Toward a new climate rhetoric: Appropriating authority, mobilising anger and radical politics to activate the alarmed youth

An exegesis submitted to Auckland University of Technology in fulfilment of the requirements for the degree of Master of Communication Studies

Dominic Pink

2020

Abstract

The climate and ecological crises are the most urgent existential threats facing humanity. Creative communication approaches on this topic are required to counter the ideological constraints of mainstream news media and reticence of climate communicators. This exploratory research project aimed to develop a radical new rhetoric, imagining a youth-fronted web show–called 'House on Fire'–targeted to young people alarmed by the crises. The aim was realised by merging popular ecological and leftist literature, appropriating the authority and legitimacy of the television news studio, and harnessing the emotional power of anger. Research-led practice was chosen to subjectively pursue this creative work, with a production phase incorporating screen-writing exercises, a pilot production to test different emotional frames, and a longer production which synthesised these frames. These productions took place in the AUT studio, utilising student volunteers as presenters and crew. Heuristic inquiry provided the framework to reflect upon the research and draw out core themes. Key findings which emerged from this, shared as stories from the production, included: the rhetorical force of anger as an emotional frame; no neutral exists in the studio space, and its conventions are inherently formal; it is possible to appropriate the studio for activist communication, however, technical constraints arise and diligent adaptations are necessary; the studio can be a space for conducting creative research. It is proposed that future research could develop this exploratory project as a web series for YouTube. It is suggested that activists should offer more complex and holistic communication approaches than mainstream news media and climate communicators, including centring anger as a frame and ascriptions of guilt in class-conscious rhetoric.

Table of Contents

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.

Dominic Pink

24/03/20

Acknowledgments

I want to start by expressing solidarity with the inspirational climate activists and ecosocialist dreamers everywhere fighting for a better world.

I feel very fortunate to have ended up with such an ideal supervisor for this research journey. Thank you Dafydd for being so encouraging and understanding, I couldn't have asked for a better mentor. I have learned so much more than this exegesis contains, and greatly appreciate the knowledge you have shared and the guidance you have shown me.

I would like to acknowledge the AUT student crew who volunteered their time, skill and enthusiasm to the studio production phase of this project: thank you Hannah, Kasia, Ben, Juliet and Ethan, and an extra special thank you to my wonderful presenters Sarah and Gabrielle.

I would also like to extend my sincere gratitude to the AUT studio production Head of Department and studio technician for accommodating my unconventional production. Thank you James and Scott for lending me your valuable expertise and time.

Finally, I would like to express my deepest gratitude to my partner, Sophie, whose unconditional support, trusted advice and untold patience I have relied upon throughout.

"In order for us to adapt to this strange new world … we're going to need new ideas."

— Roy Scranton

1. Introduction

This creative research project seeks to develop a radical new rhetoric on the climate and ecological crises, targeted to young people alarmed by this topic. The intent of this rhetoric is to activate the influencing potential of alarmed youth audiences on their circles, and promote further learning. This chapter will explore my positioning and reflexivity as a researcher, the significance and aim of the research project, and the research questions which guide it.

1.1 Positioning

This project followed research-led practice, in which academic research informs the production of a creative work (Smith & Dean, 2009). This type of research aims to create new ideas and concepts that can change the content or process of the researcher's practice. It is worth noting that the research project can involve an iterative cycle, alternating between both research-led practice (content) and practice-led research (process) (Berry, 2018). While this research project was primarily research-led, there were times when this changed and it became practice-led, particularly during the production phase.

In order to observe, interpret and report their findings in a transparent manner, it is important that researchers understand what their assumptions are, and declare their ontology and epistemology (Crotty, 1998). Ontology is 'what is out there to know?' and epistemology is 'what and how can we know about it?' (Grix, 2004). There are philosophical implications to these questions, concerning how the researcher views the world, and how their core assumptions inform their research choices (Grix, 2004). To simplify the researcher's philosophical process, Crotty combines the fields of ontology and epistemology, identifying three positions: objectivism, constructionism and subjectivism (1998). Constructionism is the most appropriate position for creative practice research, as it rejects the idea of objective truth (Kerrigan, 2018). It allows for an insider's perspective, which values the researcher's subjective position, in order to realise research insights that other positions cannot (McIntyre, 2006). The constructionist position holds that truth—or meaning—is continually being socially constructed through our engagement with the world (Kerrigan, 2018). As someone who has worked for many years in broadcast television, I have observed how practices are constructed through social interaction. Moreover, I have seen

how the medium is used to favour certain positions, and exclude others altogether. Following Crotty's terms, I can therefore declare myself to be a constructionist.

1.2 Reflexivity

Questioning one's assumptions and views is also essential in the researcher's reflexivity process. I am not affiliated with any particular group, political party or doctrine, but my political views strongly align with ecosocialism, and this project takes a leftist perspective. I am alarmed by the climate and ecological crises, and consider myself an aspiring activist. My political beliefs undoubtedly informed my selection of literature, and therefore the foundations of this research project. While acknowledging the limitation, I see this subjectivity as a strength, as this project represents a rejection of the notion of 'objectivity' fetishised by mainstream news media–as I discuss later in Chapter 2, page 9.

1.3 Significance of the Research

The urgency of the climate and ecological crises is undeniable. A preponderance of literature exists on climate communication strategies, media criticism, the politics and philosophy of climate, and so on–which will be explored in the following chapter–however, a significant gap exists concerning creative communication responses. More specifically, creative communication which eschews the objectivity and constraints of both mainstream news and climate communication, with a targeted audience of alarmed young people.

1.4 Research Question

How can I effectively communicate complex and radical ideas about the climate and ecological crises to young people alarmed by the issue?

Sub-questions

1. Can I appropriate the authority and urgency a news studio affords for activist messaging?

2. By merging popular ecological and leftist literature with the affective direct address mode, how can my production experiment towards developing a radical new rhetoric?

3. What insights can emotional framing offer in developing this rhetoric?

1.5 Aims of Research

The ultimate aim of this research is an ambitious one: to develop a radical new rhetoric, with the potential to activate the influencing power of young people alarmed by the climate and ecological crises, as well as promote further learning. While this aim extends beyond the limitations of a Master's thesis, it nevertheless informs the research question and guides the production. This project takes a crucial first step towards that aim by experimenting with the audiovisual form and rhetoric such a communication needs to contain.

1.6 Exegesis Outline

This exegesis follows an unconventional research design, necessitated by the unconventional nature of the project itself. It contains seven chapters in total. Following this introductory chapter, a survey of a broad range of relevant literature is provided in Chapter 2, including background on the climate and ecological crises, climate politics and activism, climate communication and emotional messaging, television news media criticism, news studio conventions, and radical leftist politics on YouTube. Chapter 3 explores the literature on climate audience segmentation, and extrapolates from this which particular audience should be targeted for this communication. This project followed a heuristic research method, and Chapter 4 explains this methodological framework and how it informed the research process. The creative work produced during this project is outlined in Chapter 5. The findings of this research are shared through key stories from the production phase in Chapter 6. The exegesis closes with a conclusion in Chapter 7, including the limitations of this project and suggestions for future research.

"Our economic system and our planetary system are now at war. What the climate needs to avoid collapse is a contraction in humanity's use of resources; what our economic model demands to avoid collapse is unfettered expansion. Only one of these sets of rules can be changed, and it's not the laws of nature."

— Naomi Klein

2. Literature Review

In this chapter I will survey the literature related to the climate and ecological crises, including scientific and NGO reports, popular texts and philosophy. This will be followed by an overview of climate activism, and messaging in climate communication. A critical look at the news media is provided, as well as the role of the news studio in communication. Finally, I will take a look at YouTube as a platform for radical ideas.

2.1 The Climate and Ecological Crises

Over the past three decades, climate scientists have increasingly tried to warn us of the dangers of anthropogenic climate change. NASA scientist James Hansen sounded the alarm on this existential threat to the U.S. Congress in 1988, testifying that global warming was being caused by human activity. That same year saw the establishment of the Intergovernmental Panel on Climate Change (IPCC), a United Nations body intended to assess potential climate change risks, impacts and prevention options. Despite international recognition of human-driven global warming–and subsequent agreements between governments to reduce greenhouse gases, such as the 1997 Kyoto Protocol–the extraction and burning of fossil fuels has not only continued unabated, but in fact accelerated significantly. A recent report by the non-profit Carbon Disclosure Project (CDP) found that the contribution of fossil fuels to global warming has doubled since 1988 (Griffin, 2017). Furthermore, CDP revealed that just 100 companies are responsible for 71 per cent of the world's greenhouse gas emissions since 1988–with multinational energy corporations ExxonMobil, Shell, BP and Chevron identified among the worst culprits (Griffin, 2017). If this fossil fuel extraction trend continues in the coming 28 years the same as it has the previous 28, then the planet's average temperatures will be set to rise approximately 4dgC above pre-industrial levels by the century's end–precipitating mass species extinction, high risks of food scarcity, and the likelihood of crossing multiple climate tipping points (Griffin, 2017).

The urgent need for unprecedented collective action on climate change was announced by the IPCC in October 2018. In an alarming report on global warming, they warned there is only 12 years left to limit rising temperatures before we risk irreversible climate catastrophe. The report highlighted numerous catastrophic climate impacts that can be avoided by limiting global warming to 1.5dgC. “This is the largest clarion bell from the science community,” said Roberts, co-chair of the IPCC working group on impacts, “I hope it mobilises people and dents the mood of complacency” (Watts, 2018).

The IPCC report was closely followed by a similarly alarming ecological report from the UN Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), which presented evidence of rapid global biodiversity losses and warned that up to one million species are at risk of extinction (2019). Both reports tell us it is not too late to prevent the worst of these existential crises, but we must act now. The IPBES authors advocate for ‘transformative change’, and it could be interpreted that–within the confines of their scientific language–they are calling for an end to global capitalism. “By transformative change,” says the report, “we mean fundamental, system-wide reorganization across technological, economic and social factors, including paradigms, goals and values” (IPBES, 2019). This acknowledgement of the need for systemic change from the typically reticent scientific community echoes a growing consensus among political theorists, environmentalists and activists: capitalism must be confronted if we hope to avoid climate catastrophe and mass extinction.

The origins of our climate emergency can be traced to the coal-powered dawn of industrial capitalism (Klein, 2014; Malm, 2016). Indeed, Malm’s term ‘fossil capitalism’ has been used to persuasively argue just how entangled the two stories remain (Wallace-Wells, 2019). While industrialisation outside of capitalism has contributed to global warming–such as in the Soviet Union–those most responsible for historic greenhouse gas emissions are the capitalist economies of Western Europe and North America (Brevini & Murdock, 2017). Furthermore, capitalism is an unfit system for responding to climate crises (Chomsky, 2017). The very essence of capitalism is a system of perpetual economic growth, treating nature as a resource to be exploited (Bookchin, 1989). Capitalism’s ‘growth fetish’ is directly opposed to ecological sustainability (Fisher, 2014). The actions necessary to avert climate catastrophe require us to directly challenge our economic system, and the powerful fossil fuel industry cannot survive in its current form if we hope to avoid extinction (Klein, 2014). It is for these reasons, Klein contends, that we have been unable to respond to the climate and ecological crises: we are “politically, physically, and culturally” locked in (2014, p. 63). This analysis is echoed by many economists and academics, who point to gross domestic product (GDP)

being the sole measure of societal wellbeing as a powerful example of ideological lock-in (Lent, 2017; Hickel, 2017; Raworth, 2018).

When it comes to thinking about the climate crisis, the perceptual bigness of the issue–much like capitalism–has created a tendency to look away, and has been used as an excuse for complacency (Wallace-Wells, 2019). Complicating this is the fact that we are all implicated, says Scranton: "the problem is that the problem is us" (2015, p. 58). Philosophers have labelled global warming a 'wicked problem', a problem we are able to understand but which has no rational solution. One of its most difficult aspects is that it is an unprecedented collective-action problem: no single country can solve it alone (Scranton, 2015). Human activity is the driver, but it seems as though things, and not people, are in control (Jamieson, 2014). The crisis demands a collective subject, which does not yet exist (Fisher, 2014). Global warming can now, in fact, be called a 'super wicked problem', says Morton, "a wicked problem for which time is running out, for which there is no central authority, where those seeking the solution to it are also creating it, and where policies discount the future irrationally" (2013, p. 153). In order for us to adapt to our new reality, we have to let go of our old world (Scranton, 2015). Fundamentally, this means letting go of fossil-fueled capitalism (Klein, 2014; Lent, 2017; Malm, 2016).

2.2 Climate Activism

The common refrain from climate communicators goes: we have all the tools we need to avert climate catastrophe, all that we lack is the political will. The problem is not the mechanics of solar power, Klein argues, but rather the politics of human power, and whether there can be a shift away from the capitalist and extractivist mindsets which have led us to the brink of catastrophe (2014). Political will, however, is "not some trivial ingredient, always at hand," says Wallace-Wells, "we have the tools we need to solve global poverty, epidemic disease, and abuse of women, as well" (2019, p.44). What many climate communicators, activists, environmentalists and political theorists appear to agree on is the need for mass social movements to move the ideological pole away from neoliberal business-as-usual. After all, "power systems do not give gifts willingly," says Chomsky, "it's popular activism that compels change" (2017). With right-wing populism ascendant globally—not to mention the growing threat of eco-fascism—an apposite left populist movement is needed to radicalise our weakened democracies, placing the climate and ecological crises at the centre of the agenda (Mouffe, 2018).

Politicians are not the only ones able to declare a crisis, argues Klein, mass movements of regular people can too (2014). This idea would prove prophetic with the recent emergence of the global School Strike 4 Climate (aka Fridays for Future) movement—inspired by teen

activist Greta Thunberg—as well as the Sunrise Movement in the United States and the Extinction Rebellion movement in the United Kingdom, all of whom are pressuring governments to declare a climate emergency and take bold action. In short order, these young activists have proven direct action works, positively influencing public opinion on climate action and substantially boosting media coverage. A recent YouGov poll shows public concern over the environment reached a record high in the UK following Extinction Rebellion's mass demonstrations in April (Smith, 2019). The Sunrise Movement was instrumental in championing the proposed Green New Deal, which pushed climate to the centre of American political discourse (Nwanevu, 2019).

In order to take on the economic and political power of global capitalism, rhetorical appeals are required to organise climate justice actions (Artz, 2019). Rhetoric is a process of persuasion, in which an experience is related by symbolic means, including language and image (Sobczak, 2016). This is instrumental in motivating people to action. Activist rhetoric for our times should be class-conscious, says Artz, "emphasising the truth of capitalist inequality and its destruction of human life and the environment." (2019, p.170). This class-consciousness is not yet evident in the burgeoning global climate justice movement. We must lay out a new vision of the world to compete with capitalist hegemony—such as the Green New Deal—and a key part of this is drawing connections among seemingly disparate struggles oppressed by this system and threatened the most by climate breakdown (Klein, 2014). This way of framing the climate crisis as an ethical and political issue–with disproportionate impacts on those least responsible–is what activists mean by the term 'climate justice'. Shifting capitalism to the centre of the narrative forces us to confront the inequality of climate change responsibilities and impacts (Brevini & Murdoch, 2017).

2.3 Climate Messaging

Traditionally, climate communication–from NGO advocacy campaigns, to environmental journalism, to Al Gore's 'An Inconvenient Truth'–has operated under the assumption that providing detailed and accurate information will improve public awareness and lead to behavioural change (Hackett, Forde, Gunster & Foxwell-Norton, 2017). Public indifference to climate change has long been attributed to an 'information deficit', and the persistence of this belief has resulted in more of the same failed information campaigns (Hackett et al., 2017). This has led to calls for more creative and ambitious approaches from many in the environmental communication field (Nerlich, Koteyko & Brown, 2010; Ockwell, Whitmarsh & O'Neill, 2009). Cox posits that perhaps environmental communication should consider itself a 'crisis discipline'–in contrast to the 'monitorial' role of journalism–with an ethical duty to 'enhance the ability of society to respond appropriately' (2007).

Social movement research has established the essential role of emotional messaging in activism (Aminzade & McAdam, 2002; Flam & King, 2005; Goodwin, Jasper, & Polletta, 2001). A survey of social movement literature finds that fear is most associated with inhibiting collective action (Scott, 1990) and hope is most associated with motivating activism (McGeer, 2004), while anger and guilt are dismissed or treated with caution. This long-standing consensus no longer holds. Fear can motivate, contend Kleres & Wettergren; hope can manage fear while inspiring action; ascribing guilt can convert demobilising fear into mobilising anger (2017).

Controversy over emotional messaging in climate communication persists, with little consensus concerning the complicated balancing act required: too much fear risks inducing apathy, while too much hope risks diminishing the seriousness of the crisis. David Wallace-Wells' sensational 2017 New York Magazine article, 'The Uninhabitable Earth'–outlining potential catastrophic scenarios on our current course–reignited the heated debate over the pros and cons of 'doom and gloom' messaging (Chapman, Lickel & Markowitz, 2017). The article received criticism from climate communicators and scientists alike for being 'alarmist', however, when Chapman et al. studied the literature they found the 'go positive' versus 'go negative' division oversimplifies this debate, and suggested a more nuanced understanding of emotion is necessary (2017). They concluded there is no single best way to communicate the climate crisis story. Wallace-Wells is critical of the reticent consensus concerning hope as a more motivating message, arguing that "alarm is not the same as fatalism, that hope does not demand silence about scarier challenges, and that fear can motivate, too" (2019, p.157)

In contrast to the hope-favouring consensus among climate communicators, a recent U.S. study investigating the influence of emotional appeals in climate communication found that viewing videos with fear or humour messaging produced greater climate activism intentions over informational and control videos, but only the fear message directly affected risk perceptions (Skurka, Niederdeppe, Romero-Canyas & Acup, 2018). Additionally, while satirical humour is noted as being particularly effective with millennials, the study reveals that humorous messages decrease the perceived credibility of the source (Skurka et al. 2018). Of course, this can be complicated further by one's interpretation of these emotions. Theorist Terry Eagleton proposes 'hope without optimism', rejecting the complacency of optimism while emphasising the necessity of hope for radical political and social change (2015). This argument is endorsed by Žižek, who says, "the only bearers of true hope are those who dare to confront the abyss we are approaching" (2015). Environmentalist Rebecca Solnit advocates for 'authentic hope', the clear-eyed kind that calls for action (2016). By framing the

alarming climate crisis as a rare opportunity for positive societal change, Klein embraces a holistic message incorporating fear and hope (2014).

2.4 Television News Media

Television news is still the dominant source of information for most people, and it retains a high status in media communications (Sobczak, 2016). The format of television news, however, is ill-suited to communicate the complexity of the climate crisis. As Graber established, television news stories are overwhelmingly brief, making it difficult to convey the necessary information, and crucially omitting the context and analysis required for audience comprehension (1990). Secondly, the absorption of news is complicated by the fact that audiences are bombarded with verbal and visual information, and the need to process both "may interfere with comprehension because it distracts viewers from the verbal messages that provide the frame for interpreting information" (Graber, 1990, p.137). Nothing has fundamentally changed to the television news format since Graber made this analysis.

Crucially, the "suggestive audiovisual form" of television news allows viewers to believe they are observing the reality of a story, that what they are seeing is factual and objective, a prevailing myth which obscures the truth: facts are interpretations of events, and which events are reported is a political decision (Sobczak, 2016, p.46). As Gitlin observed, facts are fetishised for their perceived legitimacy, objectivity, and reassuring quality (1977). These facts are delivered in a clipped, calm and trustworthy tone by news readers, and this uniform tone and cadence is expected from television networks to convey authority (Gitlin 1977). This delivery is an ingrained convention that has remained fundamentally unchanged since Gitlin's foundational analysis. Television news presents itself as a 'window on the world', depicting an objective reality, when in truth, that reality is constructed (Mumby & Spitzack, 1983). Television news–and by extension mass media–is therefore a socialising force, argues Mumby & Spitzack, presenting a "particular and rather narrow view of the world to the television viewer, and are thus inherently ideological" (1983, p.163). Furthermore, the dominant capitalist ideology is embedded within and perpetuated by mass media, which can absorb oppositional ideas into compatible forms or exclude them outright (Gitlin, 1979). These entrenched constraints are significant concerns when considering the urgent need for an informed public on the climate and ecological crises we collectively face.

Each day's top news headline should read: 'We are living in a climate emergency' (Klein, 2014; Solnit, 2014), and yet this is not happening. Furthermore, according to Chomsky, journalists should be making connections between climate and news stories on economics, politics and war (Hackett, 2019). Why does it appear, from a Chomskyan position, that the

media continues to fail us on climate? Fundamentally, this is a direct result of corporate media's primary goal: to turn a profit. Since they rely on advertisers to make profit, corporate media are not incentivised to cover issues which may negatively impact the bottom line. This systemic conflict of interest comprises part of 'the propaganda model' proposed by Herman & Chomsky (2002). Large corporate advertisers, such as those in the fossil fuel industry, will refrain from sponsoring media that criticise harmful corporate activity, such as pollution and ecological breakdown (Herman & Chomsky, 2002). Another significant structural bias of corporate media, according to the propaganda model, is concentration of ownership: 15 billionaires own the majority of the United States' news media companies (Vinton, 2016). While ideological contradictions can exist within news media, the cumulative effect of these factors is one of hegemonic ideology. The corporate media's inherent role, therefore, is to perpetually recreate a reality which supports the existing economic and social class power (Parenti, 1986).

2.5 Appropriating the Television News Studio

One of the major advantages television news enjoys over other media is its perceived legitimacy. By employing the direct address mode–reading a prepared text down the camera as if it were conversational–news anchors' create an authoritative impression (Hallas, 2009). This crucial sense of authority and urgency, which only a news studio offers, has been appropriated by activists over the years, particularly in the public television context. For example, the 1983 WNYC-TV public access show 'Our Time' utilised the direct address to create a sense of urgency about the AIDS crisis, an issue the mainstream news media largely ignored (Herold, 2020). By appropriating this mode of address, activists can grant power to people and causes typically disempowered by newsrooms, and the urgency created can be directed toward collective action (Herold, 2020).

There is a scarcity of literature on using a news studio as an academic research tool, despite the fact that most large universities now have such a studio for industry training. An opportunity presents itself for the authority and professionalism a news studio affords to be appropriated for a radical communication agenda–one which could never be afforded by the gatekeeping and constraints inherent to mainstream news media (Hearing, 2016). A multi-camera television studio offers considerable promise for creative practice research in communication. The television studio can be used as "a rhetorical space," proposes Hearing (2016, p.7), in which new forms of knowledge can be developed and shared–borrowing the authoritative aesthetic of television news for the researcher's own purpose.

2.6 BreadTube: Praxis on YouTube

The last few years have seen a flourishing of leftist messaging on social media, perhaps most noticeably on YouTube. This is most visible in what has been dubbed 'BreadTube' (borrowing from Kropotkin's 'The Conquest of Bread'; also known as 'LeftTube'), a loosely associated movement of independent millennial content creators–including Philosophy Tube, Contrapoints, Shaun, and Hbomberguy. These YouTubers set out to debunk alt-right talking points–which have dominated the platform in recent years–and have become increasingly popular leftist figureheads in the process. Their success suggests a demand exists among curious young audiences for radical thought, including anti-capitalist, pro-socialist, anti-fascist and pro-environmental messages. Crucially, BreadTube can be considered a gateway to more radical thinking, with BreadTubers performing praxis in the Marxist sense by encouraging their community toward further reading and activism (Kuznetsov & Ismangil, 2020). BreadTube has produced three significant videos to date on the climate crisis: Contrapoints' "The Apocalypse" (2018, Dec 2), Hbomberguy's "Climate Denial: A Measured Response" (2019, May 31), and Philosophy Tube's "Climate Grief" (2019, Aug 22). While each has its own distinct style, subject matter and sources, what they share is a united effort to communicate radical and complex ideas surrounding the crises we are facing.

"Real generosity towards the future lies in giving all to the present."

— Albert Camus

3. Audience

This chapter will explain how I identified a specific target audience for my communication, and how this decision influenced the research project. As this step falls somewhere between a literature review and methodology, I have chosen to allocate a chapter to it.

3.1 Determining Target Audience with Global Warming's Six Americas Typology

People's views on climate change are informed by communication. As climate change is an abstract issue, these views are often shaped by information from news media (Metag, Füchslin & Schäfer, 2015). Many studies have analysed the extent to which news media influences views on climate change–as well as behavioural intentions or action–but the most notable of these is the Global Warming's Six Americas segmentation analysis by Maibach, Roser-Renouf & Leiserowitz (2009), which outlined a typology of audience reaction. This foundational study established that American views on climate change differ significantly, and these differences coincide with variations in media consumption and information seeking (Metag et al. 2015).

Maibach et al. outlined these unique audience types as ranging across a spectrum of engagement and concern: at one end is the 'alarmed', who are deeply worried about climate change, while at the other end is the 'dismissive', who do not believe in anthropogenic climate change (2009). In between are the 'concerned', 'cautious', 'disengaged' and 'doubtful'. The Six Americas has since been updated annually, and many climate communicators have used the typology to choose target audiences and tailor messages (Roser-Renouf et al. 2015). It has also been adapted in India, Australia and Germany, although only the latter study included an analysis on patterns of media use.

The Australian study found that the Six Americas typology could be identified in the Australian public's attitudes toward climate change. Its authors highlight some notable differences from the U.S. within these audience types: the proportion of the 'politically significant' cautious (26.1%) and disengaged (20%) segments was larger in Australia; personal experience with climate change effects was higher in all segments; belief in climate

science and support for government action was lower among disengaged, doubtful (11%) and dismissive (9.3%) segments (Morrison, Duncan, Sherley & Parton, 2013). Some of these differences may be explained by the political context: at the time of the study, Australia had experienced intense and extended debate over climate policy, such as carbon pricing and an emissions trading scheme, whereas climate policy was not getting national coverage in the U.S. (Morrison et al. 2013).

The concerned remain the largest segment of the Six Americas, as of March 2018, while the alarmed and cautious populations currently share second place–when combined these groups make up 72 per cent of the American public. It is interesting to see how the Australian and American publics align and differ in their attitudes toward climate change. These two publics appear to have much more in common with each other, however, than they do with Germany, where the level of climate scepticism is far lower and broad consensus exists on the necessity of political measures (Metag et al. 2015). As the climate-denying dismissive public was apparently not present in the German public, this study found only five attitudes toward climate change. The largest population group was the cautious (28%), followed by the alarmed (24%), disengaged (20%), concerned (18%), and doubtful (10%).

As no segmentation analysis currently exists for New Zealand audiences, this begs the question: could the Six Americas typology apply to our population? When considering the political context, consistent pro-environmental rhetoric from Prime Minister Jacinda Ardern, and the introduction of the Zero Carbon Bill, gives the appearance of the Labour-coalition Government taking climate action seriously–especially when compared to the conservative governments of the U.S. and Australia. However, agriculture remains a major industry in New Zealand, and the Zero Carbon Bill has been heavily criticised by environmental groups for giving a 'free pass' to the industry–Greenpeace NZ chief executive Russel Norman labelled the bill "toothless" (Hutton, 2019).

A survey of 15,000 New Zealanders found concern about climate change has risen to 79 per cent, up from 72 per cent in 2018 (Crewdson, 2019). When asked, 'How important is climate change to you as an issue?', a strong majority of 50.2 per cent answered 'extremely', however, the second largest group (17.4%) appeared on the opposite end of the spectrum, answering 'not at all'. While it is possible these people could belong to the doubtful or disengaged groups, there is too much evidence of climate denialism in New Zealand discourse to rule out a dismissive group, as the German study did. Talk radio regularly allows hosts to dabble in climate scepticism and denialism, and major New Zealand news media outlets have published opinion pieces recently reflecting these attitudes (Peacock, 2019).

Moreover, considering New Zealand's significant shared history, culture and values with Australia, it does not seem too much of a stretch to assume that if all six attitudes on global warming are present there, then they are also present here, despite whatever differences the nations may presently have in government.

If it can be assumed that New Zealand's public attitudes on global warming match the Six Americas typology—with the caveat that this assumption is a somewhat problematic one—which is the ideal audience type to target my communication?

Climate messaging that treats diverse populations as a homogeneous mass is not likely to be effective (Roser-Renouf et al., 2015). The messaging must be tailored to a specific audience and medium, rather than the one-size-fits-all approach of many past campaigns (Nisbet, 2010). When considering strategy, Roser-Renouf et al. propose a 'two-step flow' model of communication: target the heavily involved alarmed group to 'activate their potential as opinion leaders', which can help reach the less involved (and more populous) middle segments, who are more likely to be influenced by interpersonal communication than mass media (2015). The alarmed group eagerly seeks new information, using many kinds of media, and is the most likely to discuss climate change with family and friends (Metal et al. 2015).

The case for the two-step communication strategy suggested by Roser-Renouf et al. is strengthened by a new study in Nature Climate Change, which found that children alarmed by climate change can promote concern among their parents–with conservative fathers of teenage girls showing the biggest attitudinal change (Lawson, Stevenson, Peterson, Carrier, Strnad & Seekamp, 2019). This encouraging finding suggests that climate communicators would be wise to treat alarmed youth as interpersonal influencers.

If the alarmed group are to be treated as 'opinion leaders', who can be motivated to influence their social circles, what does the communication need to do to enable this? My informed opinion–developed over months immersed in relevant literature–tells me such a message needs to be: alarming, motivating, persuasive, information rich, and crucially, must provide the kind of radical and complex ideas absent from mainstream news and discourse.

If the ideal target audience for this research project is New Zealand youth alarmed about climate change, which is the ideal media to reach them? The most recent audience survey by NZ On Air revealed a stark generational divide, with younger New Zealanders overwhelmingly preferring online video and streaming services to legacy media (2018). YouTube is now the second most popular media in New Zealand, and is expected to overtake TVNZ1 in the near future. It can be safely assumed that if you hope to target young audiences

online today, you must use popular social media, such as YouTube, Instagram and Facebook–all of which place an emphasis on short-to-mid length videos.

To recap, where does this leave me when considering an ideal climate communication project? A video suitable for social media, targeted to young New Zealanders who are alarmed about climate change, intent on stoking discussion and promoting further learning. This clarifying process led me to embrace the television news studio available at AUT as my platform of delivery, which will be discussed in more detail in both Chapter 4 and 6.

"The philosophers have only interpreted the world, in various ways. The point, however, is to change it."

— Karl Marx

4. Methodology

In this chapter, I will outline the methodological framework this project followed, detailing how it informed my understanding at each step in the research process.

4.1 Framework: Heuristic Inquiry

This research project followed the heuristic model approach, established by Moustakas (1990). Heuristic inquiry attempts to discover meaning in human experience through 'self-reflection, exploration and elucidation' (Moustakas & Douglass, 1985). The researcher's experiences are incorporated into heuristic research. The ultimate purpose is to shed light on "a focused problem, question, or theme" (Moustakas & Douglass, 1985, p.40). The problem I wished to illuminate was how to communicate complex and radical ideas about the climate crisis to young people alarmed about the issue. The reason I chose heuristics over other qualitative methods was due to the flexibility and openness it allows for when exploring such a broad and multi-faceted problem. Furthermore, the method of heuristic inquiry, in which the researcher finds validity in meaning–derived from their subjective inner search (Moustakas, 1990)–struck me as the most appropriately creative approach.

4.2 Initial Engagement

There are six phases comprising Moustakas' heuristic research design. The first of these is the 'initial engagement', which is about discovering a "passionate concern that calls out to the researcher" (Moustakas, 1990, p.27). The initial engagement process invites an inward search by the researcher to find a topic and question which holds personal power (Moustakas, 1990). This process began as I asked myself what I cared deeply enough about to spend a year of my life researching. While there were many topics I was interested in, I strongly felt it should be something with the potential to benefit others. Based on these criteria, I decided to focus on the climate crisis, an issue I was passionate about and had been growing increasingly alarmed by. I had an overwhelming urge to communicate the knowledge I was accumulating, and the alarm I was feeling, about the climate crisis–and particularly to young audiences, who I believed were being failed by mainstream media and climate communicators alike. This urge to communicate is at the heart of why we create, says

Knudsen, and the powerful feelings and emotions associated with this impulse move us to act (2018).

From this period of inner search, I was able to form an early research question: “How can we better engage young people on climate change?” (this was later revised to: “How can I communicate radical and complex ideas about the climate crisis to young people alarmed about the issue?”). During this early engagement, I decided I would make use of the news studio facility available at my university. I intuitively understood the studio would lend a perception of legitimacy and professionalism to this research project, based on my years of experience working in broadcast television.

One of the key heuristic concepts associated with this early research phase is ‘self-dialogue’. According to Moustakas, self-dialogue allows for the phenomenon to speak to the researcher’s own experiences, using self-discoveries and understandings as initial steps (1990). By starting with oneself and being attuned to one’s own experiences, the heuristic researcher can begin to reveal meanings. An early iteration of my self-dialogue with the research question was my online climate activism. I practiced sharing some of the complex and radical ideas I was learning with my followers on Instagram via the stories function–engaging in a kind of online praxis in the Marxian tradition–and also contributed to the environmental online magazine ‘Uneven Earth’. This online praxis was instrumental in bringing my experience into dialogue with the research question, and therefore helping me identify as a climate communicator and researcher.

4.3 Immersion

The second phase of heuristic research is ‘immersion’, which requires the researcher to live the research question at all times. The question becomes a “lingering presence” (Moustakas, 2015, p.9), and demands complete involvement, to the point that the researcher’s entire world is centred in it (Moustakas & Douglass, 1985). This process required engrossing myself for months in an overwhelming array of literature pertinent to the research question: academic journal articles, popular ecological and political books, climate and activist journalism, scientific reports, philosophical and theoretical texts, television news media, and online leftist discourse across various social media (such as YouTube, Twitter and Reddit). My entire way of being in the world shifted, so that everything was now experienced through the lens of climate change communication. When I attended climate strikes, it was no longer as an active participant, but rather as a detached observer, studying the placards and slogans and organisation to better understand the phenomenon. The way I experienced everyday phenomena–such as news, weather, conversation, social media, transport–became coloured by the question, to the extent that I felt almost incapable of having a conversation without

mentioning climate. This sustained focus and way of being helped me accumulate a considerable amount of knowledge on a diverse range of issues connected to the research question in a relatively short period of time.

In order to process and commit to memory unprecedented amounts of new information, I kept in self-dialogue by writing in a research journal–documenting ideas, reflections, problems, meeting notes, and so on, as they occurred–as well as a reading diary collecting key thoughts or quotes from the literature and my musings on them. Habitually making myself enter into this form of self-dialogue provided moments of clarity and understanding which may not have occurred otherwise.

4.4 Incubation

The third phase of heuristic research is 'incubation', a process of careful detachment, in which the researcher steps back from the intense focus on the question. By retreating from this concentrated absorption, the incubation period enables the tacit dimension to enhance understanding (Moustakas, 1990). While I was reluctant to let go of my immersion in the literature, and the many possibilities of the project–I could have happily continued reading and wondering forever–I was confident I had acquired enough core knowledge on this topic to effectively communicate to a young audience. However, I was still not sure what was the most pertinent information to communicate, precisely how I was going to communicate it, and who specifically I was going to communicate it to.

Here I took a departure from the incubation process and re-immersed myself instead in literature surrounding audiences for climate communication. By turning my attention to this, I was able to pinpoint a more specific audience: 'alarmed' young people, as outlined in Chapter 3. Once I had this specific audience in mind, and understood more about their attitudes and behaviour, I revised my research question to include 'complex ideas'. Ultimately, detachment from the literature and a period of incubation was required to lift the fog of complete immersion, however, this was not a single purposeful event, or even linear progress.

Re-immersion in other types of literature was required to gain clarity of purpose. Furthermore, this process had also occurred naturally throughout the immersion phase: whenever I felt confused or overwhelmed by the bigness of the topic, or the sheer level of new information I was consuming, I often needed to take time away from the question in order to process everything. My research experience also included deliberately stepping back-and-forth between immersion and incubation during supervision, where I would often be prompted to distance myself somewhat and take a more detached view. This shifting between engagement and detachment was a continuing occurrence throughout my research

project, and only became more heightened later during the production phase. In screen production research, this is known as the 'cognitive two-step': hopping back-and-forth between immersed creativity and detached reflection (Batty & Kerrigan, 2018).

4.5 Illumination

The fourth phase of heuristic research is 'illumination'. This is a "breakthrough into conscious awareness" of qualities, themes and meanings fundamental to the question (Moustakas, 1990, p.29). Following the self-reflectiveness of the incubation phase, with the researcher in a receptive state, hidden meanings are revealed and insight occurs.

Once I had established my target audience, I conducted a series of screen-writing exercises. These exercises experimented with a variety of conceptual studio-based ideas, such as high concept cli-fi ('Broadcast from 2030'), media satire ('What if the news told the truth?'), cinema-inspired narrative ('They Lie!') and reflexivity ('Climate Brecht'). Ultimately, I ruled out each of these ideas, as they either couldn't do justice to the research question or topic, or were not appropriate for my intended target audience. As each was ruled out, I became aware that I had been approaching the production from the wrong angle: I was looking for an alarming and attention-grabbing hook. I realised what I needed to do instead was develop a holistic and persuasive rhetoric, drawn from the literature and my understanding of it–or my 'tacit knowledge', to use Moustakas' words.

Tacit knowing is the underlying concept of heuristic research: it is implicit knowledge, existing beyond what can be easily articulated (Polanyi, 1969). An aspect of experience is no longer considered tacit once it has been identified, as it can now be described. Tacit knowing "operates behind the scenes, giving birth to the hunches and vague, formless insights that characterize heuristic discovery" (Douglass & Moustakas, 1985, p.49). As I reflected on my screen-writing exercises and pondered which direction my production should go, I remained in a receptive tacit mindset, drawing from the wholeness of my knowledge on the research question to achieve some illumination.

From this process came two realisations. Firstly, that my production needed to explicitly communicate radical ideas on the research topic to my target audience, just as much of the popular ecological and political literature had done. At this stage I added 'radical' to my research question. Secondly, I needed to conduct a test, treating the studio as a kind of communication laboratory. I conceived an idea best suited to acquire data relevant to my research question: I would test three different frames in three short-form videos (approximately 5-8 minutes each), recorded in the AUT studio with student volunteers as cast and crew. Each frame would consist of a key emotional message in climate communication: fear, hope and anger.

Another heuristic concept I employed during this phase was 'identifying with the focus of inquiry', which involves getting inside the research question through inner search and immersion to better understand it (Moustakas, 1990). I did not use this concept directly, however, adapting it instead to attempt to identify with my target audience. I often found myself pondering what young audiences would like to see in climate communication, putting myself in their shoes for a moment to imagine how they might like to be addressed on this issue. This perspective helped guide me towards the realisation that the presenters of my production needed to reflect their audience: young people alarmed about climate change. My identification with this target audience was strengthened by immersing myself in youth climate activism discourse on social media and attending multiple School Strike 4 Climate marches in Auckland. Crucially, this helped me solve another problem: I could turn what I had previously worried could be a weakness–having only young student actors at my disposal to play news readers–into a strength. I made a decisive step away from anything resembling a news pastiche, and now considered the production as a pilot for a potential youth-fronted climate activist web series.

Following these decisive realisations, I began writing my three pilot production scripts in earnest. Simultaneously, I contacted the Screen Production Head of Department to organise my production. I booked the first studio date for the pilot production, visited the studio to investigate the possibilities and practicalities, and arranged for a cast and crew callout to AUT student volunteers. I received a list of names from the studio major undergraduates, and contacted each to enquire about their skills and interest in my production. Based on these responses, I allocated roles, and arranged to meet in person with the floor manager and the two presenters. After these meetings, I cast each presenter in a role I intuitively felt suited their personality and kept this in mind as I developed the scripts. As all cast and crew were AUT student volunteers, and filming took place on campus, there was no ethical approval required for this project.

4.6 Explication

The fifth phase of heuristic research is 'explication', in which the researcher begins to analyse the meanings revealed by the illumination phase. In order to fully understand and explain what has awakened, a comprehensive self-investigation is necessary (Moustakas, 1990).

One of the heuristic concepts key to this process is 'focusing', a sustained process of inner attention with an experience, enabling identification of qualities that were not previously conscious (Douglass & Moustakas, 1985). By deliberately clearing mental space to get a better handle on the question, focusing allows the identification of qualities which have been out of reach as the researcher "has not paused long enough to examine his or her experience

of the phenomenon." (Moustakas, 1990, p.25). I utilised focusing to analyse what qualities and themes my research had revealed, and from this process was able to explicate three research sub-questions:

1. Can I appropriate the authority and urgency a news studio affords for activist messaging?
2. By merging popular leftist and ecological literature with the affective direct address mode, how can my production experiment towards developing a radical new rhetoric?
3. What insights can emotional framing offer in developing this rhetoric?

Identifying these sub-questions helped me understand the core qualities and themes of this research project, and crucially, prepare me for realising them in my production.

Due to the time and access limitations of the studio, and the unconventional research design of this project, I spent less time on this phase. It was imperative that I move on to the next phase to undertake my pilot production, before returning to further reflection and explication again, and finally undertaking a second production.

4.7 Creative Synthesis

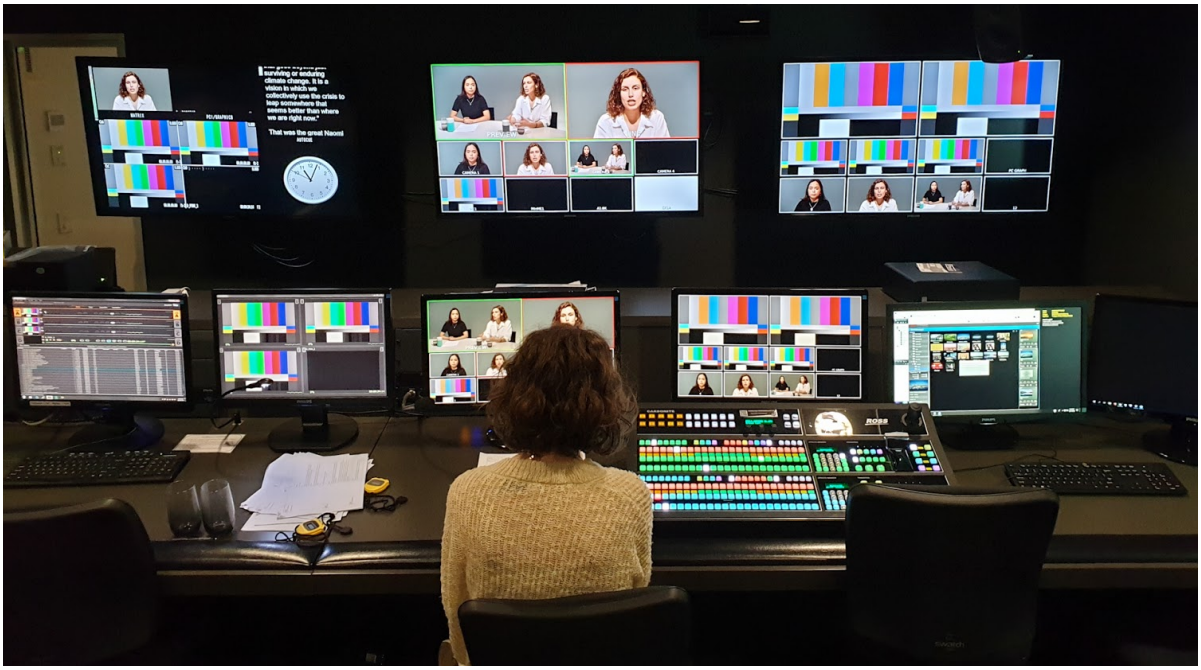
The sixth and final phase of heuristic research is 'creative synthesis'. Following mastery of the material, the researcher must synthesize the core themes into a creative form, such as a video. This is realised through tacit and intuitive powers (Moustakas, 1990). A key concept to this process–and heuristics overall–is intuition, which provides a link between the implicit knowledge of the tacit dimension and explicit knowledge (Moustakas, 1990). Intuition is about drawing on clues, sensing patterns, and looking at something from all angles until the truth is revealed. When developed through practice, intuition can be viewed as an essential skill for seeking knowledge (Polanyi, 1969). When developing my three pilot scripts, I stayed in a tacit frame of mind as I designated which ideas matched with the fear, hope or anger frames. I completely trusted my intuition during this process, as I had been living with this question–and honing my tacit and intuitive powers–for many months by this stage. In order to make the ideas and intentions in the scripts clear to myself, as well as to my presenters, I included footnotes to their relevant sources from the literature (see Appendix A).

The pilot production took place in the AUT studio over a half-day booking with a small student team of five crew and two presenters. The Head of Department, studio technician, and my supervisor were also present. The details of each video from the pilot production and the second production will be provided in Chapter 5. I will give an account of the production process in Chapter 6, which relates key stories from this phase to discuss the findings made.

Throughout the production process, I was aware of the dual role I was performing as writer/producer and researcher. This shuttling between participant and distanced observer–or 'cognitive two-step'–is something I had to remind myself to take note of, and interestingly mirrored the experience I had during the earlier immersion and incubation phases. As I reviewed and edited the videos immediately following the production, I encountered several technical errors that would need to be resolved for the next production, and which led me to take a more active role the second time around.

Reflecting on the pilot production, I utilised 'indwelling', another key heuristic concept which requires turning inward to search for a deeper understanding, incrementally teasing out every possible nuance and meaning until achieving a fundamental insight (Moustakas, 1990). By looking at the parameters and details of each video and each emotional message, of the studio and the performances, I was able to explicate what was required for the second production. This included a holistic message, centred primarily on the anger frame, with several technical improvements and work-arounds to more successfully appropriate the authority and professionalism the studio offers.

Following this quick step back to explication before repeating creative synthesis–staying in a tacit frame of mind throughout–I synthesised a new, longer script (approximately 13-14 minutes) from the three pilots with a more holistic message (see Appendix B for an example of this). The studio was booked again for a half-day, this time for a single lengthier video production, and most of the core crew returned along with the presenters.



Rehearsing the 'House on Fire' pilot production, AUT studio (19/11/19)

“Make visible what, without you, might perhaps never have been seen.”

— Robert Bresson

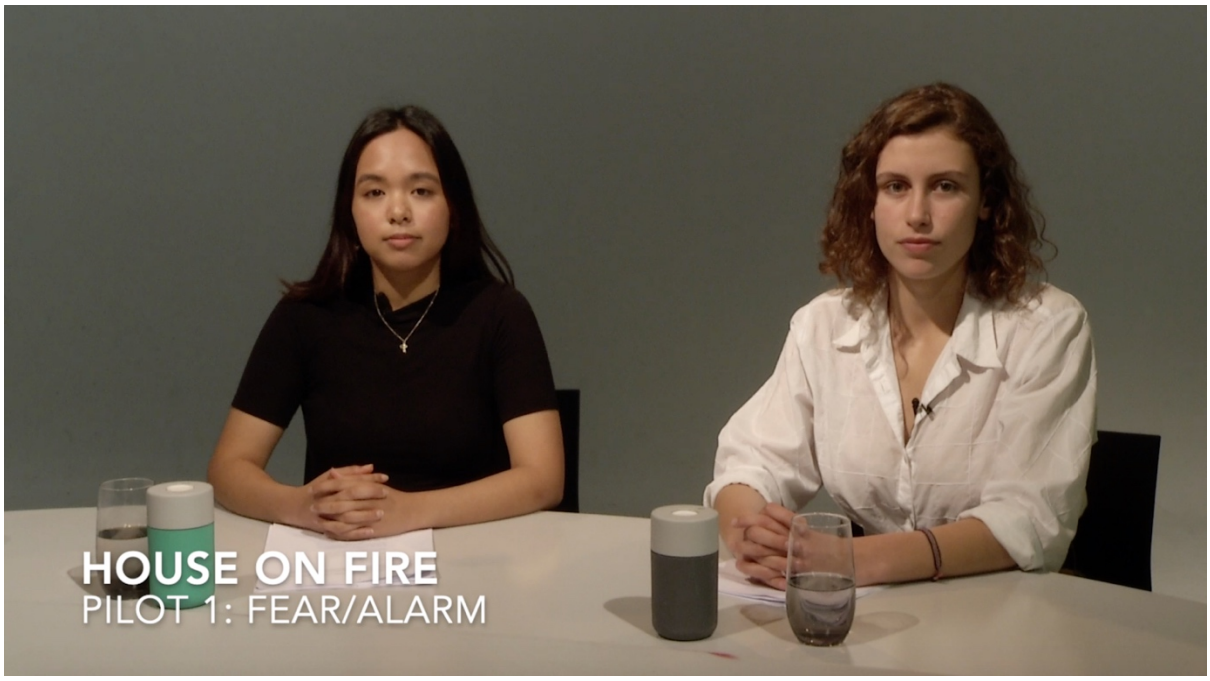
5. Viewing the Material

This chapter will explain each of the videos created during the production phase of this research project. It is recommended that the reader view all of these videos–in sequential order–before moving on to the findings chapter, being sure to check the video content against each of the descriptions and screenshots below.

5.1 Pilot Video One: ‘Fear/Alarm’

This was the first frame tested during the pilot production in the AUT studio on November 19, 2019. The intention of this frame was to test the effectiveness of the alarming scientific literature on the climate and ecological crises, as well as fear as a motivational emotion.

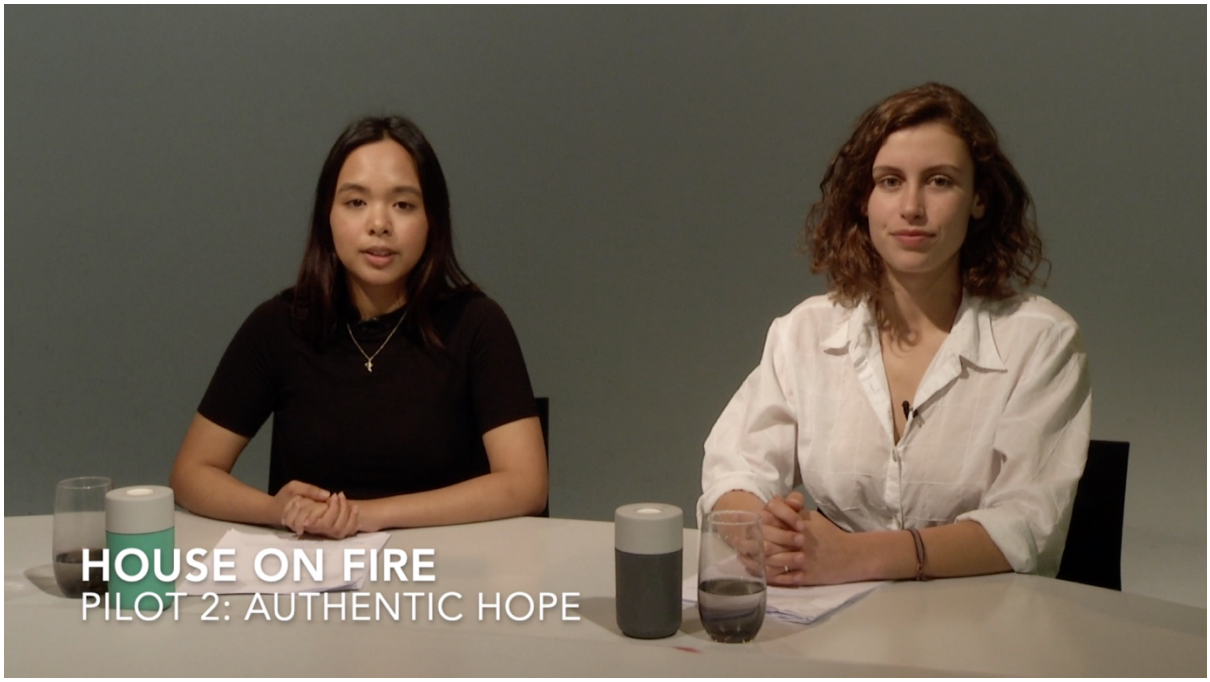
[Duration 06:23]



5.2 Pilot Video Two: 'Authentic Hope'

This was the second frame tested during the pilot production in the AUT studio on November 19, 2019. The intention of this frame was to test the effectiveness of the more hopeful climate and political literature, as well as hope as a motivational emotion.

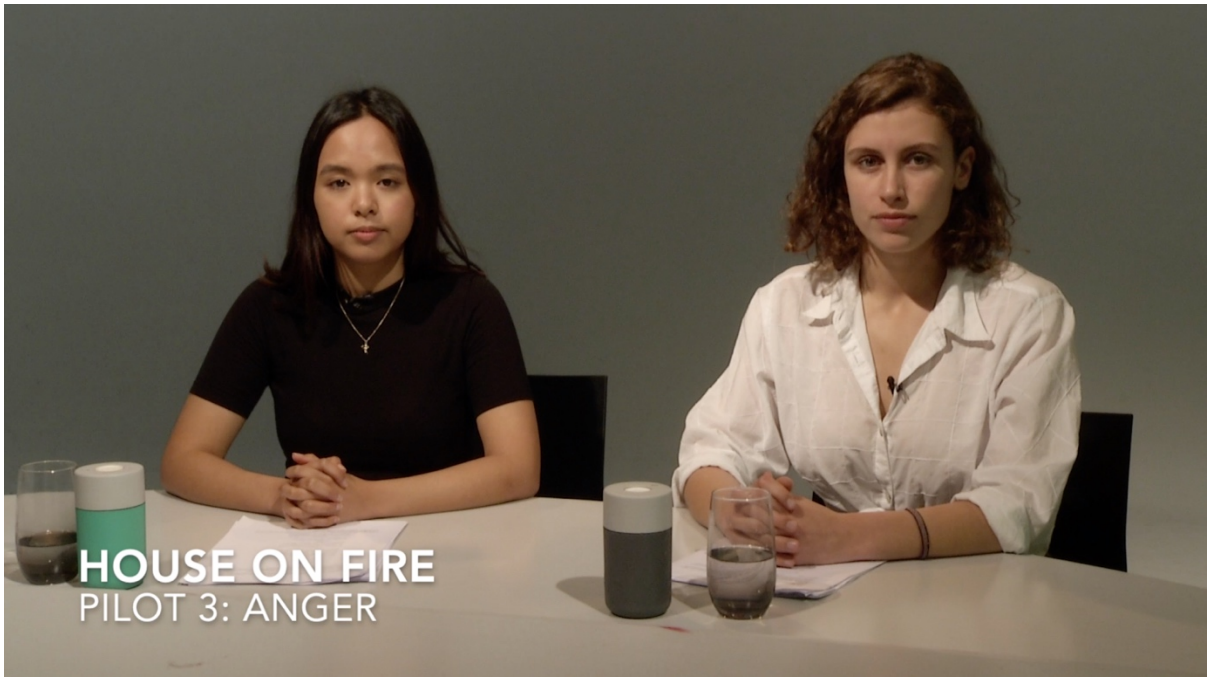
[Duration 06:18]



5.3 Pilot Video Three: 'Anger'

This was the third frame tested during the pilot production in the AUT studio on November 19, 2019. The intention of this frame was to test the effectiveness of the more angry climate and explicitly anti-capitalist political literature, as well as anger as a motivational emotion.

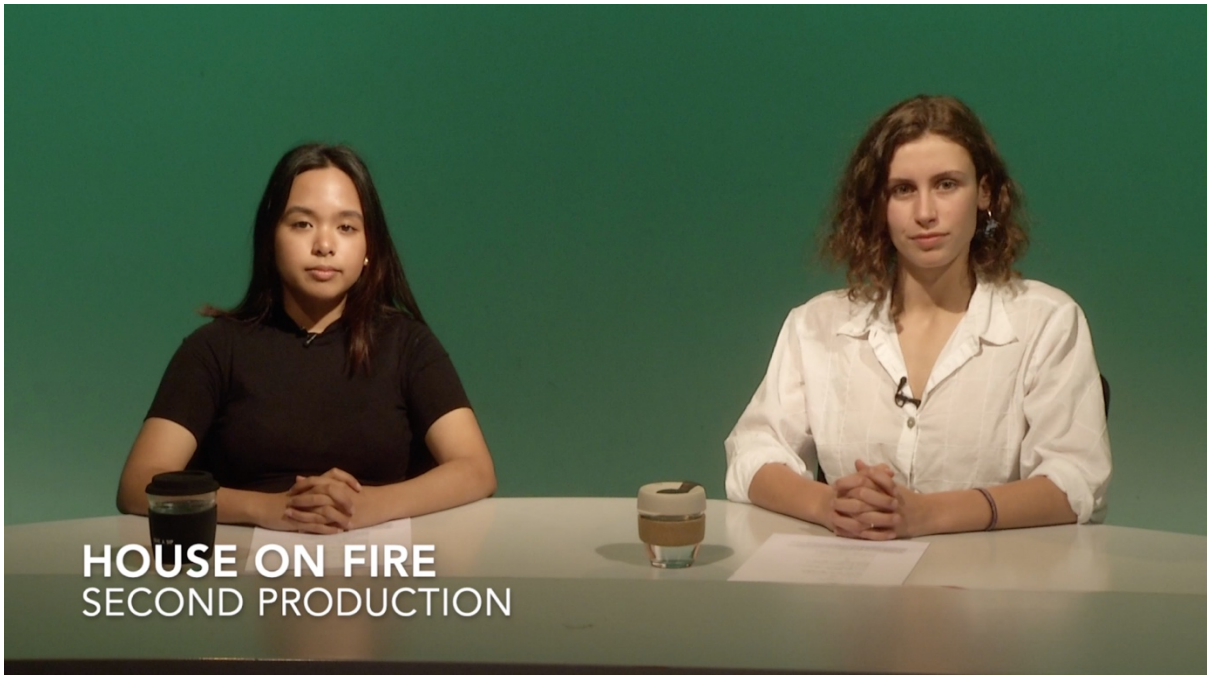
[Duration 08:08]



5.4 Second Production: 'Holistic Synthesis'

This was the lengthier video which synthesised aspects of the three pilots. The intention of this production was to provide a more holistic message, with technical improvements for increased professionalism. It was recorded in the AUT studio on December 4, 2019.

[Duration 13:53]



“Anger has its place. Anger has fire, and fire moves things.”

— Nina Simone

6. Findings

In order to explore the findings made by this research project, I am going to share some notable stories from the production, including excerpts from my research journal and images from my studio experimentation. I will extrapolate key themes from these stories, and discuss how they contrast with the literature. This chapter is unconventional–combining theory, method, practice and reflection–as I discovered that it was the most effective and economical way to provide the necessary context. A more conventional structure risks sacrificing the interconnectedness of these findings, as well as repeating myself beyond what the word count of the exegesis allows.

6.1 The Rhetorical Force of Anger (and Ascribing Guilt)

A key finding of this project concerns the effectiveness of anger as a frame in emotional messaging. As I developed the three pilot scripts—assigning persuasive ideas and rhetoric from my research and tacit knowledge to each frame (‘alarm/fear’, ‘authentic hope’ and ‘anger’)—I began to expect that the anger frame would be the strongest. A possible contributing factor here is anger was the emotion which resonated most with how I felt, and what motivated me, regarding the climate and ecological crises. Another factor is that as I went through my research to match material to each frame, I realised I had accumulated more literature which fit anger than the other frames.

Following my pilot studio production–in which I tested three frames for their effectiveness in answering the research question–I found that the anger pilot was considerably stronger than both the fear and hope pilots. Upon reflection, I realised that anger seemed to best mirror the recent emotional energy of many climate activists, who are part of my intended target audience of young and alarmed people. Moreover, while each frame included anti-capitalist rhetoric, the anger message was the only one to do so explicitly–with strong ascriptions of guilt.

It was interesting to note that the delivery of both presenters was most convincing for this frame: more persuasive and credible than they had been prior, with urgency and authority present for the first time. There are several variables which may have influenced this: anger was the third and final pilot of the day, so the presenters may have grown in confidence over

time; the script had less scientific/technical language than the fear frame; perhaps righteous anger is easier to perform; or perhaps the script was simply the strongest I produced. However, as we finished filming for the day, I observed that both the presenters and crew unanimously found the anger frame most appealing, as noted in my research journal entry below:

> Following today's production, I mingled with the presenters and crew, hoping to get a sense of how these young students felt about the frames, and the radical messages they contain (in lieu of being able to actually show these to my intended target audience). As everybody was chatting, I noticed that the students overwhelmingly found the anger frame most appealing. Some mentioned the emphasis on systemic solutions over individual behaviour especially spoke to them, as they often felt de-motivating guilt about their own behaviours. By emphasising the systemic causes and solutions to the climate crisis absent from mainstream discourse, and highlighting the mainstream media's role in pushing individual responsibility narratives on the public, I noticed an almost cathartic response in the students. This was surely heightened by the righteous anger of the script and its persuasive delivery.
>
> November 19, 2019

While I can't make any concrete conclusions based on the reactions of the crew and presenters, I also can't help but wonder whether this same response to the anger frame could apply to my intended target audience–perhaps even more so, considering they are already alarmed by the issue and seeking new information?

Complicating the anger frame is the 'ascription of guilt', which I intuitively understood as a sub-category of anger. This allowed my presenters to point the finger toward a systemic cause (capitalism) of the crises we face, as well as related individual causes (billionaires; fossil fuel corporations; corporate media). I found that this was an essential rhetorical tool for delivering radical, class-conscious ideas in an accessible way.

As previously mentioned, I had an expectation that anger would be the most effective frame, and the pilot production confirmed this. However, I had another more long-standing expectation—informed by tacit knowledge accumulated throughout this project—that the complexity of the climate and ecological crises required a more holistic approach than a single emotional frame can provide. While recognising the strength of anger, I came to realise that it could not be as effective without the crucial context and urgency that fear provides, and risks being wearying without the motivation of the hope. Following this

realisation, I stayed in a tacit frame of mind while reviewing the three pilots in order to synthesise the highlights of each into one longer and more holistic message, with an emphasis on the anger frame. By combining these frames into a single longer message, I intended to persuasively communicate as much complex and radical information as possible, in a manner which could never happen in television news media (as explained in Chapter 2, p. 9). Further, by centring anger in this holistic message, I hoped to counter the binary hope versus fear messaging prevalent in climate communication (see Chapter 2, p. 8). As I closely observed the delivery of this new holistic message in the second production, I felt growing confidence that this could be an encouraging first step toward developing a radical climate new rhetoric–one that is up to the challenging task of adequately communicating the crisis. Furthermore, I found that the much improved script and performances of the second production considerably enhanced its persuasive impact.

From this story on the effectiveness of the anger frame, I can identify a central theme to this study concerning the tone of writing. Despite much of my screen-writing process following an intuitive path, I had to stay aware of the emotional tone of my writing throughout the production. It was also important for me to put myself in the position of the audience, and consider whether the tone was motivating or not. Additionally, this theme relates to my finding on the necessity of holistic messaging in climate communication, which requires a complicated balance of tones.

As highlighted in the literature, emotional messaging is a core component of activism (Aminzade & McAdam, 2002; Flam & King, 2005; Goodwin, Jasper, & Polletta, 2001), and climate communication is dominated by a binary hope vs fear discourse which oversimplifies the task (Chapman, Lickel & Markowitz, 2017). The findings of this research project suggest that binary framing approaches such as this are not adequate to communicate the complexity and nuance of the climate and ecological crises. Moreover, the findings of this research project strongly suggest that anger should be a more central emotional component of climate communication, including ascriptions of guilt. This is congruent with Kleres & Wettergren, who found that ascribing guilt can transform demobilising fear into mobilising anger (2017). Finally, the findings of this research project suggest that anger and ascriptions of guilt are well suited to deliver anti-capitalist and class-conscious messages, which is a necessity for activist rhetoric in this climate emergency era (Artz, 2019).

6.2 Studio Conventions: No Neutral, Dialogue Challenges, and Studio as Laboratory

Another key finding of this research project concerns the inherent limitations of the studio on an unconventional activist production. When attempting to appropriate the studio for

radical activist purposes, I ran up against some of its formal conventions and constraints. A primary example of this concerned background lighting.

On my first visit to the studio–with the Head of Department and my supervisor–I looked at various options for the pilot production, such as single presenter direct address versus two presenters, sitting versus standing, formal news desk versus informal breakfast TV set, and so on. During this visit we discussed the possibilities for lighting, including coloured background lights, and my intuition told me the look should be as minimal and neutral as possible, so as to avoid distraction from the frames I was testing and the message I was trying to foreground. I was concerned about complicating my findings, therefore it was important that aesthetics remained as neutral as possible–and consistent between each pilot–to minimise distractions. What I found, however, was that by aiming for neutral I had unintentionally created an aesthetic that was so stark it drew attention to itself, and this ironically proved to be a considerable distraction. Furthermore, this stark aesthetic gave an almost amateurish appearance to the pilot videos, threatening to diminish the professionalism and authority I was hoping to appropriate by using the studio.

Ultimately, I found that by trying to not send any kind of aesthetic message, I was still sending a message. There is no true neutral in the studio, and every aesthetic decision–including the decision to avoid aesthetics–has an effect. This finding has implications for researchers and activists attempting to appropriate a formal space such as the television news studio and pursue their own audiovisual rhetoric.

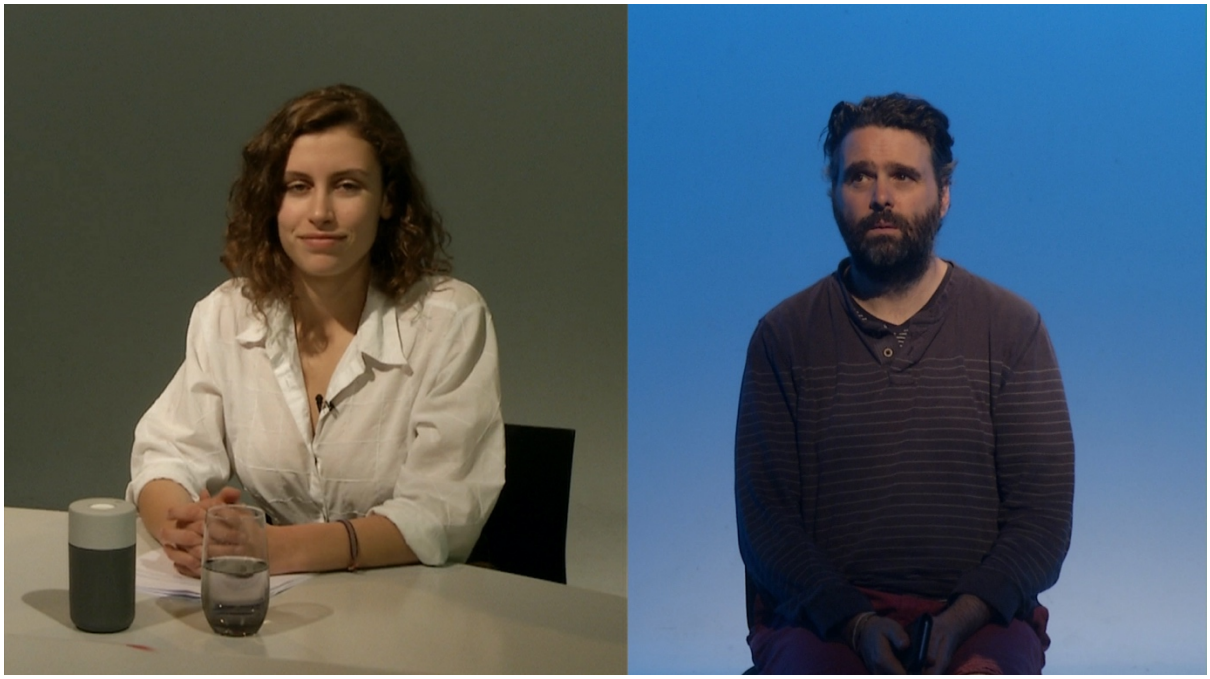
Following the realisation that this 'neutral' lighting was not going to work, I revisited the studio to look into other options for my second production, as noted in my research journal entry below:

> After reviewing the pilot videos, I've decided I must resolve the distracting lighting problem before the next production. Unfortunately, I don't have an example in mind that I can point to as something I should use. I do know that I still want to avoid simply mimicking mainstream news aesthetics, so I will avoid the classic blue look that most use. I've planned to visit the studio again today to feel out other options...
>
> This afternoon I experimented with various colour options in the studio with my supervisor and the studio technician, discussing their possible implications. We looked at multiple shades of red and orange, which I found too angry or apocalyptic, as well as too 1970s retro. Following this we took a look at shades of blue, playing with unconventional colour mixes to avoid the classic blue of mainstream TV news. During this process, we stumbled upon an appealing teal colour, which struck me as occupying a sweet spot between formal/authoritative blue and

informal/environmental green. I went with my gut and committed to teal for the second production.

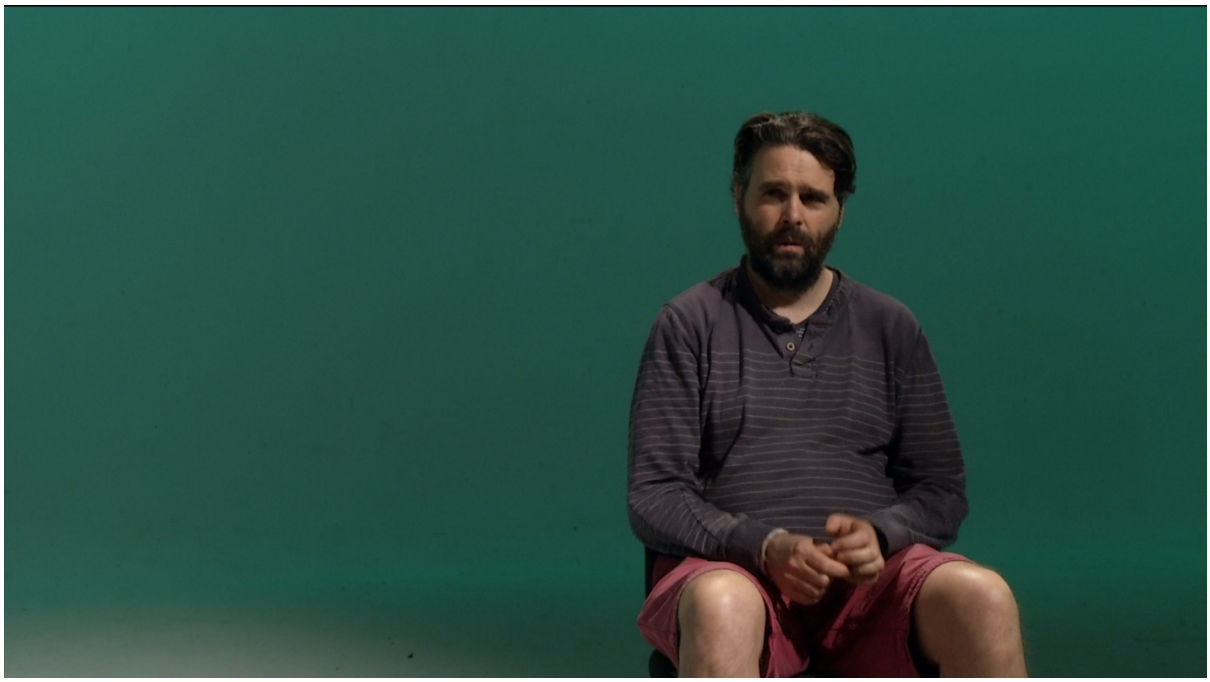
December 3, 2019

This lighting experiment was conducted in the AUT studio, with my supervisor standing in for a presenter. We compared images side-by-side with the pilot production, as seen in the photos below.



Studio lighting experiment: pilot ‘neutral’ vs ‘authoritative blue’ colour

Studio lighting experiment: pilot ‘neutral’ vs ‘retro red/orange’ colour



Studio lighting experiment: teal colour

I decided on a new lighting colour by experimenting in the studio, drawing on tacit knowledge of the aesthetics in communication. By trusting my intuition, I found that the teal lighting proved a fitting aesthetic choice for the second production–less distracting and more professional than the ‘neutral’ pilot aesthetic, while also appearing rather unique for a studio production, and landing nicely between formal and informal. Furthermore, I was glad to avoid the formal and routine ‘authoritative blue’ lighting used by most corporate media–which, according to American industry insiders, is curiously the result of focus-testing and a duopoly on studio design (McLevy, 2016). As the studio technician explained to me during this experiment, there are also some important technical considerations which make blue the go-to colour scheme for television news, however, since I was not chroma keying nor intending to broadcast this production on television, these were not an issue.

This story demonstrates how productive happy accidents can occur when conducting creative research in the studio. A creative decision was reached by treating the studio space as a research tool, and this decision could not likely have been made in any other context. For researchers and activists exploring new audiovisual rhetoric, this finding suggests that studio experimentation is crucial to discovering happy accidents, such as this lighting choice.

This finding affirms Hearing’s suggestion that university studios could be a creative research tool (2016). There is a scarcity of literature on this subject, but this research project suggests that there is great promise for further creative practice research in studio spaces.

Another key example of studio conventions constraining this production involved the duration of dialogue. Television news norms have established that presenters only read brief bites of information at a time–making things simpler for both the presenters and audience–and this is what media students are trained to do. I intended to push the boundaries of dialogue length, deliberately stepping away from these formal and oversimplified news conventions, toward a more informal delivery and complex rhetoric–including some lengthy quotes from key literature. But these conventions can prove challenging to break. I found that when attempting to deliver longer, more complex segments of dialogue, the presenters frequently struggled to get through it. Furthermore, as I reviewed the videos afterwards, I found there was also a risk of wearying the viewer with too many lengthy dialogues. Longer dialogues were absolutely necessary, however, to avoid sacrificing complexity or substance, which was my goal with this production. I realised during production that I made it hard on my presenters by choosing not to cut to any pre-recorded footage, as the news media would. This challenging performance aspect could likely have been mitigated by more rehearsals, if time and access allowed.

As highlighted in the literature, lengthier segments give the audience a greater chance of information absorption compared to the news media's preference for brevity (Graber, 1990), and this is essential when communicating new and complex ideas. This research project found that the studio can be a challenging space to pursue lengthier segments of dialogue. However, it was crucial to not shy away from longer duration, complex narratives and radical ideas no matter the challenge, as these are fundamental to addressing the research question. Furthermore, as the literature suggests, these elements are necessary to counter the mainstream media's continued failure to adequately convey the urgency, and communicate the interconnected causes and solutions, of the climate and ecological crises (Klein, 2014; Chomsky, 2019).

When reviewing these stories on studio conventions, I can identify a key theme of formal versus informal. This was present through the screen-writing process, as I attempted to intuitively blend the formality and authority of studio news with the informality and accessibility of YouTube, and remained present for the reflection and synthesis process. This tension between formal and informal became perhaps the defining theme for decisions made in the studio–with the lighting example being foremost, but extending to all kinds of less significant choices, such as: no formal establishing and closing shots, encouraging informal (yet not casual) presenter outfits, avoiding formal set dressing, directing performances to find a formal/informal sweet spot, and so on.

6.3 Autocue Complications for Unconventional Direct Address

A third key finding of this research project concerns the complications that can arise when attempting to use the direct address mode for an unconventional production. In order to perform the direct address, presenters rely on the autocue. Going into the pilot production, I learned there would only be two cameras with autocue available—one for each presenter—and a third camera for the wide shot with no autocue. This was a significant technical issue, as the way I had envisioned the production and written the scripts did not exactly suit this set-up. I had intended to use the wide shot often for short exchanges between the presenters, to lend a degree of informality and accessibility to the production—with the presenters acknowledging each other in a style more akin to YouTube than the formality of mainstream news. However, by having such complex and lengthy scripts, which were unfamiliar to these student presenters, we were presented with a real problem: they needed to be reading from the autocue 100 per cent of the time. This problem was exacerbated by the fact that there was almost no time for rehearsals due to time and access constraints on the studio booking.

This autocue problem was noted in my research journal following the pilot production:

> As we began rehearsing yesterday, I could tell right away that the eyelines of both presenters were off. We tried to mitigate this by moving Cam 3 across so it was closer to Presenter 1's eyeline, and made a compromise by limiting use of that wide shot chiefly to her dialogue. However, reviewing the footage now, I am deeply disappointed to find that the eyelines are still off to a distracting and amateurish degree. In the moment, I had hoped this workaround was sufficient, but perhaps because I was trying to be across multiple aspects of the production, as well as perform my detached researcher role, and stay keenly aware of time in order to get through all three videos in one day, I failed to notice just how off this remained. I now regret not paying closer attention to the technical aspects of the production, and can't help but wonder whether I could have caught it if I had performed the technical director role. This feeling is reinforced by additional technical errors, such as some takes not beginning from the previous cut when a presenting mistake occurred, which means I now have to employ amateurish jump cuts when editing the videos.
>
> November 20, 2019

While this entry highlights technical issues, which are not the focus of this research project, I don't believe you can discount the technical when attempting to appropriate the studio and develop effective audiovisual rhetoric. Technical flaws, such as distracting eyelines, will diminish any advantages the studio provides, such as perceptions of authority and

professionalism. This finding had direct implications on how I approached the second production.

As a result of the technical flaws of the pilot production, and the realisation that I should perform a more participatory role, I was more proactive about technical issues leading up to and during the second production. First of all, I endeavoured to solve the lighting problem, as detailed in the previous story. Secondly, I approached the studio technician about any possible solutions to this autocue problem. Fortunately, he was able to rig an autocue onto Camera 3, which meant we could now have presenters reading from all three cameras.

A related finding for myself as a communicator was the challenge of writing for the autocue. As this was my first experience doing so, I was perhaps not aware enough of its conventions. Moreover, I was attempting a kind of lengthy and complex dialogue which would never appear on an autocue in a conventional studio production. This presented a real challenge, as some passages were simply too long and difficult for the presenters—not to mention the crew operating the autocue—requiring many takes. Additionally, there were many words the presenters seemed to be unfamiliar with and would trip over.

Following the pilot production, I reflected on the issues raised by the autocue as I rewrote. I kept in mind which words were stumbled over, adapting the script by adding hyphens to make certain words easier to read and pronounce, and changing or removing other words altogether (Appendix B). I also added capital letters for emphasis of certain words to direct performance, and added more notable spaces in the script to direct pauses, as I observed the presenters and autocue operator were not pausing enough during the pilots. Camera shots were also added to the autocue script for the second production, so the presenters knew precisely when we were cutting and could prepare their eyelines—previously this was only provided to the camera operators, floor manager and technical director on a separate studio script. I found that this process of tweaking the script for autocue resulted in significantly reducing mistakes and improving performances for the second production, achieving a much more confident and convincing rhythm. Furthermore, I feel that it also made me more aware as a communicator of what was required for future studio productions.

As noted in the literature, direct address is used by news media to create an authoritative impression (Hallas, 2009), and the legitimacy and urgency it carries can be appropriated by activists (Herold, 2020). This research project finds that appropriating the direct address is complicated when using lengthy and unconventional dialogue on the autocue, and doing so requires studio trial-and-error and revision. This has implications for researchers and activists looking to use the direct address when appropriating the studio.

From this story on the complications of the autocue, I can identify two themes: the platform of delivery, and the aforementioned formality versus informality. I set out to create something that had the advantages of television news media without the ideological constraints. What I found, however, is that a tension arises when attempting to use such a formal space as a studio in an informal manner. This tension presented significant challenges and required major creative and technical problem solving. Every step of the way, as I reached for informality, the formality of the studio asserted itself on the production–the autocue stories are a prime example of this.

"The assumption that what currently exists must necessarily exist is the acid that corrodes all visionary thinking."

— Murray Bookchin

7. Conclusion

This research project sought to understand the most effective way to communicate radical and complex ideas about the climate and ecological crises to a young audience alarmed by the issue. It was determined that a viable strategy to do this was by appropriating the authority and legitimacy the television news studio affords, with an informal approach tailored to YouTube. This problem was explored over a several month production phase, which included screen-writing exercises, a pilot studio production of three short videos with different emotional frames and messages, and a second production of a single lengthier video which synthesised those frames. Each stage of the production process was accompanied by comprehensive self-reflection.

7.1 Limitations

A major limitation on this research project was time. The Master's thesis is just one year, which presents a challenge for any ambitious creative project. It is important to note that I am a sole actor, trying to learn as much as possible on the research question–not to mention the research process itself–within this tight time frame. A further limitation was budget. I was provided with NZ$1000 by AUT to fund the production process, which went towards food and koha for the student crew and presenters across both productions. These limitations of time and budget preclude doing more than two studio productions, as well as any consideration of more ambitious ideas–such as anything involving off-campus filming, elaborate set dressing and costume, or an extensive editing process. Additionally, these limitations precluded any consideration of investigating social media, such as YouTube, which could easily become its own thesis project. Another limitation was access: while I was fortunate to be able to book the AUT studio twice for this project, it is often booked for classes, visits and other productions, so the window of opportunity to book or visit can be narrow–and the pressure to be productive in that time is considerable. Finally, the availability of AUT studio majors to participate in these productions became a considerable limitation. Following an email callout for student volunteers, I was able to enlist five crew and two presenters, which was sufficient for the pilot production. However, by the time of the second production, only three crew were available to return, and it was too late in the

year to recruit new volunteers. This added stress and confusion leading up to the second production, but fortunately it was resolved on the day itself by some of the crew performing dual roles.

Some major delimitations set for this project include: the choice of target audience (young and alarmed), the platform of delivery (studio; intended for YouTube), the choice of emotional frames tested (fear; hope; anger), the decision to avoid studio news norms (brevity; throwing to videos; on-screen graphics), and the decision not to test for performance or aesthetics during the production phase–in order to focus the findings on rhetoric. A further delimitation concerns the decisive step away from explicitly critiquing news conventions and rhetoric. While appropriating the studio in the manner this project did automatically includes an element of news critique, that was not the primary focus of this research, and I was wary of wading into media criticism, as this would easily become its own thesis (and one which many others have already written).

7.2 Key Findings and Implications

Three central themes emerged from this research. The tone of the writing was a dominant theme throughout the production phase, directly related to the emotional frames tested in the pilots and the synthesis of these for the second production. It was found that anger was the most persuasive of the three frames tested in the pilots, and the best suited to deliver class-conscious rhetoric. Accompanying this finding was the realisation that complex climate communication required a more holistic rhetoric than any single emotional frame provides. The implications of these findings for activists are that emotional messaging is most effective–and able to communicate complex ideas–when holistic. Further, both anger and ascriptions of guilt are powerful emotional tools in activist rhetoric, and should perhaps be more prevalent in climate communication.

A second major theme concerns formality versus informality. This tension was present throughout the development of these productions, as the formality of the studio came up against the informality of a youth-oriented style intended for YouTube. When making lighting decisions, it was found that no neutral exists in the studio–by trying to avoid aesthetic messages, you are still making an aesthetic message. This finding has implications for activists attempting to appropriate the formal studio space. In addressing the lighting concern between productions, it was found that by experimenting in the studio and being guided by intuition, creative discoveries can be made. This finding suggests that the studio should be considered a place for creative research, particularly for activists pursuing novel audiovisual forms and rhetoric.

The third theme relates to the platform of delivery. By attempting to push the boundaries of studio conventions on dialogue length and complexity–and avoid the ideological constraints of television news–it was found that this can prove challenging for student presenters. Complicating this was the use of direct address via autocue, which presented technical issues. These technical findings from the pilot production directly influenced the second production, and they have implications for activists attempting to appropriate the studio: technical flaws can diminish the advantages provided by this space, such as professionalism and authority. Additionally, it was found that thoroughly editing the autocue script for emphasis, pauses and pronunciation can noticeably improve performances and reduce errors, and therefore make lengthy and unconventional dialogue less challenging.

7.3 Future Research

As an exploratory creative communication project, this research has provided a first step towards developing a radical new rhetoric–one which aims to effectively communicate the complexity of the climate and ecological crises to young alarmed audiences. There is encouraging potential for this to be developed further as a web series for YouTube, which could conceivably be undertaken as a PhD project.

When considering the limitations of this project, it becomes apparent there is room for endless iterations of it: the production could test for aesthetics, or performance, rather than message; feature professional actors, or actual activists, rather than student presenters; the target audience could be changed to another segment of the population; parody or satire could be explored; news conventions such as on-screen graphics and recorded interviews could be added.

7.4 Final Comments

This exploratory research project has taken a crucial first step towards developing an audiovisual form and rhetoric capable of delivering radical and complex ideas on the climate and ecological crises to young alarmed audiences. It suggests that university studio spaces can be sites of creative research, and should be appropriated by activists for radical communication projects. The authority and urgency that the news studio affords can be appropriated by activists for the kind of nuanced discussions not present in mainstream media. The ideological constraints of news media and binary hope-vs-fear messaging of climate communicators should be countered and complicated by activists with more radical and holistic approaches, including harnessing the emotional power of anger and ascriptions of guilt in class-conscious rhetoric.

References

Aminzade, R., & McAdam, D. (2002). Emotions and contentious politics. *Mobilization: An international quarterly, 7*(2), 107–109.

Artz, L. (2019). Speaking the power of truth: Rhetoric and action for our times. In J. Lee & S. Kahn's (Eds.) *Activism and Rhetoric: Theories and Contexts for Political Engagement* (Second edition.) (pp. 159–172). Routledge.

Batty, C., & Kerrigan, S. (2018). *Screen production research: Creative practice as a mode of enquiry*. Palgrave Macmillan.

Berry, M. (2018). Ethnography and screen production research. In C. Batty & S. Kerrigan's (Eds.) *Screen production research: creative practice as a mode of enquiry*. (pp. 103–120). Palgrave Macmillan.

Bookchin, M. (1989). *Remaking society: Pathways to a green future*. Black Rose Books.

Chapman, D. A., Lickel, B., & Markowitz, E. M. (2017). Reassessing emotion in climate change communication. *Nature Climate Change*, *7*(12), 850–852. https://doi-org.ezproxy.aut.ac.nz/10.1038/s41558-017-0021-9

Chomsky, N., & Polychroniou, C. J. (2017). *Optimism over despair: on capitalism, empire, and social change*. Chicago, IL: Haymarket Books.

Cox, R. (2007). Nature's "crisis disciplines": Does environmental communication have an ethical duty? *Environmental Communication*, *1*(1), 5–20. https://doi-org.ezproxy.aut.ac.nz/10.1080/17524030701333948

Crewdson, P. (2019, July 16). *We asked about climate coverage and got 15,000 responses*. Stuff.co.nz. Retrieved from https://www.stuff.co.nz/environment/climate-news/113711124/we-asked-about-climate-change-coverage-and-got-15000-responses

Crotty, M. (1998). *The foundations of social research*. Sydney: Allen & Unwin.

Douglass, B. G., & Moustakas, C. (1985). Heuristic inquiry: the internal search to know. *Journal of Humanistic Psychology*, *25*(3), 39–55. https://doi-org.ezproxy.aut.ac.nz/10.1177/0022167885253004

Eagleton, T. (2015). *Hope without optimism*. New Haven: Yale University Press.

Fisher, M. (2010). *Capitalist realism: is there no alternative?* Winchester, UK: Zero Books.

Flam, H., & King, D. (2005). *Emotions and social movements*. Routledge.

Gitlin, T. (1977). Spotlights and shadows: Television and the culture of politics. *College English*, *38*(8), 789. https://doi-org.ezproxy.aut.ac.nz/10.2307/375949

Gitlin, T. (1979). Prime time ideology: the hegemonic process in television entertainment. *Social Problems*, *26*(3), 251. https://doi-org.ezproxy.aut.ac.nz/10.2307/800451

Goodwin, J., Jasper, J. M., & Polletta, F. (2001). *Passionate politics: Emotions and social movements*. Chicago: University of Chicago Press.

Graber, D. A. (1990). Seeing is remembering: How visuals contribute to learning from television news. *Journal of Communication*, *40*(3), 134–156. https://doi-org.ezproxy.aut.ac.nz/10.1111/j.1460-2466.1990.tb02275.x

Griffin, P. (2017, July 10). *CDP carbon majors report 2017*. Retrieved from https://www.cdp.net/en/articles/media/new-report-shows-just-100-companies-are-source-of-over-70-of-emissions

Grix, J. (2004). *The foundations of research* (2nd ed.). Basingstoke and New York: Palgrave Macmillan.

Hackett, R. (2019, February 12). *Noam Chomsky: 'In a couple of generations, organized human society may not survive'*. National Observer. Retrieved from https://www.nationalobserver.com/2019/02/12/features/noam-chomsky-couple-generations-organized-human-society-may-not-survive-has-be

Hackett, R. A., Forde, S., Gunster, S., & Foxwell-Norton, K. (2017). Engaging climate communication. In *Journalism and climate crisis: Public engagement, media alternatives*. Basingstoke : Taylor & Francis Ltd, 2017. Retrieved from http://ezproxy.aut.ac.nz/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=cat05020a&AN=aut.b19839650&site=eds-live

Hallas, R. (2009). *Reframing bodies: AIDS, bearing witness, and the queer moving image*. Duke University Press.

Hearing, T. (2016). The scholarly studio: Developing a new aesthetic of the multi-camera television studio as an academic research tool. In *Australian Screen Production Education & Research Association, 5-7 July 2016, Canberra*.

Herold, L. (2020). Televisual emotional pedagogy: AIDS, affect, and activism on Vito Russo's Our Time. *Television and New Media*, *21*(1), 25–40. https://doi-org.ezproxy.aut.ac.nz/10.1177/1527476418813440

Herman, E. S., & Chomsky, N. (2002). *Manufacturing consent: the political economy of the mass media*. Pantheon Books.

Hickel, J. (2017, October 7). *Want to avert the apocalypse? Take lessons from Costa Rica*. The Guardian. Retrieved from https://www.theguardian.com/working-in-development/2017/oct/07/how-to-avert-the-apocalypse-take-lessons-from-costa-rica

Hutton, C. (2019, May 8). *Government's zero carbon bill already facing heavy criticism*. Radio New Zealand. Retrieved from https://www.rnz.co.nz/news/political/388789/government-s-zero-carbon-bill-already-facing-heavy-criticism

IPBES. (2019, May 31). *Global assessment report on biodiversity and ecosystem services*. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Retrieved from https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services

IPCC. (2018, October 8). *Special report on global warming of 1.5°C*. Intergovernmental Panel on Climate Change. Retrieved from http://www.ipcc.ch/report/sr15/

Jamieson, D. (2017). *Reason in a dark time: Why the struggle against climate change failed - and what it means for our future*. New York, NY: Oxford University Press.

Klein, N. (2014). *This changes everything: Capitalism vs the climate*. United States : Simon & Schuster.

Knudsen, E. (2018). *Finding the personal voice in filmmaking*. Palgrave Macmillan.

Kuznetsov, D. & Ismangil, M. (2020). YouTube as praxis? On BreadTube and the digital propagation of socialist thought. *TripleC: Communication, Capitalism & Critique*, *1*, 204. https://doi-org.ezproxy.aut.ac.nz/10.31269/triplec.v18i1.1128

Lawson, D., Stevenson, K., Peterson, M., Carrier, S., Strnad, R., & Seekamp, E. (2019). Children can foster climate change concern among their parents. *Nature Climate Change*, *9*, 458-462.

Lent, J. R. (2017). *The patterning instinct: a cultural history of humanity's search for meaning*. Amherst, NY: Prometheus Books.

Maibach, E., Roser-Renouf, C., & Leiserowitz, A. (2009). Global warming's six Americas 2009: an audience segmentation analysis. Retrieved from https://cdn.americanprogress.org/wp-content/uploads/issues/2009/05/pdf/6americas.pdf

Malm, A. (2016). *Fossil capital: the rise of steam power and the roots of global warming*. London: Verso.

McGeer, V. (2004). The art of good hope. *The Annals of the American Academy of Political and Social Science, 592,* 100

McIntyre, P. (2006). *Creative practice as research: 'Testing out' the systems model of creativity through practitioner based enquiry*. Paper presented at the Speculations and Innovations: Applying Practice Led Research in the Creative

Industries Conference, Queensland University of Technology.

McLevy, A. (2016, February 10). *Why every cable news set uses the same two colours*. The A.V. Club. Retrieved from https://aux.avclub.com/why-every-cable-news-set-uses-the-same-two-colors-1798244065

Metag, J., Füchslin, T. & Schäfer, M. (2015). Global warming's five Germanys: a typology of Germans' views on climate change and patterns of media use and information. *Public Understanding of Science*, *26*(4), 434-451.

Morrison, M., Duncan, R., Sherley, C., & Parton, K. (2013). A comparison between attitudes to climate change in Australia and the United States. *Australasian Journal of Environmental Management, 20*(2), 87-100.

Morton, T. (2013). *Hyperobjects: Philosophy and ecology after the end of the world*. Minneapolis: University of Minnesota Press.

Mouffe, C. (2018). *For a left populism*. London: Verso.

Moustakas, C. (1990). *Heuristic research: Design, methodology, and applications*. Sage Publications.

Mumby, D. K., & Spitzack, C. (1983). Ideology and television news: a metaphoric analysis of political stories. *Central States Speech Journal*, *34*(3), 162.

Murdock, G., & Brevini, B. (2017). Carbon, capitalism, communication. *Carbon Capitalism and Communication*, 1–20. doi: 10.1007/978-3-319-57876-7_1

Nerlich, B., Koteyko, N., & Brown, B. (2010). Theory and language of climate change communication. *Wiley Interdisciplinary Reviews-Climate Change*, *1*(1), 97–110. https://doi-org.ezproxy.aut.ac.nz/10.1002/wcc.002

Nisbet, M. (2009). Communicating climate change: Why frames matter for public engagement. *Environment*, *51*(2), 12–23. Retrieved from

http://ezproxy.aut.ac.nz/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=anh&AN=36984697&site=eds-live

Nwanevu, O. (2019, May 14). *A decisive year for the Sunrise Movement and the Green New Deal*. The New Yorker. Retrieved from https://www.newyorker.com/news/our-columnists/a-decisive-year-for-the-sunrise-movement-and-the-green-new-deal

NZ On Air & Glasshouse. (2018, August 1). *Where are the audiences?*. NZ On Air. Retrieved from https://d3r9t6niqlb7tz.cloudfront.net/media/documents/NZ_On_Air_May_2018_WHERE_ARE_THE_AUDIENCES_-_FINAL_for_print_and_web.pdf

Ockwell, D., Whitmarsh, L., & O'Neill, S. (2009). Reorienting climate change communication for effective mitigation forcing people to be green or fostering grass-roots engagement? *Science Communication*, *30*(3), 305–327. https://doi-org.ezproxy.aut.ac.nz/10.1177/1075547008328969

Parenti, M. (1986). *Inventing reality: the politics of news media*. Belmont, CA: Wadsworth.

Peacock, C. (2019, July 28). *Climate scepticism boosted by broadcasters*. Radio New Zealand. Retrieved from https://www.rnz.co.nz/national/programmes/mediawatch/audio/2018705763/climate-scepticism-boosted-by-broadcasters

Polanyi, M. (1969). *Knowing and being: Essays*. Chicago, IL: Univ. of Chicago Press.

Raworth, K. (2018). *Doughnut economics: Seven ways to think like a 21st-century economist*. London: Random House Business Books.

Roser-Renouf, C., Stenhouse, N., Rolfe-Redding, J., Maibach, E., & Leiserowitz, A. (2015). Engaging diverse audiences with climate change: Message strategies for Global Warming's Six Americas. In Cox, R. & Anders, H. (eds.) *Handbook of Environment and Communication*.

Scott, J. C. (1990). *Domination and the arts of resistance: Hidden transcripts*. New Haven: Yale University Press.

Scranton, R. (2015). *Learning to die in the Anthropocene: Reflections on the end of a civilization*. San Francisco, CA: City Lights Books.

Skurka, C., Niederdeppe, J., Romero-Canyas, R., & Acup, D. (2018). Pathways of influence in emotional appeals: Benefits and tradeoffs of using fear or humor to promote climate change-related intentions and risk perceptions. *Journal of Communication*, *68*(1), 169–193. doi: 10.1093/joc/jqx008

Smith, H., & Dean, R. T. (2009). *Practice-led research, research-led practice in the creative arts*. Edinburgh: Edinburgh University Press.

Smith, M. (2019, June 5). *Concern for the environment at record highs*. YouGov. Retrieved from https://yougov.co.uk/topics/politics/articles-reports/2019/06/05/concern-environment-record-highs

Sobczak, B. (2016). News as a rhetorical act. *Acta Universitatis Lodziensis. Folia Litteraria Polonica, 5*. https://doi-org.ezproxy.aut.ac.nz/10.18778/1505-9057.35.04

Solnit, R. (2016). *Hope in the dark: Untold histories, wild possibilities*. Edinburgh: Canongate Books.

Vinton, K. (2016, June 1). *These 15 billionaires own America's news media companies*. Forbes. Retrieved from https://www.forbes.com/sites/katevinton/2016/06/01/these-15-billionaires-own-americas-news-media-companies/

Wallace-Wells, D. (2017, July 10). *The uninhabitable earth*. New York Magazine. Retrieved from https://nymag.com/intelligencer/2017/07/climate-change-earth-too-hot-for-humans.html

Wallace-Wells, D. (2019). *The uninhabitable earth: A story of the future*. London: Allen Lane.

Wang, S., Corner, A., Chapman, D., & Markowitz, E. (2018). Public engagement with climate imagery in a changing digital landscape. *Wiley Interdisciplinary Reviews: Climate Change*, *9*(2). doi: 10.1002/wcc.509

Watts, J. (2018, October 8). *We have 12 years to limit climate change catastrophe, warns UN*. The Guardian. Retrieved from https://www.theguardian.com/environment/2018/oct/08/global-warming-must-not-exceed-15c-warns-landmark-un-report

Žižek, S. (2015). *Hope without optimism*. Review on cover of T. Eagleton's *Hope without optimism*. New Haven: Yale University Press.

Appendix A

First page of 'House on Fire: Alarm Pilot' script

Concept: Three short (5-7 min) studio-based videos attempting to communicate an aspect of the climate crisis–informed by popular climate activist/authors–each testing how effective a particular frame is for this task
Audience: Youth who are alarmed about climate change; targeted toward YouTube
Characters: Two female youth activists, Annelise and Amy, who are passionate about communicating climate issues with fellow young people in an accessible manner (their show, 'House on Fire', could be considered as a pilot for a youth-fronted web series on climate issues)
Visuals: minimal; no change between different frames

Frame 1: Alarm

AMY:
Hi, I'm Amy.

ANNELISE:
And I'm Annelise.

AMY:
Welcome to 'House on Fire', a web series dedicated to bringing you everything the mainstream media won't tell you about the climate crisis[1]. In this episode we will be talking about our future.

ANNELISE:
"It is much, much worse, than you think. The slowness of climate change is a fairy tale..."[2]

This is how the author David Wallace-Wells begins his frightening account of our near future, 'The Uninhabitable Earth', and it makes a fitting introduction to our discussion today.

AMY:
We are living in a climate emergency.[3] This much was made alarmingly clear

[1] Clearly differentiating this from mainstream media; implying they are not adequately covering the climate crisis (as argued by Chomsky, Klein, etc.)
[2] 'The Uninhabitable Earth' (Wallace-Wells, 2019) - prominent example of alarmist climate literature
[3] Every news broadcast should open with the climate emergency (Chomsky, Solnit)

Appendix B

First page of 'House on Fire: Second Production' script

AMY:
Hi, I'm Amy.

ANNELISE:
And I'm Annelise.

AMY:
Welcome to 'House on Fire'[1]

A web series dedicated to bringing you everything the corporate media WON'T tell you about the climate crisis[2].

ANNELISE:
"It is much, MUCH worse, than you think. The slowness of climate change is a FAIRY TALE..."[3]

This is how the author David Wallace-Wells begins his frightening account of our near future, 'The Uninhabitable Earth'... and it's where we'd like to begin our discussion today.

AMY:
We are living in a climate emergency.[4]

This much was made alarmingly clear in October 2018 - when scientists from the Inter-governmental Panel on Climate Change, or I-P-C-C, issued their 'doomsday' report[5].

[1] Greta Thunberg reference to signal this is for the alarmed
[2] Clearly differentiating this from mainstream media; implying they are not adequately covering the climate crisis (as argued by Chomsky, Klein, Monbiot and others)
[3] 'The Uninhabitable Earth' (Wallace-Wells, 2019) - prominent example of alarmist climate literature
[4] Every news broadcast should open with the climate emergency (Chomsky, Solnit)
[5] IPCC SR15 (2018) - significant 'alarmist' global warming report https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/