

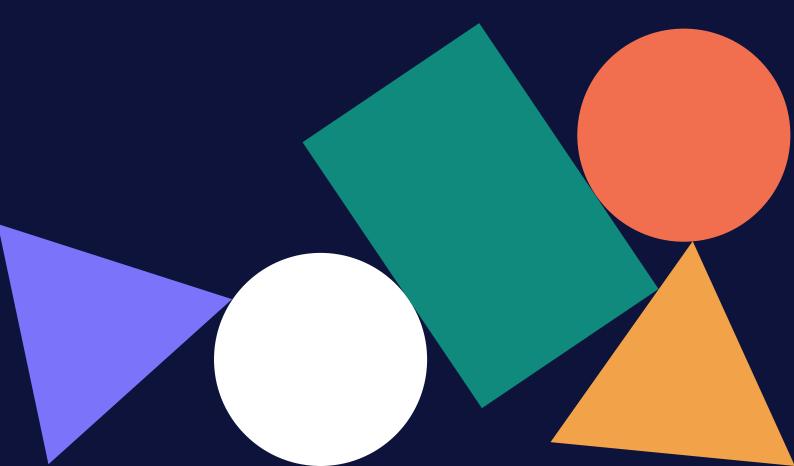
## What do we know?

# The impact of climate content on audiences' pro-environmental behaviour

Narratives around climate change on screen have a huge potential to affect audiences' awareness, knowledge, beliefs and, crucially, actions on climate change. We outline the current research on how effective depictions of climate change on screen are at impacting audience behaviour.

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Research insights



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#### 1. Introduction

#### Climate change is the biggest story of our generation.

How to create content which tells the story of climate change effectively is an ever-expanding area of discussion. However, the impact of this content on audiences' own behaviours needs equal attention. The TV and film industries have unparalleled collective audience reach. Accurately communicating the causes of climate change, the impacts already being felt and the projected future impacts, as well as, crucially, the solutions are all necessary in order to ensure a collective and fair transition to net zero. There is viewer demand for stories around climate change and sustainability, [1] with issues of eco-anxiety high on the agenda, especially among younger generations. [2] Climate change is the biggest human story of our lifetimes and there is demand to see this portrayed on screen. [3]

Creating engaging content across the spectrum of genres is the responsibility of the whole industry, but it also presents opportunities to tell a range of stories, with a variety of voices, and have a positive impact on society. The Climate Content Pledge, [4] signed by 12 major UK broadcasters in 2021, highlights the strategic will and acknowledgement of responsibility that the film and TV industry has in tackling the climate crisis. Now we need to act on this.

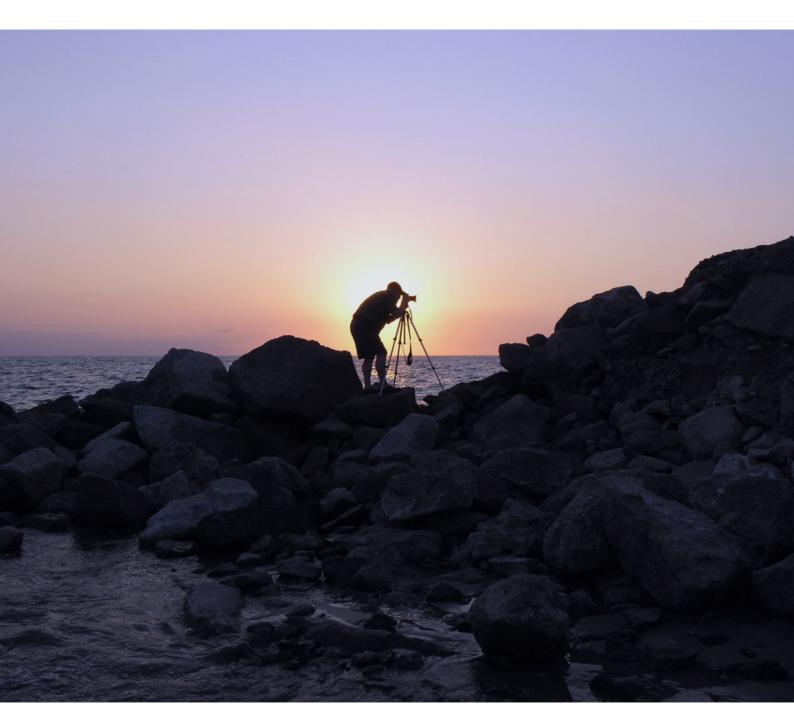
Communicating climate and sustainability issues effectively is absolutely vital to enable structural and behavioural changes to take place at the pace we know they are needed to keep warming below 1.5°C, and to mitigate the joint crises of climate and biodiversity. Household behaviours account for around 26.1% of the UK's total emissions, <sup>[5]</sup> and although structural, 'top-down' governance must drive and facilitate change, individual and household behaviours have the potential to make a huge difference to the interrelated crises of climate change and ecological decline. TV and films are trusted sources of information <sup>[6]</sup> on climate change and significant drivers of social norms and behavioural standards, <sup>[7]</sup> therefore there is huge potential within the TV and film industry to be a leader in telling the environmental and social stories of climate change.

This report presents a review of recent research exploring how climate content in TV and film has impacted audiences' pro-environmental behaviour, with industry recommendations.

The challenge lies in ensuring more and better content is produced with climate change narratives, plots, character traits and production, integrated and mainstreamed into the creative process across genres. The film and TV industry has always been hugely influential in creating societal norms, reflecting societal values and influencing audience behaviour, therefore it can be a force for good in tackling climate change. This is a collective challenge, with individual behaviours notoriously difficult to change. However, the TV and film industry is uniquely placed to construct positive role models, discuss and translate complex issues and engage broad audiences.

1. Methods

This report outlines the findings from an evidence review that synthesises current research, in order to explore the question: "What effect does climate content in TV and film have on audiences' pro-environmental behaviour?" Briefly, we examined peer-reviewed published works since 2010, focusing on work which explored the effect of explicit climate-related content on audience behaviour. We considered behaviour to include (but not limited to) environmental knowledge, concern, attitudes, values, beliefs, behavioural intention and measured behaviour. We synthesised this published work systematically, and present this research as recommendations for the industry by key themes that emerged from the data (characters, script, genre effects, post-viewing support and collaboration). More details of the methods can be found in Appendix 1.



## 2. Summary of findings

This research found that climate content, in the form of plot points, narratives, character traits and non-verbal actions, can influence audiences' behavioural factors and intention to act in a pro-environmental way. We summarise the current knowledge and provide recommendations for how to include effective climate content.

#### We found that:

- The majority of the studies focused on the effect of factual or documentary content on audience behaviour, but some other genres including scripted comedy were studied.
- Many of the studies explored the effect of a 'call to action' and 'post-viewing support' on audience behaviour, and aligning the climate messaging with a call to action was found to be effective.
- Long-term behavioural effects are hard to ensure but repeated exposure to the content and targeting habit-forming behaviours help.
- Environmental concern and attitudes are relatively easily raised through climate content, with some evidence of behavioural change, although this is usually short-term.

Factual and fictional content can be mobilised to make climate change action socially desirable, reinforce attitudes and increase consistency in pro-environmental behaviour. The research highlights that we cannot rely on facts alone to change hearts and minds. Affective storytelling is so important – work that appeals to people's values and emotions, not just logic and rational thought. Effective messaging will comprise of accurate facts and emotional appeal, as affect was found to have the most transformative effect and motivated action in audiences. Factual or fictional content that provides audiences with emotionally resonant characters, settings and storylines can model pro-environmental attitudes and behaviours in a way that allows viewers to empathise and identify with the cause. This is also important in giving the public a sense of personal agency within this complex and existential crisis.

Productions must make a conscious effort to include environmentally desirable practices. In fictional narratives, this could be through demonstrating decent levels of perceived realism and encouraging role affinity with characters modelling pro-environmental behaviours. Factual content can highlight stories from around the world of 'ordinary' people taking action. The evidence shows that focusing on 'extreme' characters, such as climate deniers, or showing depictions of environmentalists as caricatures reduces role affinity and engagement with messages. Understanding audience segmentation in relation to climate change helps align the values held with the depictions of climate change in storylines and production.

2

Fictional narratives were shown to have real potential to shift public opinion across a range of genres. However, to strengthen climate consciousness, it is important to get the facts right. Do not underestimate the influence of climate-sceptic content or exaggerated illustrations. While important tools for engaging less environmentally conscious audiences, dramatised portrayals of climate disaster can lead to disbelief, decreased scientific understanding and a weakened resolve to act.

This can be overcome through a more collaborative approach to making content. Working alongside environmental researchers and communications specialists will facilitate the effective delivery of technical information and may be key in giving rise to cohesive and accurate climate messaging. Experts can also assist you in providing post-viewing support to audiences, in the form of educational resources or opportunities to act, which has been proven to help convert behavioural intention to action.

#### 3. Characters

Personalities and character traits can be utilised to portray proenvironmental behaviours (both verbal and non-verbal) and make climate action aspirational.

- Attractive characters should model pro-environmental attitudes and behaviours.<sup>[8]</sup>
- Characters/personalities can normalise pro-environmental behaviour by implicitly demonstrating it, such as driving electric cars, eating a plant-based diet, wearing second-hand clothes or re-wearing.
- Don't just focus on environmentalists show how 'ordinary' people can take action so audiences can empathise with characters, real and fictional.
   Highlighting the 'imperfect' environmentalist can help address apathy and increase agency.
- On-screen personalities must be trustworthy and relatable, be it in the form of characters with whom audiences have high affinity or by including respected opinion leaders in output.<sup>[9]</sup>
- Emotion-based interventions have the biggest impact in raising knowledge and intentions. [10] Being able to connect emotionally with characters practising pro-environmental behaviour can encourage audiences. [11]

#### Spotlight: Normalising pro-environmental behaviour

Characters and personalities on screen who are not 'extremes' within society (e.g. climate sceptics, 'uber-environmentalists') are the most engaging and result in audience resonance with the characters. Where these characters are shown conducting pro-environmental behaviours (within the script or through non-verbal means) can encourage audiences' perception of behavioural norms to shift, compared to where extreme characters are shown. Caricatures of environmentalists should be avoided, as these depictions were considered extreme and the behaviours unusual, therefore the audience relate to them less strongly. This is mirrored by exaggerated depictions of the impacts of climate change, such as in The Day After Tomorrow, which reduced audience understanding of climate change. [7] [12]

#### **Case studies**

In Season 3 of Happy Valley, the respected and virtuous principal character Sergeant Catherine Cawood demonstrates pro-environmental behaviour. When she is helping an ex-convict clear out her flat, she suggests giving away surplus items to Freecycle. We also see compost bins in the background of her house and she jokes that 'Greta Thunberg had to come and speak to us' to deal with all the methane produced in her yoga class. Implicit references to sustainability are also made with panning shots featuring wind turbines.

Succession depicts a high-carbon lifestyle, as characters jet around the world and exhibit the high-consumption lifestyle of the uber-rich. However, the characters are not people you generally aspire to be like; they are materialistic, greedy and out of touch. Furthermore, James Cromwell plays a serious environmentalist – Ewan Roy. After he transferred his inheritance to Greenpeace in the show, Greenpeace saw a surge in people trying to find out how they could leave money to the charity.

In BBC documentary The People v Climate Change, members of the public are randomly selected to take part in a summit debating the ins and outs of climate policy. 108 ordinary Brits grapple with questions about our future, revealing nuanced perspectives and a multitude of challenges, as well as a sense of togetherness and motivation to make changes amongst some vocal members.

Michaela Coel's I May Destroy You provides an interesting and much-needed Black British perspective as a counterpoint to much of climate coverage. Arabella is hired as an ambassador for an ethical vegan food advocate organisation (Happy Animals), but it becomes clear she was selected as a diversity hire. When this news is shared at a party, friends call out white people profiting from privileged environmentalism, highlighting intersections between climate and racial justice. Arabella proceeds to eat real chicken on Happy Animals' live feed in a hilarious and meaningful rebuff. In reality, Michaela Coel is mostly plant-based, and was in fact eating fried cauliflower!



## 4. Script

How climate change is framed affects how audiences perceive the urgency and relevance to their lives.

- Scripts must speak to emotions to induce attitudinal and behavioural changes you cannot rely on fact alone.
- Negative framing can induce fear and guilt, which in some cases increases motivation to act.
- However, the focus should be on positive emotions that encourage a change in implicit attitudes associated with behaviour change, and presenting solutions can empower.
- Don't be afraid to engage directly and explicitly with climate change debates at a range of scales (individual behaviours to structural and economic challenges). Engaging stories can arise from discussions of lowcarbon lifestyles through climate change narratives and giving characters sustainable occupations or causes.

#### Spotlight: Explicit climate change narratives

Studies found that incidences of low-carbon choice are meaningfully affected by viewing emotive or informational film clips, but emotion-based interventions had the strongest effect. <sup>[13]</sup> Concurrently, in terms of writing style, research suggests not to overwhelm viewers with superfluous scientific jargon; approaches must be assertive and comprehensible with 'realistically and practically oriented content'. <sup>[14]</sup> Other analysis found that content weakens any environmental messaging present by referencing global warming only in a cursory way. <sup>[15]</sup> This highlights the importance of embedding climate content throughout television and film; making it a centrepiece, not just an add-on. In order to ensure audiences feel the content is relevant to them, reducing the psychological distance of climate change (i.e. how far the issue feels geographically, socially, temporally and how uncertain impacts and solutions feel<sup>[16]</sup>) can be achieved by avoiding abstract notions of responsibility and through the active voice.

Furthermore, several studies point to the importance of consistency and repetition in maintaining attitudes in the long-term to encourage environmentally desirable behaviours.<sup>[7]</sup>

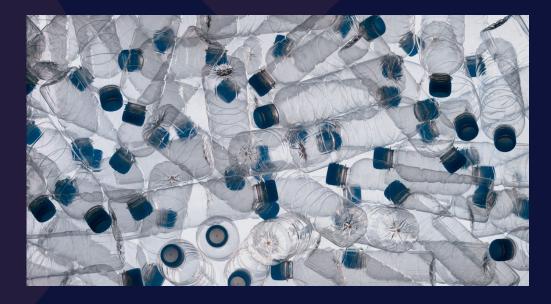
#### **Case studies**

Simon Amstell's mockumentary Carnage imagines a near-future where everyone is vegan, as all animal products have been outlawed after a steady progression of social uprising. The film pokes fun at vegans, while simultaneously, through clever and self-aware satire, inducing a perspective shift that highlights the 'carnage' of the meat industry that is hidden in plain sight. The script is self-aware and avoids shaming anyone by using comedy to soften the challenges levelled at meat-eating, and its concurrent negative environmental and animal welfare impacts.

In After Life, Ricky Gervais' dark comedy exploring the loss of the main character's beloved wife, language of the natural world invokes a human-nature connection. When discussing how he wants to make a change, living his remaining years on earth being nicer to others, with fellow widow Anne, she cites a Greek proverb: 'a society grows great when old men plant trees, in the shade of which they will never sit'. This implicit reference to leaving the planet in a better state prompts audiences to consider their legacy, and think beyond their own lifespan.

In Parasite, a film exploring class inequalities, the central wealthy family moan that heavy rainfall has ruined their picnic. Elsewhere, the working-class family who serve them face terrible flooding in their family home. The following day, the mother of the upper-class family speaks with a friend on the phone, asking: 'Did you see the sky today? Crystal clear. Zero air pollution. The rain washed it all away.' This subtle invocation of global warming illuminates the skewed impacts of drastic weather events and the climate privilege that wealthier people benefit from and can be oblivious to, despite bearing much of the responsibility.

References to climate change can be normalised in seemingly unrelated scripted and non-scripted factual television, too. For example, in an episode of Richard Osman's House of Games, the celebrity contestants are asked to approximate the number of plastic bottles used by the average person in a year.



#### 5. Genre variation

Integrating climate content authentically across genres can be done by understanding the myriad ways climate change relates to social, economic and environmental issues. Considering the target audience can help frame climate content in the most relevant way.

- Climate change can be included in every genre, through different communication types and by appealing to different behavioural factors (e.g. emotion, knowledge, concern, attitudes, norms).
- All genres can include climate content in creative ways, as effective messaging can be implicit or explicit.
- Intense dramatisations do have potential to shift public opinion, particularly amongst less-engaged audiences.<sup>[12]</sup>
- However, exaggerated illustration can reduce public understanding or cause avoidance. [9]
- Consider ways in which you can make portrayals accurate, while maintaining popular appeal.<sup>[8]</sup>
- Understanding how the target audience feels about climate change (and how they act) is essential to creating the most effective climate content for them.

#### **Spotlight: Edutainment**

Several studies highlight how effective it can be to incorporate information and modelling behaviour in the edutainment format. For example, edutainment television programming aimed at farmers in Kenya and Uganda was shown to successfully lead to uptake of more productive and sustainable agricultural practices by showing real-life examples farmers could empathise with. Howell notes that embedding implicit and explicit climate-friendly behaviours in fictional narratives that are not seen to be primarily about climate change can reach a wider audience, and provide the positive framing and solutions messaging required for attitudinal and behaviour changes. For example, viewers of an episode of Law and Order about exposure to environmental toxins saw an increase in knowledge and likelihood of reporting anomalies in numbers of cancer cases to authorities.

#### **Spotlight: Satirical programming**

Comedic content can be a useful means of inventively delivering information about the climate crisis. For example, satirical news programming can provide an alternative to traditional news media as a means of reaching audiences less engaged with climate matters. One study found that Last Week Tonight was especially effective at encouraging appreciation of the scientific consensus on anthropogenic climate change amongst this demographic. Research found that exposure to satirical news coverage influenced viewers' own beliefs about the climate crisis and perceptions of scientific consensus. [21] The audience is key, as research found that comedic environmental narratives increased behavioural intent, however if this was combined with a persuasive appeal, intentions decreased in certain demographics, as audiences were 'turned off'. [22]

5.

#### **Spotlight: Dramatisations of climate change**

The influence of climate fiction (cli-fi) on audience perceptions, attitudes and behaviours is complex. While entertaining, but exaggerated displays of the impacts of climate change can succeed in raising public concern, films like The Day After Tomorrow and The Age of Stupid conversely reduced public understanding of the issues and belief in the likelihood of climate disaster. [19] [23] [12] The effects are also varied depending on audience members pre-viewing levels of engagement with climate matters and action. [24] It is also suggested that films like this may be better suited as an entry point for audiences not engaged with the issue. Nevertheless, it was found that some viewers expressed a strong desire to act and less than 5% felt there was no point in taking action. [9] In general, one study found that narrative films with greater levels of perceived realism and role affinity produced more favourable attitudes. [25] A level of believability is required in order to maintain engagement with the messaging, and therefore impact audiences' behavioural response. [15]

#### **Spotlight: Documentary**

Emotional and informative clips of a documentary about insects were shown to have a significant effect on behavioural determinants. However, changes in emotion were the most effective; in this case a non-verbal, less conventional style of documentary was more effective in development of environmental knowledge and feelings, as well as attitudes and beliefs, than the traditional documentary format. Another study found that both natural history films and conservation-focused documentaries led to audience members actively seeking out further information on the topics; this highlights the importance of providing help with accessing post-viewing support materials and directing audiences to trusted, accessible information sources. Emotive and informative clips from Al Gore's An Inconvenient Truth were shown to decrease levels of happiness and calmness in participants, but increase motivation to act and subdue a sense of the situation being out of our control. Issues of eco-anxiety and apathy, which may be a barrier to pro-environmental behaviour, can be overcome by increasing agency in individuals, presenting solutions which appear achievable and relevant.

#### **Case studies**

Children's television is a great form of edutainment. In Peppa Pig, the children see the bin man arrive and become interested. Mummy Pig and Daddy Pig explain 'all the things we can't use again, we put in the rubbish... but all the things that can be used again are put in these recycle boxes'. Embedding messaging like this in programmes for young children is a useful means of instilling pro-environmental values in children and will be important in raising a climate-conscious citizenry.

In the sitcom Community, the community college runs a 'green week'. The Dean renames the college from Greendale to Envirodale, proclaimed on many posters, before a student points out that their name already has eco-friendly connotations. The Dean says they need to reprint the posters, to which his assistant replies 'we already printed 5000'. He answers 'well print 5000 more, I'm trying to save the planet here!' Whilst remaining satirical and very watchable, the episode prompts audiences to notice wasteful behaviour and consider green best practice.

Brazilian telenovelas have a long tradition of dealing with the themes of current affairs and shaping public opinion. In Aruanas, a 2019 telenovela made by Globo, three friends run a non-profit organisation to investigate environmental crimes committed by a mining company in the Amazon. The show makes the environment a digestible topic in telenovela form, sensitising audiences to climate issues while retaining its trademark dramatic plotlines.

The BBC's intense drama Years and Years provides a chilling projection of where Britain could end up in the next two decades, highlighting the devastating potential impacts of climate change, racism and classism. Weaving together drama, near-future sci-fi and sociopolitical commentary, a sense of dread pervades throughout. However, the characters' ability to withstand the worst and demonstrate human togetherness and resilience provides a message of hope.



### 6. Post-viewing support

Providing post-viewing support to audiences can help reduce eco-anxiety and apathy, while enabling audiences to seek further information and facilitate positive behaviours through a collective 'call to action'. Creating resources can also enable direct impacts of content to be evaluated.

- Film and television can inspire pro-environmental attitudes and behaviours.
   The effect is stronger when post-viewing supplemental materials are provided.<sup>[17]</sup>
- Research shows that providing post-viewing support helps to convert behavioural intentions into action. [29]
- Without support such as reminders and long-term engagement strategies, the intention to act prompted by viewing media content is short-lived. [26]
- Productions can capitalise on heightened concern immediately after viewing by providing viewers with opportunities to act straight away (aligned with a call-to-action within the content).<sup>[30]</sup>
- Broadcasters should also consider placing climate-friendly advertisements directly after climate-focused/nature documentaries.
- Audiences also benefit from continued exposure in their daily lives, so keep incorporating and mainstreaming climate messaging into your productions!<sup>[31]</sup>

#### **Spotlight: Call to action**

Participants who watched a documentary about conserving marine environments exhibited a rise in environmental knowledge, attitudes and behavioural intentions. However, while those supplied with post-viewing support materials mostly maintained those levels after ten weeks, participants who did not saw a marked decrease. [26] Similarly, several other studies found that increased willingness to act immediately post-viewing did not translate into action in the longer term. [32] The provision of post-viewing support can have a significant impact on audiences' response to content.

#### **Spotlight: Resource creation**

There are various strategies for post-viewing support which can help audiences increase pro-environmental behaviours after viewing content. They suggest that content should be used in conjunction with other educational tools, like providing explicit strategies and forums for collective action. Links or QR codes can be provided to sign up for public pledges, goal setting or behaviour implementation. Interacting with viewers at the cinema was even suggested; volunteers could approach cinema attendees with a tire gauge to ensure tires are properly inflated, hand out phone numbers for political representatives' offices, or request signatures on petitions. The impact of content on audiences' proenvironmental behaviour can be maximised by targeting certain high-impact behaviours such as energy consumption, meat consumption and travel.

6.

#### **Case studies**

In Hugh's War on Waste, Hugh Fearnley-Whittingstall investigates the high level of waste produced in the UK, from wonky vegetables rejected by supermarkets, to unrecyclable coffee cups and Amazon packaging. He encourages members of the public to act, for example through tweeting or signing up to a pledge to reduce food waste.

Cowspiracy, a blockbuster documentary investigating the environmental impacts of the meat and dairy industries, displays a link to its website at the end of the film. This website offers many supplemental materials, such as a plant-based meal-planning tool, pledges to sign up for, plus a regularly updated facts page of research referenced in the film and further resources for more information. 21.9% of respondents of the global vegan survey said the first thing that made them seriously consider being vegan was watching a documentary. [34]



#### 7. Collaboration

Working with experts across the climate spectrum (e.g. academics, charities, consultants, communicators) can ensure that accurate information is presented and trust in the science is increased.

- Collaboration with experts increases the accuracy of science presented and messages portrayed, as well as understanding the impacts of the content produced.<sup>[19]</sup>
- Collaboration with environmental organisations can help to align with relevant policies or campaigns, direct toward post-viewing support and align with a 'call to action'.
- Work with policymakers to align content with behavioural or environmental policies.
- Locate opinion leaders and include them in output. [35]
- Work with environmental and climate experts to get the science right and highlight scientific consensus, as this increases trust in messages (which is especially important for genres beyond factual, who may already have in-house environmental researchers), although specialised content may need external expertise.

#### **Spotlight: Measuring impact**

In order to assess the effect of content and programming, impact measurement is needed to rigorously develop an evidence base around the effects of different types of content on different audiences.<sup>[24]</sup> Collaborating with experts in sustainability and behaviour can enable effective measurement of audience response, and ensure a balance between messaging and entertainment.<sup>[18]</sup>

Measuring impact often found a drop-off in behavioural responses over time, with a study on The Age of Stupid finding audience motivation to act and their perceived agency increased immediately after seeing the film, but had dropped off after ten to 14 weeks. [8] This was also found in a study based on An Inconvenient Truth, where audience purchase of voluntary carbon offsets were measured. There was a short-term increase in purchases, but a year later these same people did not purchase again. [36] This indicates the need for repeated showings, consistent messaging, or a strong call to action to maintain proenvironmental behaviours.

A significant amount of work exploring audience behaviour is around testing the willingness to donate to a partnered organisation after watching content (usually documentary footage). The findings show that connection to nature increases audiences' willingness to donate to a conservation organisation, [37] as well as greater realism and levels of role affinity. [22] In the case of The Day After Tomorrow, donations to climate mitigation organisations increased, without an increase in individual behaviours or knowledge, while it also negatively affected the realism of viewer understanding of climate change. [12] This complex response indicates the behaviour changes that can be encouraged, potentially without needing to alter underlying knowledge, and highlights the role different genres can play in engaging with climate storylines and framing.

#### 7.

#### **Spotlight: Aligning with policy**

Edutainment has been found to be an effective behavioural strategy when aligned with policy. In a specific case around agricultural practices, farmers were found to identify with the content when they were shown real-world examples. This example was successful due to its targeted approach, and generalisability of the efficacy of edutainment is tricky to assume without more data on different edutainment programmes. Aligning climate messaging with pro-environmental policy has been shown to increase uptake of certain behaviours, and could be used as a way to increase audience engagement with one-off behaviours, such as purchasing more sustainable appliances or infrastructure such as solar panels or heat pumps.

#### **Spotlight: Using opinion leaders**

This can include environmental organisations, scientists or those with a platform who can inspire change. Research has found that working with conservation organisations such as WWF (like in Netflix's Our Planet) can create content underpinned with data and evidence around audience responses and proenvironmental behaviour.<sup>[27]</sup>

Using scientists or NGOs helps ensure that the science is accurate and up to date, which prevents inaccurate science or scepticism being perpetuated that can lead to apathy and disengagement from the audience. [15] Promoting consensus messaging (the agreement of scientists around the causes, impacts and solutions around climate change and sustainability challenges) through satire (Last Week Tonight), has been shown to increase viewer beliefs around climate change among less engaged audiences. [19] This relates to the role of trust in the messenger, which was found to be highly important in effecting audience behaviour change. [9]

**7.** 

#### **Case studies**

The BBC's Green Planet was produced in collaboration with environmental psychologist researchers, which influenced the narrative of how the flora was anthropomorphised to decrease the psychological distance felt between the audience and the natural world, which has shown to increase proenvironmental behavioural intention.<sup>[44]</sup>

Our Planet (Netflix) was partnered with the WWF to provide scientific review, which enabled accurate science to be presented on screen, as well as supporting audience impact evaluation, in addition to the creation of a host of resources for schools.<sup>[38]</sup>



#### 8. Conclusion

Research has shown that TV and film which contains climate or sustainability narratives,<sup>[11]</sup> framing<sup>[13]</sup> or character traits increases environmental knowledge,<sup>[14] [39]</sup> attitudes,<sup>[13]</sup> values,<sup>[22]</sup> emotional connection,<sup>[10] [13] [25]</sup> and even audience behaviour.<sup>[12] [33]</sup>

The impact of non-fiction and documentaries is well documented. [24] However, mainstreaming climate change into storylines, characters and productions in comedy,[7][40] satire<sup>[19]</sup> and news<sup>[41]</sup> have also been proven to positively impact audiences' behaviour, societal norms and national policy. There is also potential for sport, scripted[1] and non-scripted drama to increase engagement with these issues. A key theme was the importance of understanding the target audience's underlying attitudes, awareness and beliefs around climate change, in order to include the most appropriate type of climate messaging. Support is needed to develop 'green skills' in the industry among creatives, [42] [43] to increase the climate literacy required to meet the audience demand for environmental and climate content. Mitigating the climate crisis requires an engaged and active citizenry; television and film provide opportunities to reach a wide variety of people and are significant in shaping public understanding of and belief in climate change. Changing and encouraging pro-environmental behaviour is a complex process, which relies on understanding the underlying values, attitudes, social norms and existing behaviours of the intended audience. Designing content with environmental or climate messages requires tapping into those components of behaviour effectively, then giving people the capability, opportunity and motivation to make changes in their own lives. [45] As a result, the industry has a responsibility to play an active role in promoting environmentally desirable attitudes and behaviours, in order to bring everyone along the journey and ensure a just transition.

#### **Acknowledgements**

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## 9. Appendix 1: Methodology – Rapid evidence synthesis

Rapid evidence synthesis enables a large volume of literature to be searched and sifted systematically, which is especially useful when, as in this case, the literature is spread across a range of disciplines with a range of lexicons. The synthesis was constructed around the question "What impact does climate content in TV and film have on audiences' pro-environmental behaviour?"

The evidence synthesis protocol was developed based on the well-established PICOS framework (population, intervention, comparison, outcome and study context), where exclusion and inclusion criteria were developed in order to identify the most relevant literature for the question. Initial scoping searches identified key papers that were mined for keywords and key concepts, which were used to construct the search strings. These search strings were used to find literature in three databases (Web of Science, Scopus and Google Scholar). This resulted in 1269 records screened, and two rounds of sifting resulted in 29 studies in the final synthesis. Both authors were involved in the sifting process and decisions were independently corroborated. The final 29 studies were all examined using a predetermined data extraction framework, in addition to a critical appraisal framework, to identify any issues around risk of bias, transparency and ethics.

## Once the database was created, it was analysed using the following questions:

- 1. What questions have been asked within the research body?
- 2. What research gaps can be identified?
- 3. What components of behaviour are examined and how are they measured?
- 4. What recommendations can we draw out for industry?
- 5. What recommendations can we draw out for future research?

Themes were drawn out from these answers and iteratively developed. The recommendations for industry form the majority of the outputs reported.

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