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Subtitles to Save the World

Understanding how the broadcasting community is covering climate

A report by albert, BAFTA's TV industry-backed project on environmental sustainability

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#catsvsclimate

Foreword

From chief channel strategists to first-time screenwriters, everyone working in the TV industry has the potential to use TV content to change, or at the very least nudge, humanity towards a better future. This report has been written for telly folks of every kind. Using a year's worth of subtitles, we've been able to provide an assessment of how the industry is currently talking about the environment and, by identifying where coverage is lacking, suggest where greater integration might be possible.

The TV industry's core principles are based on informing our understanding of the world, stimulating knowledge and learning, reflecting UK cultural identity and representing diversity and alternative viewpoints[1]. As climate change picks apart our global society with greater speed, ferocity and consequence than any other issue, this analysis illustrates that environmental terms are currently mentioned on television a similar number of times to the words 'zombie', 'urine' and 'rhubarb'. It also highlights that mentions of 'beef' (a food source with one of the highest carbon footprints per gram) were 20 times greater than all of the environmental search terms combined.

Whether you are surprised by these figures or not, it is time to consider what we would like TV's cultural response to climate change to look like in the future. Should television simply report the woes of an unsustainable society, or help move society towards a sustainable future? And are we, as content consumers, happy with the industry's current performance?

This research has been conducted without prejudice. It is no surprise that music-based channels rate more highly for cribs and beats than climate and beef but every genre has a role to play. In natural history, we've found an obvious ally – it's an easy way to talk about the state of our planet when looking at its splendour. But our impact on the environment comes from within our society not from nature, and we are failing to identify and act on the opportunities to highlight our impact on the environment in other genres.

Climate is the food we eat, the homes we sleep in, the holidays we go on and the parks we play in. Climate is about our relationship with nature, the societies we live in, the bedrock of our economy and the country we vote in. Climate is every aspect of society. The TV industry will have successfully acted upon its obligation to society when this undeniable reality is represented on-screen.

Members of BAFTA's environment project, albert, have committed to use their platforms to profile urgent, optimistic, solution-based, accessible, authentic, sustainability stories. We must all start by imagining a sustainable society and appraising whether the content we're creating is supporting the transition towards it. While this report shows there is much work to do, I am convinced that the opportunity for greater action remains within our reach.

Aaron Matthews,
Head of Industry Sustainability – BAFTA albert

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[1] The Communications Act 2003 - Section 264 - 6

Executive Summary

This report uncovers how the broadcasting community is currently talking about the most dangerous risk to society's future; the environmental crisis and its solutions. This has been attempted though the analysis of the frequency and sentiment of words linked to society's impact on the environment, using subtitle data information.

The research, conducted by Deloitte, analysed a year's worth of subtitling data from BBC, ITV, Channel 4 and Sky, representing 40 channels and 128,719 distinct programmes between September 2017 to September 2018. The research uncovers how often words associated with five key sustainability topics were mentioned: food, travel, resources, energy and climate knowledge.

The results revealed that the climate related words that were mentioned most frequently are not those that contribute most significantly to an individual's carbon footprint. For instance, words associated with 'energy' account for 6% of mentions despite energy representing the biggest part of the average person's carbon footprint at 24%. More commonly used phrases were 'vegan' and 'vegetarian' however food accounts for 12% of an individual's typical carbon footprint. In addition, the research identifies that issues and problems dominate coverage compared to solutions, with references to climate change and global warming far outweighing terms such as electric cars or solar power.

The research also contrasted the prevalence of key sustainability words to other words; comparing mentions of climate change (3,125) to brexit (68,816), chocolate (32,919), cake (46,043), Shakespeare (5,444) as well as the BBC (87,875) and ITV (7,108) themselves. This report invites decision makers to appraise their industry's efforts to engage audiences with climate change, by revealing that the issue currently carries similar representation to urine (2,000) and zombies (2,488).

The report also identifies unlikely positive examples of programmes carrying a climate message, including You've Been Framed and Escape to the Country, offering hope that programmes of every genre can identify and act upon authentic and creative ways for audiences to access the climate narrative.

What we did

128,719 programme's subtitles between September 2017 and 2018 were analysed for the presence of the following terms:

Food: food waste, vegan, meat free, vegetarian, meat substitute, food miles

Resources: upcycle, single use, recycle, environmental impact

Travel: electric vehicle, hybrid car, clean air, carbon offsetting, electric car

Energy: green energy, solar power, wind power, renewables, clean energy

Climate knowledge: carbon emissions, climate change, carbon footprint, global warming, eco-friendly

From the following sources:

	BBC	Channel 4	ITV	Sky
Total volume of subtitles	162,459	6,637	59,454	8,345
Volume of distinct subtitles	62,198	4,428	55,327	6,766
Volume of distinct subtitles with programme titles	23,785	4,428	41,259	-
Volume of distinct subtitles that have IMDB info	19,181	4,427	31,707	-
Volume of distinct programmes with titles	3,823	599	2,481	-
Volume of distinct programmes that have IMDB info	2,614	598	1,448	-

Volumes are skewed across broadcasters.
BBC News excluded.

The themes for analysis were chosen based on those which fell within the UN's sustainable development goals that relate to the environment.

Words were chosen to populate each theme using a combination of manual selection and machine learning.

The word list was then expanded using language association tools however not all new terms were added as some were considered false positives (e.g. "vegetable" strongly related to "vegan" but in most instances was not relevant to environmental impact).

A lack of available metadata made attempts to classify programmes by genre challenging. In future projects, we will aim to better understand the types of content that are currently including environmental themes by attributing genre and sub-genre information. Another ambition for the future is to capture full sentiment analysis to indicate whether our television coverage of the topic is neutral, positively or negatively biased.

It wasn't possible to attribute sentiment to every instance of the search terms we analysed, nor was it possible to quantify whether mentions were supportive, impartial or dismissive. However, spot checks were carried out to indicate relevance and to begin to build a picture of sentiment.

General spot checks confirmed that across all the findings, 90% of instances were used in the context expected, i.e. using beef to refer to food rather than climate arguments. Exploring beef in more detail, analysing 100 of the 14,984 total mentions of beef revealed that 95% of these mentions were in the context of beef as a food source, 5% of mentions were out of context and 0% were in relation to reducing beef consumption in order to reduce our carbon footprint.

The findings below aim to:

• create a repeatable and robust benchmark for the current coverage of key environmental sustainability themes in UK broadcasting

• to enable future comparison of how coverage changes over time

Findings

Word Rankings

Theme	Search term	Count
Food	food waste	546
	vegan	2907
	meat free	100
	vegetarian	3550
	meat substitute	37
	food miles	57
Resources	upcycle	459
	single use	641
	recycle	1973
	environmental impact	248
Travel	electric vehicle	419
	hybrid car	22
	clean air	717
	carbon offset	11
	electric car	476
Energy	green energy	213
	solar power	193
	wind power	180
	renewables	391
	clean energy	136
Climate Knowledge	carbon emissions	222
	climate change	3125
	carbon footprint	220
	global warming	799
	eco-friendly	252

Examples

❞ **"Yup dude, spot on. Meatloaf's gone green. For his next tour he'll be cutting carbon emissions by rowing to all his gigs."** You've Been Framed, ITV

❞ **"I'm a great fan of green energy, but if it's at the expense of nearly 50 million people, you've got to wonder where the balance is."** The Mekong River, BBC

❞ **"I have got some mates from Weatherfield Vegan Association coming round for a talk". "Well I'm sorry but you're gonna have to talk about avocados somewhere else."** Coronation Street, ITV

❞ **"We'd like the new property to maybe include some eco-features. So, we're thinking more along the lines of solar power. Maybe ground-source heat pump system. Something just to be a little bit more greener."** Escape to the Country, BBC
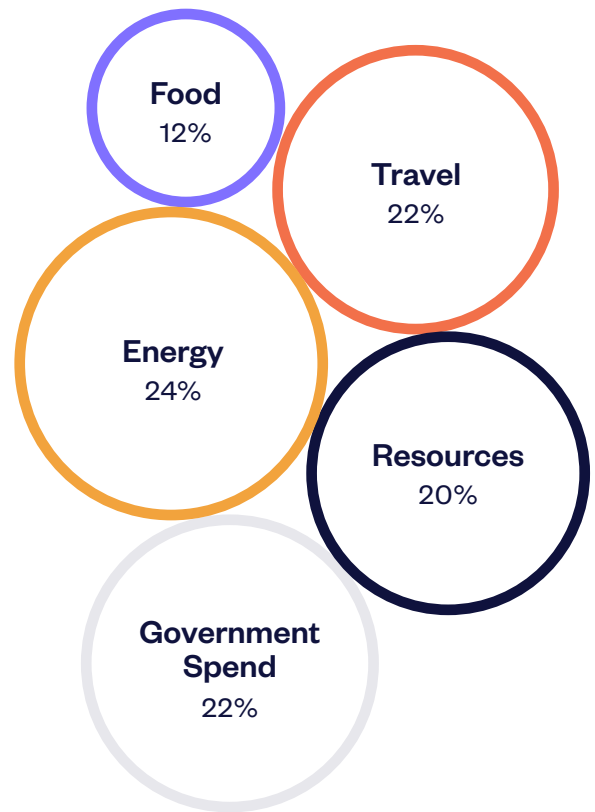
Mismatch between impact and prevalence

The key sustainability themes: putting it into perspective

Our mentions across themes

Food
40%

Knowledge
26%

Travel
9%

Resources
19%

Energy
6%
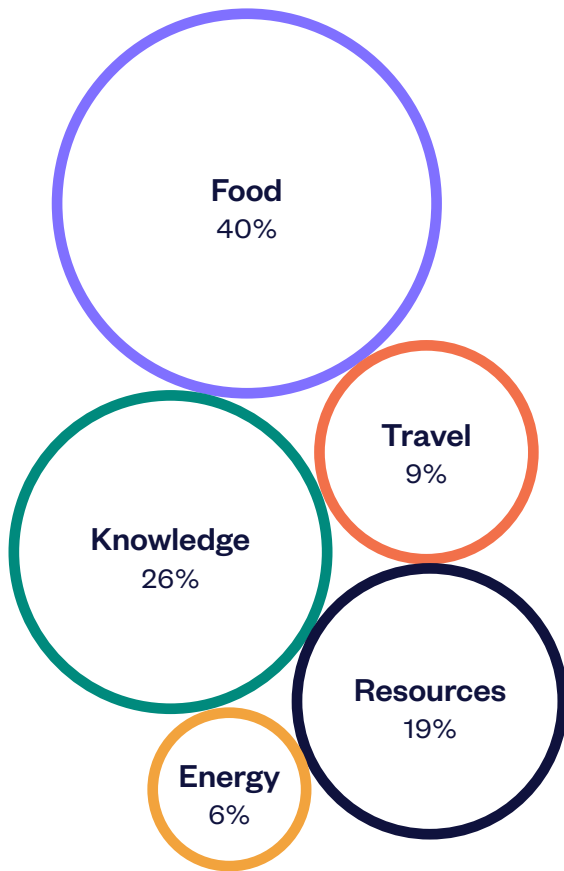
How each area contributes to the average UK citizen's carbon footprint

Food
12%

Travel
22%

Energy
24%

Resources
20%

Government Spend
22%

Source: West C., Owen A, 2019, Unpublished research, Stockholm Environmental Institute - University of York.

Words for comparison

god	213,966	drugs	48,999	lamb	16,771	motherfucker	2,471
government	170,258	cake	46,043	beef	14,984	bikini	2,382
dog	105,245	queen	45,501	cats	14,454	goldfish	2,284
weather	99,267	trump	38,825	pizza	13,027	rebellion	2,095
Christmas	96,798	coffee	36,060	ITV	7,108	Yemen	2,055
BBC	87,875	cheese	32,972	gender	6,104	broadband	2,010
hospital	82,436	chocolate	32,919	picnic	5,949	urine	2,000
brexit	68,816	plastic	22,773	Shakespeare	5,444	mysteries	1,989
football	63,359	moon	22,708	disco	4,933	gaga	1,978
tea	60,060	beer	21,648	gravy	3,942	bowie	1,974
sex	56,307	criminal	19,923	zombie	2,488	rhubarb	1,948

The research uncovered the prevalence of a huge number of words which were used more than any of our climate change terms, the selection above has been chosen to help add context.

What might the TV industry learn from the findings?

This report has been released by albert to coincide with the publication of Planet Placement (www.planetplacement.co.uk), a new resource for TV creatives. Planet Placement seeks to assist TV creatives with effective environmental audience engagement. It outlines the most pressing planetary issues, makes specific industry requests, suggests opportunities for different genres and offers guidance with case studies and content inspiration. With the same key words at the core of planet placement and the subtitle analysis, this report identifies the industry's comparative lack of engagement with the planet placement objectives at present.

It is clear from these findings that climate and the environment are not integrated into programming in any meaningful way. Climate is largely only mentioned when talking about the environment rather than bring brought into the conversation of other topics.

An example of a topic which is currently better integrated is money (383,509). Cost is often brought into conversations about food, furniture and fashion. Should the TV industry wish to bring the environment into the cultural conversation, it should seek to find the environmental angle of other topics just as naturally as money is currently brought into these conversations.

The gap identified between the carbon footprint of UK individuals and those environmental terms found most frequently in the analysis is the gap the industry must seek to fill. It represents an exciting opportunity. In order to help combat climate change, colleagues must better understand the issues we are facing and find ways to profile and celebrate solutions, urgency, relevance and opportunity. More than anything, these findings demonstrate the need for climate strategy.

Although overarching sentiment analysis was not possible, identifying variation is interesting. While the research identified huge instances of positive profiling (i.e. 'And my shower gel is vegan shower gel. That's the way to go.' First Dates, C4), there were also many examples which might seek to dissuade engagement with planet positive behaviour such as language around 'climate change winners and losers'. Surely we can no longer talk about 'climate-change winners' when the facts tell us that ultimately there can be no winners. If no action is taken then we're heading towards total human extinction as a result of climate change.

Although looking at individual programme examples does not give a true picture of the industry's overall efforts to celebrate sustainable living, recognising that some mentions could be discouraging planet positive behaviour is also important.

Climate change was first reported in 1912, and yet we still find ourselves on the verge of a climate catastrophe today which suggests that merely reporting the facts cannot remain the industry's sole approach; comedy, drama and entertainment have different but equally important means to create engagement and tangible solutions.

Closing thought

"The TV industry's call to address climate change is clear. Reducing our impact is a given, but our real opportunity lies in the programmes we make, and in our ability to use powerful human stories to connect audiences with the world around them. We need to understand the links between climate change and society, and act strategically to ensure we do everything in our power to avert the climate crisis.

Though it may seem that our future has been taken from us, history is still being created. It is time to write a different script and share it with the world."

Dame Pippa Harris DBE
BAFTA Chair

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albert is a collaborative BAFTA, indie and broadcaster backed project that brings the screen industries together to tackle their environmental impact and inspire sustainable living. Founded in 2011 and governed by an industry consortium, the group's objective is to empower everyone working in film and TV production to understand their opportunity and to know how they can make a change.

The project offers events, training, certification, a bespoke production carbon calculator and a 100% renewable energy procurement project. Each year over 1000 productions use the albert calculator with a further 300 also applying for albert certification.

albert recently launched Planet Placement, a new online hub designed to inspire the creative community and explore opportunities on engaging audiences on the topic of environmental sustainability.

We are leading a charge against climate change; bringing the screen industries together to tackle our environmental impact and inspiring our audiences to live sustainably through content.

We are albert. So are you.

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