



MONASH  
University

# The power of media storytelling to generate environmental impact at scale

Key lessons from interviews with 28 Australian  
environmental media-makers

September 2023



CSIRO Australia's National Science Agency





In 2022 and 2023, CSIRO and Monash University researchers interviewed 28 environmental media practitioners – including producers, directors and social media-makers – from across Australia.

We wanted to understand how media-makers design and apply creative strategies to make environmental media with real impact.

The goal of the research was to inform broader understanding of how changemakers can improve their environmental impact through media, and we wanted to discover opportunities to improve impact by integrating insights from humanities, social and behavioural science. The results follow.

In short, there are opportunities to foster collaboration between the sciences and the arts. Then, we can leverage the combined power of scientific impact evaluation, behavioural science principles and talented storytelling to achieve a shared goal of achieving social and environmental impact.

**Authors:** Danie Nilsson (Behavioural Scientist, CSIRO), Aneta Podkalicka (Media and Communication Studies, Monash University), Simon Troon (Film and Screen Studies, Monash University).

*‘The bottom line is you use the scientific principles of empiricism, you actually just go test it. Everybody likes to think their films cut through or their media cuts through, or their videos cut through and change behaviour but the reality is very few do.’* INTERVIEW PARTICIPANT



# What and why: Environmental problems and the promise of digital media

We need to make big global changes to address environmental problems, from mitigating climate change and halting biodiversity loss, to improving energy efficiency and reducing waste.

At the core of all these problems is human behaviour. This includes the social and political systems and values that drive our behaviour. So, to make a positive environmental impact we need to shift and influence societal values, norms and behaviour. This requires interventions that can reach millions of people globally and achieve rapid transformation.

Media is a powerful tool to enable these scaled-up interventions.

Around the world, people are increasingly using media – from full-length documentaries to TikTok – to encourage positive change. For example, we’re seeing the third series of the ABC’s *War on Waste*, and new reality TV show *Renovate or Rebuild*, which premiered on Channel 9Life and encourages Australians to adopt sustainable housing choices.

We are also at a turning point in how we effectively measure and influence the changes in viewer behaviour and, more broadly, societal values. Recently, we have seen the increasing formalisation of ‘Impact Production’ in the environmental media landscape. Impact Production is about designing content, such as films, TV shows, or social media posts, so that it enacts social and environmental change – it’s about transforming inspiration into action.

We have an opportunity to learn from environmental media-makers so that we can expediate the lessons and processes needed to improve impact and create real change.

In 2022–2023, CSIRO and Monash University researchers carried out a study to address how media-makers:

- a. understand and apply creative processes of environmental media making; and
- b. understand the notion of impact, and what impacts environmental impact can produce / has produced.

---

In doing so, we have identified how impactful environmental media is created, so that media-makers and changemakers can create content that has the best chance of addressing environmental challenges.

---



# How did we do the research?

We conducted semi-structured interviews with 28 media-makers (for instance, producers, directors and social media-makers) who are involved in making environmental content in Australia.

The interviews sought to understand how media-makers design and apply creative strategies to make environmental media impactful, and the approach to measuring and reporting these impacts.

A wide variety of professional experience in media industries were represented in our sample, across commercial, public and independent sectors, and including impact campaigns.

Some interviewees have worked for decades in different roles, including commissioning and promoting of films and TV as well as creative development. Others are relatively early in their media careers. A few interviewees' environmental media focus was exclusively or primarily on social media, such as podcasting, YouTube, and TikTok.

We would like to thank the participants for generously contributing their time and knowledge to this study. Without their shared experiences and expertise, the lessons learned from this study to enhance environmental impact would not be possible.



**Table 1. The diverse subject matter and genres covered by our interviewees.**

EXPERT SUBJECT MATTER	FORMAT/GENRE
<ul style="list-style-type: none"> <li>• Ecosystem restoration</li> <li>• Climate change</li> <li>• Endangered / threatened species</li> <li>• Habitat loss</li> <li>• Waste</li> <li>• Biodiversity / conservation</li> <li>• Energy / renewables</li> <li>• Natural history</li> <li>• Gardening / food security</li> <li>• Sustainability / sustainable living</li> <li>• Water conservation</li> <li>• Animal behaviour</li> <li>• Indigenous stories</li> <li>• Deforestation</li> <li>• Electric vehicles</li> <li>• Green jobs / careers</li> </ul>	<ul style="list-style-type: none"> <li>• Feature documentary film</li> <li>• Documentary TV series</li> <li>• Factual TV</li> <li>• Social media (Instagram, TikTok, Facebook, Twitter, YouTube)</li> <li>• Podcast</li> <li>• Reality TV</li> <li>• 'Blue chip' (high production-value) nature documentary</li> <li>• Strategic impact documentary</li> </ul>

NB – This list is not exhaustive.

# How did media-makers think about the impact of their work?

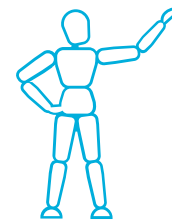
‘What an impact producer does is strategically design a campaign to leverage that awareness-raising and convert it into measurable outcomes.’ **INTERVIEW PARTICIPANT**

## Our research found:

- There was no uniform way of discussing and understanding impact.
- There was, however, a strong desire to achieve impact.
- There was discussion regarding the emergence of Impact Production and Impact Producers over the last approximately 10 years. This is a niche sector and job that is becoming more mainstream. While it was reported as always existing informally, it is now being formalised through training, funding and dedicated organisations focused on building capacity in this space.
- However, we also found a degree of informality and flexibility in the way that impact is viewed and attempted.
- Impact was sometimes seen as mostly audience reach (e.g., the number of people who watch a show or film) but those more formally trained in Impact Production saw impact more broadly (e.g., strategically designing content and campaigns that aim to not only reach targeted audiences but shift viewers’ values and behaviours over time and measure these changes).
- Impact was often spoken about in terms of metrics (including social media metrics), but the interviewees understood the limitations of using this to reflect true impact – views alone don’t necessarily equate to social / environmental change.
- We identified a theme in our sample: it wasn’t just purely formally trained media-makers who recognised the potential of media to affect change. Those coming from other backgrounds such as research, academia, government and industry engaged in media-making because they recognise the potential of media to create impact at scale by reaching large audiences.
- In terms of intended impact, there were three main aims or ideas: (i) awareness-raising and education (ii) behaviour change and (iii) activism and advocacy.



### Awareness-raising and education



### Behaviour change



### Activism and advocacy

- Awareness-raising and education are often mentioned as a key aim for social change campaigns. This is despite the literature demonstrating that a positive attitude shift or education alone on an issue does not translate to real impact.<sup>1</sup> Therefore, it was promising to notice that, instead, behaviour change was a strong theme throughout. This could reflect the rise of Impact Production, which attempts to influence and measure real world changes (i.e. human behaviour change). The noticeable shift away from purely awareness-raising could also reflect a societal shift: there is a general acceptance that many Australians are already aware of environmental issues like climate change.
- However, whilst tangible shifts in human behaviour were often an aim, so was a shift in the broader societal and cultural values that often shape human behaviour.

<sup>1</sup> Nilsson D, Fielding K, Dean AJ. Achieving conservation impact by shifting focus from human attitudes to behaviors. *Conserv Biol.* 2020 Feb;34(1):93-102. doi: 10.1111/cobi.13363. Epub 2019 Aug 12. PMID: 31152562.

# How is impact created?

---

'Impact doesn't just happen.' INTERVIEW PARTICIPANT

---

Our research found that, first and foremost, to create impact, content needs to be engaging. This confirms findings from the existing academic and practice-oriented literature.<sup>2,3</sup>

To create engaging and impactful content there was four key pillars that emerged:

## 1. Impact through communicating hope and solutions.

This includes communicating uplifting stories, as well as specific community, grassroots initiatives. It also includes practical ideas and advice that can be implemented in peoples' everyday lives: such as increased residential energy efficiency at home or sustainable gardening.

*'It's not about glossing over things, but it's focusing on what you can do rather than all doom and gloom.'*

INTERVIEW PARTICIPANT

*'You can't tell someone you're going to give them bad news for an hour and expect them to turn up and listen to it.'*

INTERVIEW PARTICIPANT



---

2 Nash K and Corner J (2016) Strategic impact documentary: Contexts of production and social intervention. European journal of communication (London) 31(3): 227-242.

3 Stogner MB, Macher C and Wackerly N (2020) Impact Media Report: Creative, Collaborative & Outreach Strategies For Nature, Environmental, Science Films Available at: [https://www.cefimpactmedia.org/wp-content/uploads/2023/04/CEFMediaReport2020\\_031621.pdf](https://www.cefimpactmedia.org/wp-content/uploads/2023/04/CEFMediaReport2020_031621.pdf)



## 2. Impact through subtext and respecting the audience.

This is about finding a way to appeal to different values and not communicating just to the so-called ‘converted’. It is about ensuring the audience doesn’t feel that they’re being judged or preached to. Value was identified in targeting mainstream audiences and embedding environmental messaging into popular as well as existing media.

*‘The thing that I think everyone’s mindful of in media when doing environmental communication well is, that it needs to be carefully crafted and it needs to not come across as someone being sort of preachy or dogmatic, because we know that people just turn off to that.’* INTERVIEW PARTICIPANT

*‘We also want to make sure that we’re as non-judgemental as possible, and that we really are there to inform and encourage, not to tell people they’re ever doing the wrong thing.’* INTERVIEW PARTICIPANT

*‘I don’t think it can be in the way of beating people over the head with a message. I think those days, that ship has sailed. Arguably, I think that the majority of people are aware, the majority of people do care. But nobody wants to be guilty into something while they’re watching stuff... my central philosophy’s always been sort of wolf in sheep’s clothing approach.... we’ve got to be smart about how we tell these stories so that the environmental messaging, it can often even be a subtext, you know?’* INTERVIEW PARTICIPANT

## 3. Impact through stories of humans (re)connecting with nature and evoking emotion

There was a desire to tell stories that made the audience understand and feel connected to the natural world: seeing humans as interconnected with nature, instead of something that is separate from us.

*‘If we talk about the life of trees or the life of forest in a way that dovetails with our own experience, then we see commonality as opposed to this is an alien species.’* INTERVIEW PARTICIPANT

*‘From a storytelling point of view, my philosophy is that our currency is emotion.’* INTERVIEW PARTICIPANT

*‘We recognise that there’s a real element to storytelling and emotional value, values-based messaging that is not necessarily facts-driven. And we know that if you just give people a bunch of facts that that doesn’t work, there is data on that.’* INTERVIEW PARTICIPANT

## 4. Impact through including and supporting a diversity of voices

This reflects the value in having a diversity of perspectives and experiences in the creative process: both behind the screen and in the actual stories being told. In particular, there was a desire to empower voices that have been marginalised, especially young and First Nations people.

*‘That’s a real key focus for us, to make sure that we have lots of different voices in the room and lots of different ideas.’*

INTERVIEW PARTICIPANT

Furthermore, our interviewees identified practical strategies to create impact. Three key pillars emerged: collaboration and partnerships, community-building, and creating shorter / social media content.

### • Collaboration and partnerships

High value was placed on collaboration and partnerships to leverage existing networks to reach broader audiences, promote secondary material and call-to-actions on web pages or social media. Interviewees also placed high value on using these established platforms as a way to monitor outcomes (e.g. to monitor number of companies who sign up for environmentally-certified products, signatures on a petition, or completed pro-environmental activities such as tree planting, etc.).

### • Building a community – shifting cultural and community values via social norms and social modelling

Creating a sense of belonging and community was identified as a strategy to encourage audiences to feel as if they are part of a ‘movement’ and therefore more inclined to act. This was fostered through attempts to show people that ‘things are already changing’ and normalising and demonstrating behaviours to shift cultural values and practices (e.g. adoption of the KeepCup – a reusable coffee cup to minimise waste or countering consumerism culture by showing those living minimally).

### • Include shorter content / social media content to broaden the audience

The media landscape is changing. The interviewees noted the appeal of shorter content and social media to reach different audiences – often in addition to traditional media formats (e.g., documentaries, TV shows) to act as an additional impact strategy.



# How is impact measured?



- Measuring impact was considered valuable but rarely undertaken through a systematic or comprehensive approach, except when an impact producer or researchers were involved.
- However, there was a strong desire to be able to demonstrate / know the impact of what the media-makers have created.
- There were differences in how impact was conceptualised, measured and attempted – to some degree, likely due to media-makers' different professional trajectories and different media formats, with different goals.
- The lack of comprehensive impact measurement was largely due to insufficient time or resources – particularly funding, training and expertise.
- The interviewees also recognised the challenges in measuring impact when it came to quantifying the effect on shaping cultural values, especially on attributing outcomes to a single TV show or documentary, for instance, when other influences (including other media) could have contributed to the observed impacts.





## Are there 'best practice' examples of impact measurement?

There are a number of concrete evaluations of environmental media that have sought to measure real-world impact. They were often related to the projects that have had substantial funding, allowing them to partner with researchers or impact producers.

*The War on Waste* is a high-profile example which conducted impact evaluation and found large-scale systemic change across many organisations, including Australia's leading supermarkets, to reduce waste<sup>4</sup> and encourage widespread individual and societal level behaviour changes such as the adoption of the KeepCup.<sup>5</sup>

The *Renovate or Rebuild* TV series underwent robust impact evaluation by CSIRO researchers and provides a useful framework to guide scientific evaluations.<sup>6</sup> The study was able to provide statistically significant results, including demonstrating an increase in the viewers' desire for a

home energy star rating above the minimum standard for Australia (something key to improving residential energy efficiency) compared to non-viewers.

This short summary of best practice examples is in no way a reflection of all the impact mentioned and achieved by the media-makers interviewed. Several of the interviewees reported that they have achieved significant outcomes, including, to name a few: thousands of submissions to the government protesting for environmental protection; cessation of logging in forests; businesses committing to 100% renewable energy; and millions of people joining environmental community events.

While not all media work was able to undergo rigorous evaluation and / or reporting of findings, this is not to undermine the achieved and / or potential impact of this work, but rather highlights opportunities moving forward.

4 Downes, J., Williams, L., Calder, T. & Dominish, E. (2019) The impact of the ABC's War on Waste. Prepared with the ABC by the Institute for Sustainable Futures, University of Technology Sydney. Accessed from <https://www.abc.net.au/tv/pdf/WoW%20Impact%20Report%202013June19.pdf>

5 Barnfield, R., & Marks, A. (2018). War on Waste: The Survey – Understanding Australia's Waste Attitudes and Behaviours (Vol. 2018): Australian Broadcasting Corporation <http://www.abc.net.au/ourfocus/waronwaste/WarOnWasteTheSurveyUnderstandingAustralia'sWasteAttitudesand%20Behaviours.pdf>

6 Nilsson, D., Romanach, L., Frederiks, E., Wang, C. (2022). 'Renovate or Rebuild' TV Series Research Evaluation: Final Report of key findings and outcomes. CRC.

# What's next?

## How do we improve our impact?

---

'It's not enough to think your film is going to communicate well about environmental and sustainable issues. You have to use empiricism, you have to use the scientific method and you use it before you start and get as much data and as much information as you can get to say, okay, what has everybody else learned about science communication around this issue and what works and what doesn't.' INTERVIEW PARTICIPANT

---

This study found that impact is important to media-makers.

And while there is largely a consensus on the creative approach to engagement, there is still work to be done to ensure that this engagement leads to social and environmental change.





This study provides a springboard for media-makers and changemakers to understand how impact is currently perceived, actioned and measured in environmental media in Australia – to learn from each other and identify avenues for improvement.

Projects that collaborated with researchers, academics or those more formally trained in Impact Production and adopted scientific principles in design and evaluation have been more likely to be able to demonstrate impact. But these examples are scarce.

Media-makers want to make and demonstrate impact, but they need more resources in impact design and evaluation.

Changemakers require urgent solutions to create impact at scale – digital media provides this scalability. And researchers have the scientific skill set to design, test and evaluate what works and what doesn't. This presents a unique opportunity to foster collaboration between those with a shared vision to create environmental impact.

The CSIRO and Monash University team are looking forward to continuing this research collaboration with media-makers and changemakers. Together, we aim to encourage best practice design and evaluation, and, ultimately, improve environmental impact through digital media.

---

**‘Any effective impact campaign will draw on the latest evidence-based research and papers.’** INTERVIEW PARTICIPANT

---

## Acknowledgements

We would like to acknowledge the contributions made by the media-makers who participated in this study. We thank them for generously providing their time and experience to assist us in learning how to improve the impact of environmental media. Finally, we would like to acknowledge and show appreciation for the impact that each of our interviewees and all environmental media-makers within Australia have made and continue to make.

### **CSIRO**

CSIRO is ‘Australia’s energy transition catalyst’ – supporting the nation as we move towards net zero emissions through building strategic partnerships and community engagement that enable impact. Innovation through science is at the core of our approach to solve the greatest challenges facing the nation. Our social scientists are leading the way in [applied research](#) to solve sustainability challenges through impactful communication and media innovation. Please keep in touch with Dr Danie Nilsson to become part of the strategic partnerships and the solution in addressing our nation’s energy efficiency, sustainability and environmental challenges.

### **Monash University**

For Monash, climate change is a key area for research, teaching and solutions-based practice. With the pervasive role of digital media in contemporary societies, Monash researchers at the [Environment and Media Research Program](#) are advancing the work that seeks to understand how media, in its diversity, is used and can contribute to addressing the complex challenge of climate change. Please keep in touch with Dr Aneta Podkalicka and Dr Simon Troon.

As Australia's national science agency, CSIRO is solving the greatest challenges through innovative science and technology.

CSIRO. Unlocking a better future for everyone.

**Contact us**  
1300 363 400  
[csiro.au/contact](https://csiro.au/contact)  
[csiro.au](https://csiro.au)

**For further information**  
**Energy, CSIRO**  
Dr. Danie Nilsson  
[danie.nilsson@csiro.au](mailto:danie.nilsson@csiro.au)

**School of Media, Film and Journalism,**  
**Monash University**  
Dr. Aneta Podkalicka  
[aneta.podkalicka@monash.edu](mailto:aneta.podkalicka@monash.edu)  
Dr. Simon Troon  
[Simon.Troon@monash.edu](mailto:Simon.Troon@monash.edu)