a negative light. This may limit the range of views captured within the content analysis, and while left-wing democratic views align more closely with the general ideologies of ethical media consumption, a differing opinion within the discussion of the topic would have been beneficial, although not essential, to capture credible, accurate findings.

Interviews -

Dr Sacha Molitorisz: University of Technology Sydney Lecturer (Centre for Media Transition)

Generation X Interviewee: (non-social media user) Business owner (Professional Development).

The interviews were conducted with an expert in Media and Law and a business owner who is a part of Generation X and does not partake in social media usage, both capturing an outside perspective of people seeing the entire lifespan of social and online news media from its beginning to now. Each interview involved five main overarching questions, with qualitative elaboration encouraged before the interview commenced. After completing the interviews, I gained deeper insight, which allowed for broader knowledge for myself and was useful for my PIP, with a deeper investigation into time, technologies and worldviews within the context of my topic. My interview with a member of Generation X contributed to a greater understanding to the cross-cultural component of generations throughout my PIP. Both interviews allowed for further insight into the ethical implications incurred by algorithms in online news and their effects on individuals' psyches; this assisted with a new lens of my topic, improving the spectrum of information throughout my PIP. My intentions within my interviews were to gain knowledge from both an expert and someone from Generation X. While it would have been beneficial for my expert to be of a different generation, he was also a member of Generation X; this should also be considered as while

both information from interviews was reliable and accurate due to their relevance and knowledge of the topic, different findings may have come out of an interview with a different generation, which should also be considered. The results from the two interviews were highly applicable to my secondary findings and my PIP central material, thus reinforcing validity. After conducting interviews and primary research, a range of information was applied to my PIP. Interview findings allowed for strengthening the findings of secondary and primary research throughout my central material, easing the information regarding current and future directions of the interplay of individuals and technology in reference to my topic.

Personal Reflection -

With the cross-cultural focus of my PIP between Generation X and Z, my perspective as Generation Z was useful in recognising my interactions with echo chambers and online media while also discussing the interactions within my micro and meso interactions. Considering the nature of a personal reflection, bias was somewhat inevitable. Yet, I made an active effort to capture my personal experience rather than my own opinions on the topic area; this also allowed for my experience, compared to my cross-cultural focus, to contribute to the complexity of my topic, which was essential to the intentions of my PIP. Although my personal experience as Generation Z is extremely valuable to my PIP, it is also important to acknowledge my own biases and the driving factors of my views, with progression and critique of systems being a common occurrence within my social surroundings, therefore leading to deep contemplation about aspects other individuals of different contexts may overlook. The personal reflection just illustrates my individual view on my topic. It is important to consider this when contemplating the accuracy of my research method. While it has been beneficial to my cross-cultural component and my PIP as a whole, it does not capture a wide view or a universal truth of the topic. Personal Reflection as a primary research method has been extremely beneficial to my PIP and allowed for a valid source of information regarding my interactions with my topic.

Secondary research

Books:

Lembke A, Dopamine Nation: Finding Balance in the Age of Indulgence (London: Dutton, 2021)

Dr Anna Lembke's '*Dopamine Nation: Finding Balance in the Age of Indulgence'* deals with the interplay of dopamine and the mind, in the modern context of the 21st century, where individuals are flooded with information and stimulation from technology and the consequential addiction individuals may experience. Dr Lembke is a highly credited psychiatrist and Professor at the Stanford University School of Medicine, her experience with assisting with addiction is highly recognised in her field, thus her findings are extremely credible and provide crucial insight into the cognitive influence on the creation and maintenance of echo chambers within the brain. Due to her extensive research in the field, her work provides high levels of validity and credibility making it extremely valuable to my PIP. In terms of bias, Dr Lembke's clinical experience may influence the way in which she discusses addiction and her critical viewpoints on dopamine overstimulation, as she aims to deter and make her audience aware of such. A limitation of this source lies within the broadness of the topic area, while the book allows for extensive, credible insight into the human brain and the processes relevant to echo chambers, the book itself does not explicitly state the relevance to echo chambers, this may limit how useful and applicable the source is to the entirety of my PIP.

Meyers C, Journalism Ethics: A Philosophical Approach (New York: Oxford University Press, 2010). [accessed July 18, 2024]

Christopher Meyers work 'Journalism Ethics: A Philosophical Approach' consists of the dilemmas faced by journalists as ethical implications impact their professional practices in modern contexts, all through a philosophical approach, this is done via key ethical theories, including deontology, consequentialism, and virtue ethics. Meyers is a highly respected academic in the field of journalism ethics, and he has many journals on similar subject areas,

showing his credibility and the validity of his outlooks on the topic area. The works validity is furthered as the ethical theories are considered, majority of informatio presented is existing frameworks that Meyers has skillfully applied. The book may hold some bias with its 'philosophical approach' lying within more abstract consideration of the topic area rather than data-focussed which may also be relevant. A possible limitation as a source lies within the date of publication, with the source being published in 2014, content may not be as relevant to recent contexts as a source written in the past five years, which was vital to consider when applying information to my PIP.

Online Articles:

Amnesty International, "Myanmar: Facebook's Systems Promoted Violence Against Rohingya, Meta Owes Reparations – New Report," Amnesty International, 2022 https://www.amnesty.org/en/latest/news/2022/09/myanmar-facebooks-systems-promoted-violence-against-rohingya-meta-owes-reparations-new-report/ **[accessed 19 June 2024]**
This source 'Myanmar: Facebook's Systems Promoted Violence Against Rohingya, Meta Owes Reparations' delves into the ethical dilemma of Facebook/Meta's influence on the civil war in Myanmar, criticising inciting of violence, consequence of Facebooks algorithms and the companys seemingly unethical priority of profit. The source's author is unknown and just labelled as Amnesty International as an organisation, known for their advocacy, this is vital to consider in reference to the bias of the source. The article features sources such as data analysis, interviews and cross referencing with other sources, making it credible yet a known author would increase this drastically. A limitation to consider is the potential for confirmation bias present in the article, with the prime goal to cricise facebook, this source may oversimplify the issue at hand and is important to consider. This source was used as a real-world example in reference to my PIP and while issues of bias are vital to acknowledge, they do not hinder the assistance to my PIP.

Avin C, On the impossibility of breaking the echo chamber effect in social media using regulation. *Sci Rep* 14, 1107 (2024). https://doi.org/10.1038/s41598-023-50850-6 [accessed 8 July 2024]
This source 'On the impossibility of breaking the echo chamber effect in social media using regulation' analyses how social media algorithms and user behaviors contribute to the formation and reinforcement of echo chambers with its content underpinning the entirety of my topic area of echo chambers, proving applicable to my topic area to a great extent. The

present peer-review process and authors expertise in the area of social media and regulation allow for credibility of the article. In terms of bias, the authors focus on the limitations of regulation without fully exploring alternative solutions or strategies to address proposed issue may lie as a limitation as a stand-alone article.

Australian Institute of Health and Welfare, COVID-19 and Young People, AIHW, 2023, https://www.aihw.gov.au/reports/children-youth/covid-19-and-young-people [accessed 9 July 2024]

This source provided by Australian Institute of Health and Welfare covers analysis of the impact of COVID-19 on young people in Australia, vital to consider for my continuity and change component and one of my PIP chapters. A credible source such as this as a government site was vital to apply in my PIP especially when discussing aspects associated with health and wellbeing of individuals. Very little bias is present yet interpretation of findings before publication is difficult to decipher and must be considered when evaluating this source in relation to its application to my PIP.

Bell K, "Instagram introduces false information labels," *Mashable*, July 11, 2023 https://mashable.com/article/instagram-false-information-labels. [accessed July 18, 2024]

This article "Instagram introduces false information labels" is an example-specific source that allowed for insight into a very small aspect of my PIP, meaning high levels of credibility where not vital in order to apply successfully to my PIP as a whole. The article details how the misinformation labelling works within Instagram as a platform. Mashable is a well-known company that covers news regarding technology in a timely manner yet lacks academic credibility, with validity also seemingly low and bias unknown. Although this would culminate in a not overly helpful source, the example-specific nature permits these characteristics in my PIP.

Clair R, The effects of social isolation on well-being and life satisfaction during pandemic Humanit Soc Sci Commun 8, 28 (2021). https://doi.org/10.1057/s41599-021-00710-3 [accessed 1 July 2024]

This article explores how isolation measures, such as lockdowns and social distancing, affected mental health and overall life satisfaction of individuals. The author utilised quantitative and qualitative data to measire changes in psychological well-being, social connectedness, and wellbeing following prolonged isolation. The journal's peer-review

process enhances the credibility of the article with the author holding expertise in social sciences and mental health, adding credibility to the analysis and findings presented in the article. While considering biases, the articles focus on social isolation may emphasise negative outcomes while potentially overlooking positive aspects or coping mechanisms that were apart of the situation discussed.

Coleman K, 'How Do Algorithms Work?', Status Labs Blog, 2024, https://statuslabs.com/blog/how-do-algorithms-work [accessed 1 July 2024]

This article 'How Do Algorithms Work?' written by Status Labs, features overviews of how algorithms work within social media platforms, focusing on the implementation of the designed mechanisms to personalise content for social media users. Status Labs is a generally well-known digital marketing firm, which attributes some authority for the company to speak on a topic regarding technology yet, there is no indication that the post underwent review before being published, allowing for extreme limitation of credibility. In terms of validity, the source provides clear examples with reasonable information to back up proposed findings, yet the source lacks empirical evidence from primary research that would be found in an academic paper, limiting the validity of the entire piece. In terms of bias, the nature of Status Labs as a marketing company could interfere with the way in which they portray media and technology businesses which limits how much information can be applied to my PIP. While considering this, very little application of this source was featured in my PIP to ensure a high level of credibility in my findings.

Domb A, (2021) 'Escape the Echo Chambers', The Beautiful Truth, https://thebeautifultruth.org/life/psychology/escape-echo-chambers/ [accessed 8 July 2024]

This article proposes various solutions to the issues of echo chambers and the impact they have on individuals with explanation of the psychological and social mechanisms that contribute to the formation of echo chambers, while offering practical advice for individuals seeking to diversify the information they consume. While the site provides valuable information, it may not have the same level of academic value as academic journals, with the author writing primarily from personal experience, also adding to the source's high bias. While this source has been helpful, it needed to be accompanied by more credible sources in order to be applied responsibly.

Holur P, 2022, 'Which side are you on? Insider-Outsider classification in conspiracy-theoretic social media' https://aclanthology.org/2022.acl-long.341.pdf **[accessed 19 June 2024]**
Academic paper 'Which side are you on? Insider-Outsider classification in conspiracy-theoretic social media' delves into the social classifications within echo chambers of conspiracy theorist groups, exploring the way in which individuals within these groups exclude and isolate on the basis of the insider-ousider dynamic. The paper was presented at the ACL (Association for Computational Linguistics) conference which solidifies its credibility as an academic source appropriate for secondary research, with Holur's affiliation and expertise in computational social science contributing further to the credibility of the study and application to my PIP's features of exclusion and this model of insider-outsider. Potential biases in the study could stem from the focus on conspiracy-theoretic communities, which may lead to negative aspects of social media as a critical study which may impact as a limitation.

Human Rights Watch, 'Covid-19 Fueling Anti-Asian Racism and Xenophobia Worldwide', Human Rights Watch (12 May 2020) https://www.hrw.org/news/2020/05/12/covid-19-fueling-anti-asian-racism-and-xenophobia-worldwide **[accessed 1 July 2024]**
This source explores the rise in anti-Asian racism and xenophobia as a result of the COVID-19 pandemic, highlighting various incidents of discrimination and violence directed towards individuals of Asian descent. The Human Rights Watch is a well-regarded, international, non-governmental organisation known for its extensive research. The organisation's reports are based on valid investigations and documentation, lending significant credibility to the findings present. The source's validity is supported by its research methodologies, such as interviews with affected individuals, with its potential biases possibly stemming from Human Rights Watch's inherent focus on human rights issues and its commitment to highlighting racial and social injustices, possibly serving as an implication.

Kitchens B, Johnson SL, & Gray P, 'Understanding Echo Chambers and filter bubbles: The impact of social media on diversification and partisan shifts in news consumption' (2020) https://www.darden.virginia.edu/sites/default/files/inline-files/05_16371_RA_KitchensJohnsonGray%20Final_0.pdf **[accessed 21 May 2024]**

B Kitchens, SL Johnson, & P Gray's work 'Understanding Echo Chambers and filter bubbles: The impact of social media on diversification and partisan shifts in news consumption' delves into the phenomena of echo chambers and filter bubbles, extremely relevant and applicable to my topic area. The research investigates the effects of these phenomena on news diversification and partisan shifts, analysing empirical data to form findings. The source features various primary research methodologies shown throughout, with detailed descriptions showcasing validity of their findings. In terms of credibility, authors involved are affiliated with reputable academic institutions and all hold impressive works as individuals, solidifying the credibility of the article's content, along with affiliation with Darden School of Business at the University of Virginia with access to the paper through the university's official website. Potential biases in this study could stem from the authors' critical, academic backgrounds and the source's focus on social media's negative impacts rather than both areas. This may pose as a limitation, although this source has been incredibly useful for my PIP to form fundamental understanding of the topic area.

Murphy M, (2022). 'Increase in Conspiracy Theories Online During Pandemic, Research Finds'. ABC News. Available at: https://www.abc.net.au/news/2022-04-08/increase-in-conspiracy-theories-online-during-pandemic-research/100976194 [accessed 22 June 2024]

This source delves into the key findings from various studies indicating a significant increase in the spread and engagement with conspiracy theories throughout the COVID-19 pandemic. The source does not present a great deal of academic information yet, ABC News is a major Australian news organisation known for comprehensive news coverage and high journalism standards. The article draws on research findings, which adds to its overall credibility, with a focus on reporting significant and relevant issues, contributing to the reliability of the information featured. Potential biases in the article may arise from its focus on the negative aspects of conspiracy theories and their impact during the pandemic. The report generally considers the dangers of misinformation without fully exploring potential solutions or the complexity of belief systems which may present as an implication.

Oso L, "Journalism ethics: the dilemma, social and contextual constraints" 2024https://www.tandfonline.com/doi/full/10.1080/23311886.2024.2328388. [accessed 13 June 2024]

This source "Journalism ethics: the dilemma, social and contextual constraints" delves into the ethical dilemmas faced by journalists within the context of social and contextual

constraints including social pressures and institutional conflict. The source is deemed credible by the publishers standards of peer review and research with its validity lying within the practical examples relevant to real world contexts. Potential biases may arise through the possibility that analysis could emphasise certain constraints or ethical issues based on personal or theoretical biases rather than a wide range of issues. This has been very useful for my PIP due to its relevance to topic area and relevant fundamental course concepts.

Ramseyer J and Rasmusen E, 'The Law of Group Polarization' Coase-Sandor Working Paper Series in Law and Economics. 1999 https://chicagounbound.uchicago.edu/law_and_economics/542/ [accessed 12 June 2024].

This source 'The Law of Group Polarisation' is a brief explanation of the inherent group polarisation in everlasting human behaviours. While the source does not provide a wide lens of information, it is helpful to relevant areas of my PIP. Credibility is generally high due to the authors being from the University of Chicago and their references for their work aligning with credible sources. Although the work being written in 1999 may limit its validity, the overall validity of the article is seemingly high yet this is still a limitation to consider. This source has been helpful to my PIP, allowing me to further understand how and why polarisation and extremism occurs within echo chambers.

Roose, K (2021) 'What Is QAnon, the Viral Pro-Trump Conspiracy Theory?' The New York Times. Available at: https://www.nytimes.com/article/what-is-qanon.html [accessed 22 June 2024].

This article by Kevin Roose outlines the overview of conspiracy theorist group QAnon, explaining its origins, central claims and relevance to ex US President Donald Trump. This source acted as a contemporary example for my chapters. It was published by the New York Times, which is a leading and highly reputable newspaper source yet the inherent political ideologies are clear and provide clear bias which must be considered and may pose as a possible limitation as it also lacks academic background.

Rosgow F, Media Literacy for Students in a Digital Age, Carnegie Corporation of New York, (2024) https://www.carnegie.org/our-work/article/media-literacy-for-students-in-a-digital-age/. [accessed July 9, 2024]

The source explores the importance of media literacy for students in the context of the digital age, relevant to the solution based aspect of my PIP. The source does not hold a high level of credibility yet provided assistance to my own critical thinking regarding the synthesis of proposed solutions and future directions of my topic area. Potential biases in the report may include a focus on the educational perspective and emphasis on media literacy as a solution to digital misinformation might overshadow other factors contributing to wider challenges of echo chambers.

Society of Professional Journalists, "SPJ Code of Ethics," Society of Professional Journalists, https://www.spj.org/ethicscode.asp. [accessed June 15, 2024]

The "SPJ Code of Ethics" outlines specific ethical standards and responsibilties of journalists to practice journalism resspsonsibly with the wellbeing of society in mind, through providing detailed information applicable to aspects of my PIP including responsibility of institutions and individuals. In terms of its credibility, the Society of Professional Journalists, is a respected professional organisation that is notably dedicated to promoting ethical journalism, making the source credible and reliable for my PIP. In terms of bias, it is important to consider, while the code aims to provide universal standards for journalists, it may emphasise ethical principles over others based on personal perspective and priorities, this is important to consider and may pose as a limitation.

Titchkosky, T., & Michalko, R., "Beliefs in Conspiracy Theories and Online News Consumption during the onset of the COVID-19 pandemic", Journal of Qualitative Disability Studies, vol. 1, no. 1, 2023, https://journalqd.org/article/view/3318/436 [accessed 19 June 2024]

This article features analysis and qualitative findings regarding the relationship between beliefs in conspiracy theories and patterns of online news consumption during the early stages of the COVID-19 pandemic. The credibility of the source is supported by the known peer reviewed article produced by the organisation with the validity reinforced by clear qualitative findings throughout the source. The potential bias to be considered lies within the authors' clearly negative views toward conspiracy theories and specific online behaviours which must be considered and contemplated as a limitation for application to my PIP.

Truzzi, A., Tessari, P., & Pietroni, M. (2022). 'The Dark Side of Social Media: Understanding the Spread of Anti-Vaccination Beliefs During the COVID-19

Pandemic'. **Frontiers** **in** **Psychology,** **13,** **Available** **at:** https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9325658/ **[accessed 22 June 2024].**

This article investigates the role of social media in the spread of anti-vaccination beliefs during the COVID-19 pandemic. The authors investigate how misinformation and anti-vaccine content spread throughout social media platforms and the impact of these beliefs on public health. This is extremely valuable for the understanding of echo chambers in the context of COVID-19. The source is provided by an organisation known for peer-review and for publishing high-quality research in the field of psychology, contributing to its credibility. Potential biases lie within the intersection of negative outlooks on anti-vaccination which pose as a clear bias to consider, yet this does not affect validity as subject area is a matter of public health and not opinion although it may be viewed as this.