

# JOURNALISM IN THE AGE OF PANDEMICS

Newsroom Guide

Newsgathering	Page 7
Storytelling	Page 16
Innovation	Page 28
Preparing For The Future	Page 34
Takeaways	Page 40

Science in the Newsroom is a programme to help upskill newsrooms and boost journalism focused on addressing the major science related challenges of our time.

It was initiated in 2018 by the World Editors Forum, the global network for editors within the World Association of News Publishers (WAN-IFRA) in response to the need for improved engagement around issues of health, science and climate change, both within newsrooms and within the communities they serve.

In 2020, with the support of Temasek Foundation, a Singapore philanthropic organisation, the programme focused on Journalism in the Age of Pandemics.

Over two years the initiative has included editor roundtables, innovation workshops, journalist and editor trainings and a global summit. This guide brings together all the learnings from the programme that should be considered for any newsroom covering health whether it is beat journalism or a pandemic.

The voices highlighted in the guide are experts in their fields of reporting, storytelling or science.



“Our newsrooms have been challenged like never before in 2020 with a complex, fast moving story of a global crisis demanding all our focus and journalistic skill. COVID-19 struck at a time when science reporting skills, and indeed general newsroom capacity, have been eroded in many newsrooms by resource constraints. The economic fallout risks further weakening newsrooms, but the pandemic has shown the need for, and value of good journalism, not least by authoritative science correspondents. This handbook, made possible by generous support from the Temasek Foundation, is a contribution from the World Editors Forum to helping newsrooms develop and enhance

key skills. We hope it is of value and we encourage you to share it widely.

In the face of bewildering developments such as the pandemic, made worse by the viral spread of fake news, our communities will increasingly look to us for help in making sense of their world.”

**Warren Fernandez**

Editor In Chief, Straits Times  
President, World Editors Forum



*“We have faced an overwhelming amount of information on COVID-19. The size and intensity of this ‘infodemic’ has led to confusion: people don’t know who to believe, what kind of information is right, what is trustworthy - and so don’t know how to behave.”*

**Dr Sylvie Briand**

Science in the Newsroom  
Summit Speaker

Director of Epidemic and  
Pandemic Diseases  
World Health Organization



*“Future pandemics will emerge more often, spread more rapidly, do more damage to the world economy and kill more people than COVID-19 unless there is a transformative change in the global approach to dealing with infectious diseases.”*

**Prof. Carlos Gonalo das Neves**

Science in the Newsroom Summit  
Speaker

President Wildlife Disease  
Association



In 2019 and 2020 WAN-IFRA brought science reporters together at workshops in London, Singapore and Glasgow with the intention of identifying challenges common to all. They collectively articulated both the key best practices newsrooms needed to adopt and listed the 12 things editors needed to hear about science journalism and science stories. The insights from these specialist reporters helped shape further elements of this programme and helped drive the training agenda used to upskill journalists in the time of pandemics.

Practices Newsrooms Need to Adopt

Stop being protective of all data	Find the science	Infographics
Create more time for reporting	Make it sexy	Explain through scenarios
Find characters in the story and make it heartwarming	Add science reporting to morning meeting	Make stories relevant to audience
Ask how it changes me?	No more stock images	Consider the formats

12 Things Editors Need to Hear

Trust science reporters	Science is good for dry days	Science needs watchdogs
Make a feature out of science	Be brave on science formats too	Science can attract ad money
Training will change the way we cover	Think about the kids	Science can be fun
Statistics hold power to account	A press release is not a story	Science can grow your audience

# NEWSGATHERING

## SCIENCE IN THE NEWSROOM

*“Don’t be intimidated by seemingly impenetrable blocks of text and strings of unfamiliar acronyms — scientific research papers usually follow the same, highly-structured format. The key to understanding is to know where in the paper to look for the information you need.”*

**Andrew Mills**

Science in the Newsroom Trainer

Jumpline Co-Founder and  
Journalism Educator



SCIENCE  
JOURNALISM  
SHOULDN'T BE  
INTIMIDATING

Reading scientific papers, reports and findings is an essential skill in the reporting of pandemics. Andrew Mills, a journalism educator and Science in the Newsroom Trainer, suggests following three key principles:

1

Scan the abstract – identify the broader implications of the research, understand what was done to whom, start a list of unfamiliar terms and acronyms.

2

Dissect the introduction section – it usually explains the scientific context surrounding the research, includes citations from other scientists who might serve as secondary sources and the last paragraph usually answers the question: what does this research achieve?

3

Fast-forward to the end of the discussion section – this is where scientists state why the research is significant.

During health crises traditional journalistic rigour applied in the right way can enable writers, editors and reporters to analyse sources with the scrutiny that will allow them to become an expert in the science of a story for that moment. Science in the Newsroom Trainer, Fergus Bell, shares his top tips for interacting with the science...and the scientists:

## **READ EVERYTHING**

This means the whole paper and not just the press release. Universities, journals, corporations will always use spin and an abstract might not give you the whole picture.

## **IDENTIFY THE LIMITATIONS**

Remember that there will always be a limitation to research or the researchers. Could the author have been influenced by known or unknown biases? You need to judge if there is anything that could change the way you tell the story.

## **DON'T AVOID MATHS**

If you need to use figures or crunch some numbers, do it. It will allow you to ask the right questions and help you to keep cutting through the jargon.

## **ASK STUPID QUESTIONS**

Don't worry that an expert source will judge you for what seems like a silly or uninformed question. If you have the question, your audience likely will too. It is your job to cut through jargon.

## **KEEP IT REAL**

You will likely need to report on a preliminary study of cures and treatments but don't report them out of context. Did people drop out of a study? Why? How many were left at the end of the study? Were there any long-term side-effects?

## **USE LANGUAGE CAREFULLY**

When you are cutting through jargon don't revert to over-simplified language that might actually change the portrayal of the science. Be careful how you use anecdotes or comparisons.

If you need to fact-check or verify health-related claims or content, then it is essential you apply what are now the well-established verification processes to information coming from any platform or source. Consider these five important steps:

1. Identify the claim or hoax and investigate the source
2. Confirm that it is fact checkable
3. Isolate the precise detail you will check
4. Consider the barriers and any bias
5. Find and confirm the facts you need to confirm or correct the record

*“What is important is for journalists to be able to produce content that is fact-checked and shareable.”*

**Kritika Goel**

Science in the Newsroom Summit Speaker

Associate Editor, Fact-Check  
The Quint.com



*“We can’t stop disinformation. As journalists, it’s crucial that we learn to recognise it; to prioritise so that we can maximise our valuable resources; to decisively confirm or debunk; and to present our results in a way that captures and convinces our often sceptical audience.”*

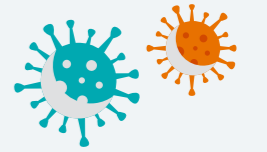
**Eoghan Sweeney**

Science in the Newsroom Trainer

Founder, OSINT Essentials



REMAIN  
VIGILANT FOR  
DISINFORMATION



# How to check science and health claims: Identification of the claim and investigation of the source

## Establish authenticity through ascertaining:

- Location
- Knowledge & expertise
- Affiliations & potential agenda

## Ask questions:

- Make contact for clarification

## Verify content through:

- Geolocation
- Ownership

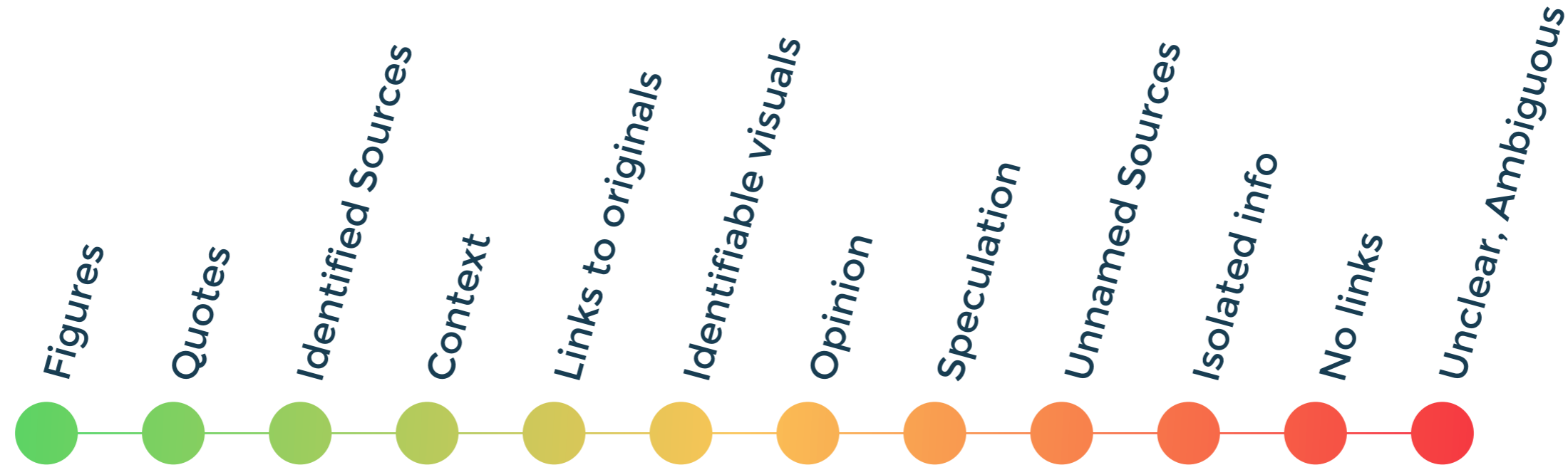
## Examine motivations/potential agenda via:

- Evaluating activity for leanings & biases
- Establishing networks & affiliations
- Checking for coordinated/  
duplicated activity

Credit: Eoghan Sweeney

## How to check science and health claims: Confirming if something is fact checkable

How checkable is a piece of content? Look for things that can be found in recognised research or other records. Focus less on opinions, generalisation or speculation.



Credit: Eoghan Sweeney

# How to check science and health claims: Consider the barriers and any bias

We can all be affected by bias without realising it. When it comes to fact-checking and verification these are the three types of bias that all journalists need to be mindful of both in sources and themselves:

## **CONFIRMATION BIAS**

The tendency to process information by looking for, or interpreting, information that is consistent with one's existing beliefs or mindset.

## **MOTIVATED REASONING**

When an individual unconsciously aligns their processing of information to conclusions that suit some end or goal.

## **AVAILABILITY HEURISTIC**

The use of information that comes to mind quickly and easily when making decisions.

# STORYTELLING

## SCIENCE IN THE NEWSROOM

*“Journalism should help us all understand the world, locate us in our environment and enable us to meaningfully interact with it.*

*It should help us form views which are consistent with the needs and interests of ourselves and our communities.”*

**Shirish Kulkarni**

Science in the Newsroom Summit Speaker  
Journalist, Research and Community Organiser



*JOURNALISM  
IS NOT FOR  
JOURNALISTS*

# The seven building blocks of storytelling

## CONTENT

The information we provide has to be what citizens (not journalists) need and want

## CONTEXT

Citizens want context and analysis, not just breaking or “moving” news

## AGENCY

Citizens have power and agency and we need to provide ways for them to exercise that

## TONE

We need to write in a way that’s clear, accessible and not defined by habits of the past

## DIVERSITY

We need to not just listen to different perspectives, but HEAR and reflect them

## TRANSPARENCY

We need to be clear about how and why we’re reporting and acknowledge gaps

## NARRATIVE

We’re hardwired for stories, they’re virtual reality simulators for life, prepare us for difficulties and teach us how to navigate the world

Credit: Shirish Kulkarni

## Top tips for writing complicated science stories that everyone can understand:

1

Start with a strong focus statement that distills the essence of the story – this is as important for the writer (who seeks focus) as it is for the reader (who seeks meaning).

2

Use short words and simpler sentences to explain the most complex concepts.

3

Familiar concepts and metaphors can go a long way to make strange or unusual aspects of science clear to everyone.

Credit: Andrew Mills

Journalism in the Age of Pandemics

*“When societies have to respond to unprecedented crises, (like this pandemic and its overwhelming impact), people need to be able to make informed decisions and take responsible actions. Working with the right data and being able to read, process and act upon that, is crucial. For journalists, this means being able to use data as a source for a story and using data as a way to tell a story. This way, data journalism empowers societies by reinforcing informed decisioning.”*

**Laurens Vreekamp**

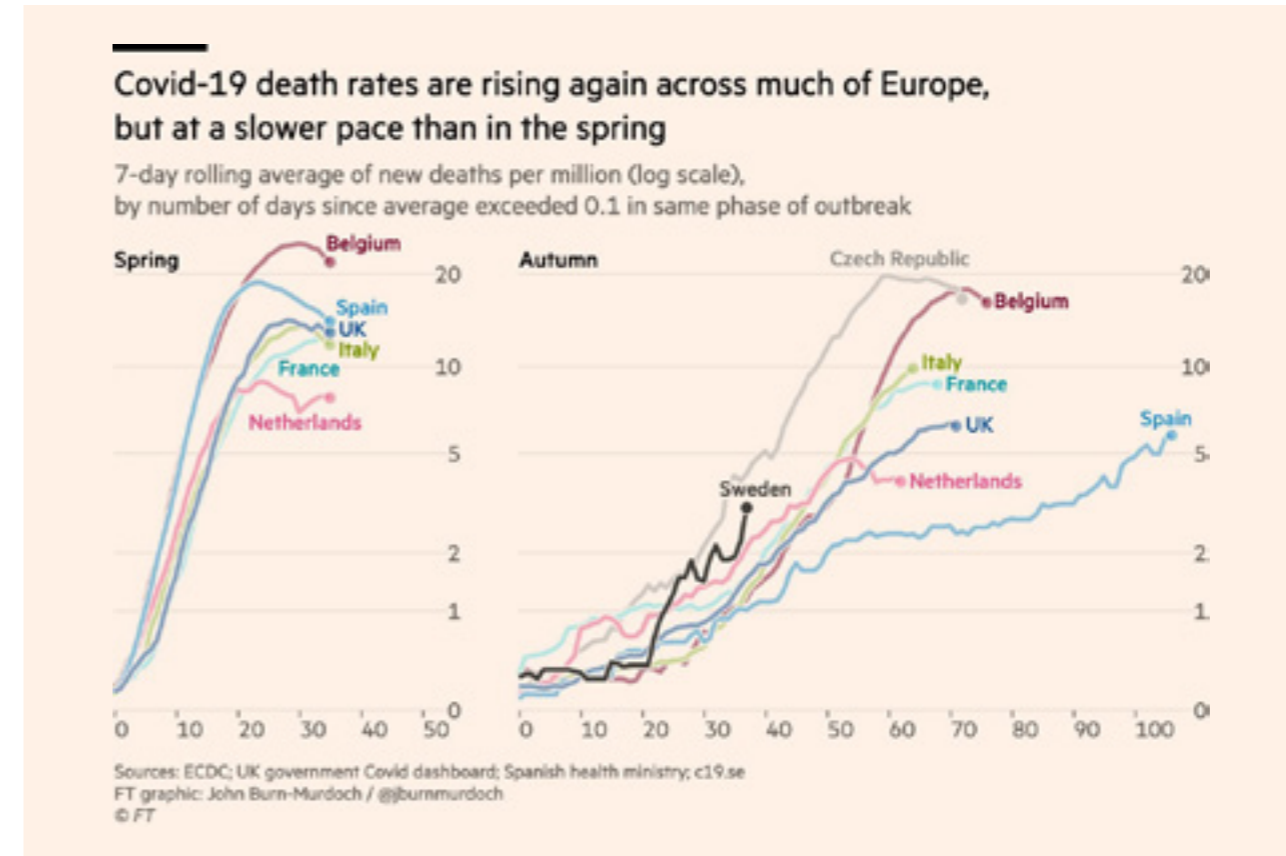
Science in the Newsroom Trainer  
Journalism Trainer & Design Thinker



*DATA CAN BE  
BOTH A SOURCE  
AND A TOOL FOR  
STORYTELLING*

During the Science in the Newsroom Summit, the Financial Times' senior data visualisation journalist, John Burn-Murdoch, shared five tips for how to optimise pandemic storytelling graphics for clarity, memorability and reach:

- 1 Add context to charts through text and annotation
- 2 Respond to user feedback (even if you disagree with it)
- 3 Remember you are at the service of your reader and think about how different people would like to interact with a graphic



- 4 To avoid misperceptions about positioning or viewpoints include caveats in-situ to minimise risk of adverse reactions
- 5 Find the best data to answer the real questions, don't just take the most readily available

## Statistics are important in holding power to account but be cautious

*“Be skeptical and ask questions. It is important not to be beguiled by the fact that these are numbers. Numbers can be made up just in the same way as words can. They can mislead and they may be misreported deliberately or through ignorance.”*

**Prof. Denise Lievesley**

Science in the Newsroom Summit Speaker

Statistician



*“Too often statistics are trusted simply because they imply scientific precision without an appropriate investigation of their validity.”*

When people think something can be done about a problem, they are more receptive.

*“Behavioural science tells us that without examples of effective responses, anxiety-inducing reports create defensiveness, instead of changing behaviours. Helplessness leads to a desire to tune out.”*

**Holly Wise**

Science in the Newsroom Trainer

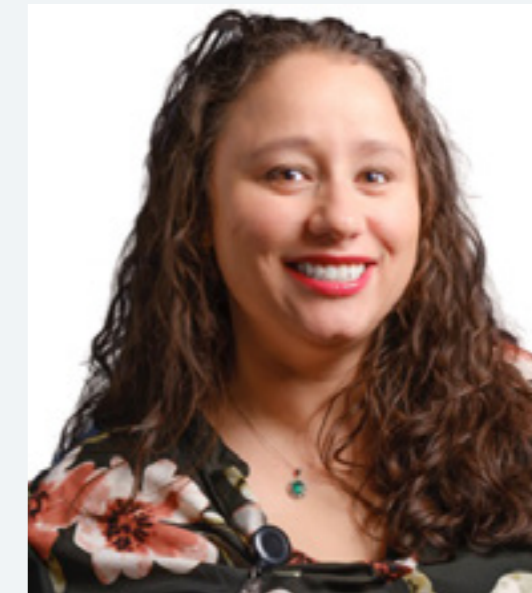
Texas Regional Manager  
Solutions Journalism Network



**Michelle Faust-Raghaven**

Science in the Newsroom Trainer

West Coast Region Manager  
Solutions Journalism Network



Solutions Journalism is rigorous, evidence-based reporting on responses to social problems. Stressful events like health crises lend themselves to solutions oriented storytelling.

## IT'S SOLUTIONS JOURNALISM IF IT...

1

*Features not just a person, but a **response** to a problem and **how** it happened*

2

*Provides **evidence** of results, looking at **effectiveness** — not just intentions*

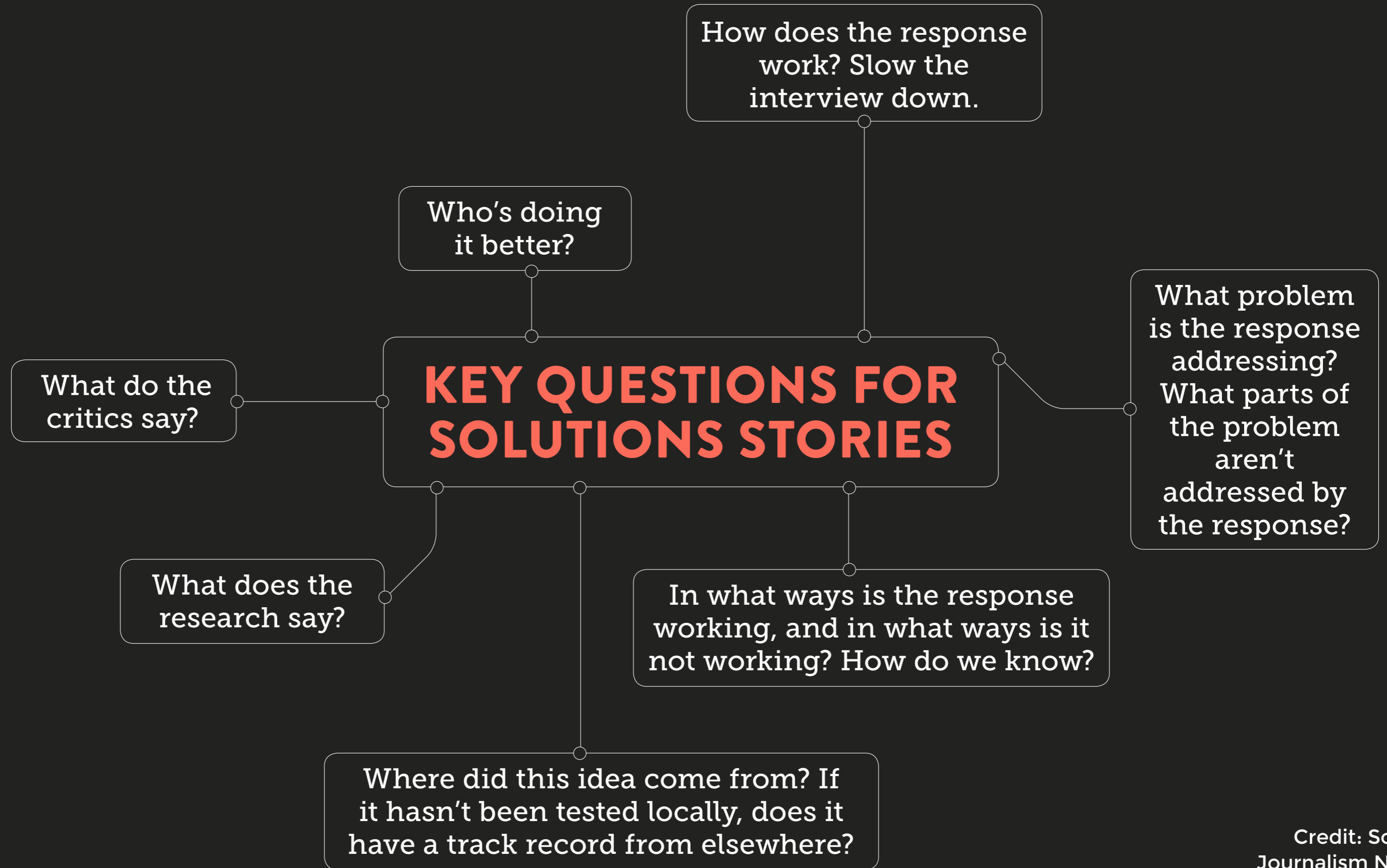
3

*Discusses **limitations** and avoids hype like a **puff piece***

4

*Seeks to provide **insights** others can learn from — not just inspiration*

Credit: Solutions  
Journalism Network



Credit: Solutions  
Journalism Network

# BUILDING A SOLUTIONS STORY

**1** Identify the **issue or question** of concern, as precisely as possible

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**2** Ask **what's missing** from the public conversation

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**3** Start hunting for **candidates** for solution stories by asking **who's doing it better?**

*What else could the evidence be saying?*

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*What other factors could be causing the results?*

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*For a study: Was it peer reviewed? How many people participated? How was the sample chosen? Was there a comparison group?*

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*Who paid for the research?*

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*Are there independent voices that attest to the response's value?*

## DON'T GET OVERWHELMED BY NUMBERS AND OFFICIAL COMMUNICATION

*“Human stories are there and they are the best way to tell the story of the pandemic because those are the stories that are most impactful and that people remember.*

*The payoff for finding these stories is massive in many ways; it allows you to build relationships with your audience in a time that many many of them are suffering.*

*The benefit of these relationships goes both ways people feel that they are seen and heard by something bigger than them and in return for that you build brand loyalty.”*

**Alet Law**

Science in the Newsroom Summit Speaker

Newsletter & Engagement Editor

News24



# INNOVATION

## SCIENCE IN THE NEWSROOM

One of the clear journalistic successes from pandemic coverage in 2020 has been the explosion of journalistic collaborations to match scientific expertise with solid journalism and innovative storytelling.

*“Journalists and scientists - or even the the broader academic world - actually have a lot of similarities. They both follow a neutral line of inquiry and it has been a joy to see that a very unearned reputation from the academic side - a sort of a ponderous slow failure to turn things around - is not the case at all. The scientists are at the cutting edge and they’re the ones informing us with something that is new.”*

**David Walmsley**

Science in the Newsroom Summit Speaker

Editor, Globe and Mail



# Zero Canada Project

The Globe and Mail created a dedicated online resource, bringing together in-depth reporting and analysis as well as helpful and actionable insights designed to help Canadians deal with the pandemic and reduce its spread. In partnering with The Royal Society of Canada, it gained access to the knowledge and expertise of the Society's members as well as its COVID-19 task force, while increasing the reach of the Society's perspectives.



*“Rather than just leaning on our health policy team, our education team, our science team, we recognised that we needed the skills coming from those who were learning in real time inside the science world. Journalism is about having the wherewithal to recognise what you don’t know. Expertise is a good thing in journalism and then when you have that expertise, or you have access to that expertise to amplify the message, there’s another benefit. It’s also about instructing groups such as academia about journalism, about the wonders of journalism; an industry that’s constantly under assault or accused of fakery or being disproportionate.”*

**David Walmsley**

Science in the Newsroom Summit Speaker

Editor, Globe and Mail

In 2020 more than 100 fact checkers around the world united to form the **#CoronaVirusFacts / #DatosCoronaVirus Alliance**, an initiative lead by the International Fact-Checking Network (IFCN) at the Poynter Institute. The Alliance publishes their COVID-19 fact checks to a database that is searchable and accessible to anyone.



*"Collaboration is important because this content that we're talking about, misinformation and disinformation, it's not just two or three people sharing it, it's really widely being shared. It's being shared on a wide scale so I think it's important for journalists and fact checkers and this community to come together and work together."*

**Kritika Goel**

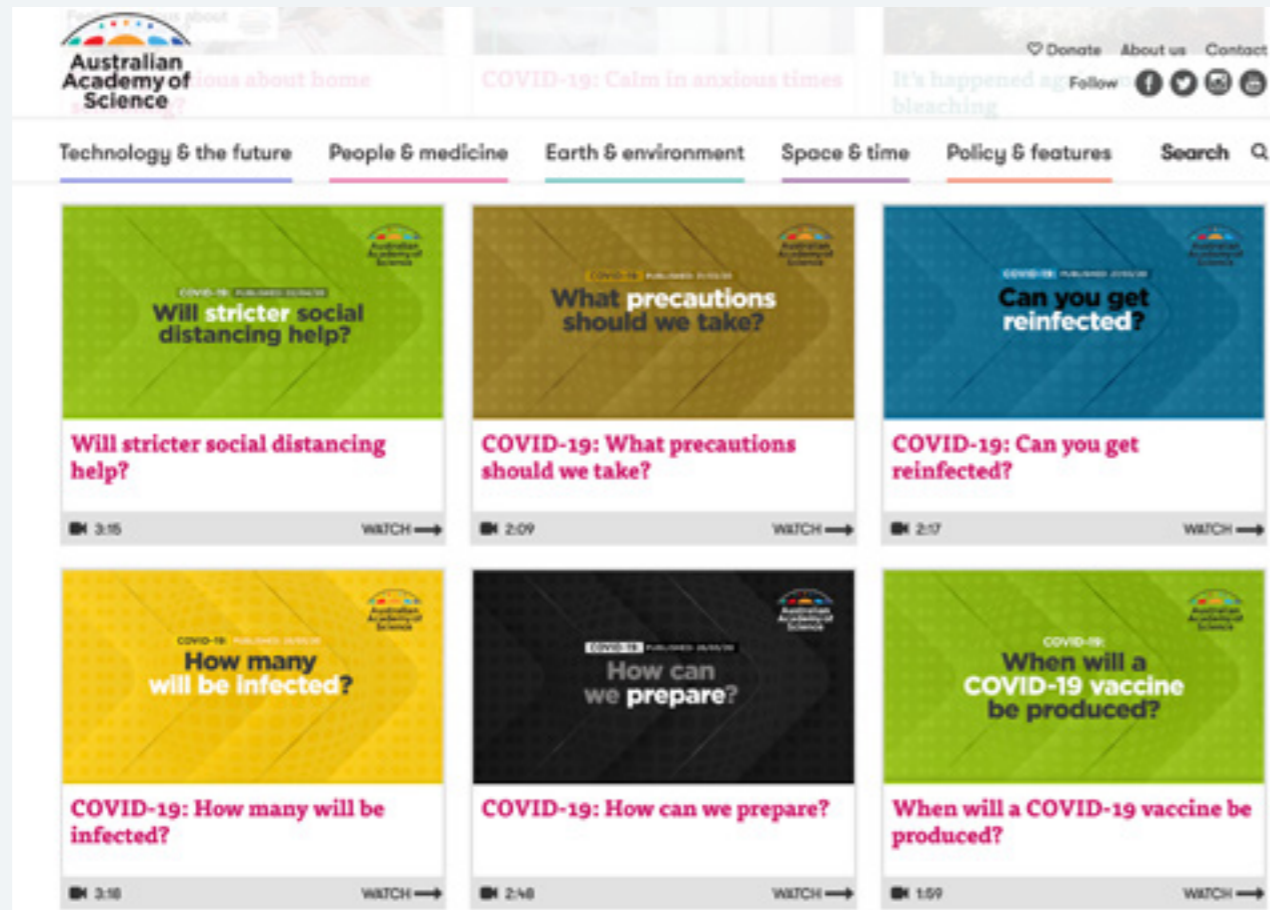
Science in the Newsroom Summit Speaker

Associate Editor, Fact-Check  
The Quint.com



# Australian Academy of Science

The Australian Academy of Science is collaborating with scientists and media to produce free, multimedia explainers and rigorously fact-checked content. All videos are reviewed by the scientists that appear in them, as well as an independent expert in the field who is not related to the research. Content can be used by media under fair use policy.



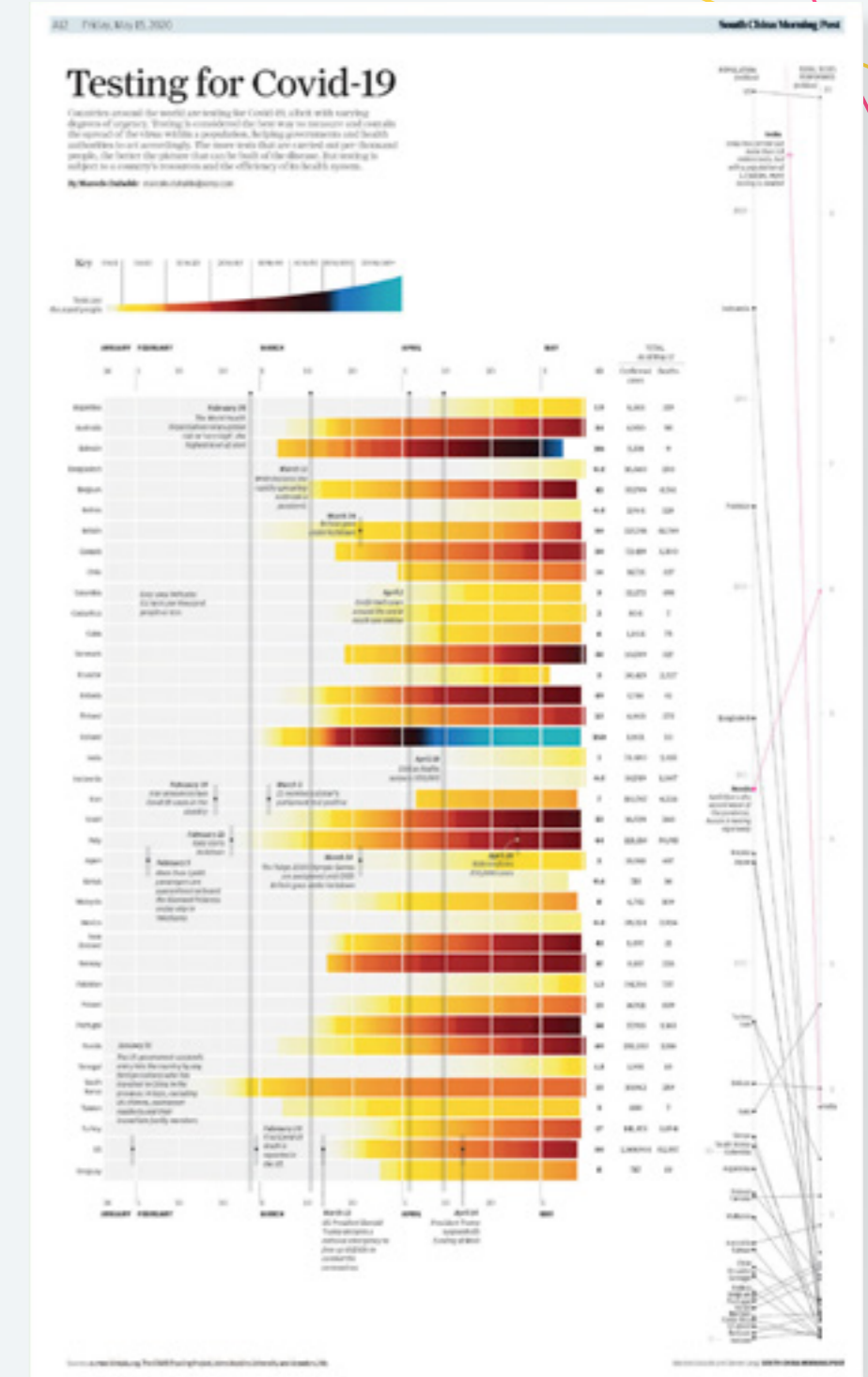
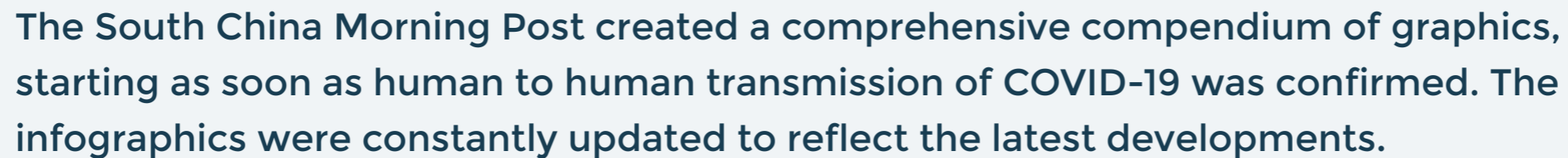
*"Sometimes when information is presented as science it can put audiences off. When we put accurate science from a trustworthy source along with engagement techniques, we were able to create really good content that sometimes did not even feel like science. Our audience grew quite quickly."*

**Anna-Maria Arabia**

Science in the Newsroom  
Summit Speaker

Chief Executive, Australian  
Academy of Science





# PREPARING FOR THE FUTURE

SCIENCE IN THE NEWSROOM

*“What structural changes should we be making to prepare us for future unprecedented events?”*

*For us that means integrating emerging technology throughout some of our tools and focusing on self-service and sort of individualised user experiences.”*

**Alyssa Zeizler**

Science in the Newsroom Summit Speaker

Research and Development Chief and  
Product Lead for Newsroom Tools  
Wall Street Journal



*THE INDUSTRY  
NEEDS TO BE MORE  
PREPARED FOR THE  
NEXT CRISIS*

*“Newsprint and digital products have been successfully created, edited and published from bedrooms, sofas and kitchen tables. Trends and developments that might have previously taken five years to incubate have been co-opted in just a few months. The pandemic represents a once-in-a-generation opportunity to hit the reset button. New tools, workflows and processes have come into play for journalists. This is genuinely exciting. COVID-19 may well get journalism to shed a lot of old skin and proceed remade in the future.”*

**John Crowley**

Science in the Newsroom Trainer

Editor and Consultant



*THIS IS AN  
OPPORTUNITY  
FOR CHANGE*

Consultant, Editor and Science in the Newsroom Trainer, John Crowley, and Journalist and Statistician, Doctor Andrew Garthwaite, conducted significant research in the summer of 2020 that highlighted the growing mental health problems affecting newsrooms:



Failing business models, the ubiquity of smartphones, social-media attacks on journalists, job layoffs, macho news editors, vicarious trauma and the need to be 'seen' across the news mean journalists are exposed to stressful conditions in a multitude of ways. The pandemic has taken these issues to a new level.



Artwork: Doctor Andrew Garthwaite



Artwork: Doctor  
Andrew Garthwaite

There is a sliding linguistic scale when it comes to stress, even during a pandemic. Terms such as ‘depression’ and ‘burnout’ are considered loaded and make it hard to start honest conversations around what is still a taboo subject in journalistic culture.

## Will there be a greater focus on science, health, climate change in 2021?

In a survey by the World Editors Forum\* that asked editors about their outlook for 2021



**62%**

say they will broaden the scope of their health journalism

**46%**

say they will broaden the scope of science reporting

**48%**

say they will broaden the scope of climate change coverage

\*Editors Outlook survey Dec 2020

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Don't be intimidated by the science. Understand where you need to look for the information you need and what questions to ask the experts.

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Consider how bias might affect your own reporting, the science you are analysing and what your audiences are being exposed to.

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Find the best data to answer the real questions, don't just take the most readily available.

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Prepare for the next crisis now.

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Scientific research and studies always have limitations. Learn to identify them in order to give your audience as much context as possible.

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Remember the seven building blocks essential for science storytelling; content, context, agency, tone, diversity, transparency and narrative.

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When people think something can be done about a problem, they are more receptive.

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Apply the well-established industry standards developed for fact checking and verification to the science stories you are writing.

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When writing a complex story, focus on distilling the story and breaking down the jargon. If you don't understand something your audience won't either.

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Consider ways that you can blend the expertise of scientists and journalists to better serve your audience.

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For more information, visit  
[www.temasekfoundation.org.sg](http://www.temasekfoundation.org.sg).

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## Contributors

Fergus Bell, Dr Sylvie Briand, John Burn Murdoch, John Crowley, Michelle Faust-Raghaven, Warren Fernandez, Kritika Goel, Prof. Denise Lievesley, Prof. Carlos Gonalo das Neves, Shirish Kulkarni, Alet Law, Eoghan Sweeney, Dr. Roberta Villa, Laurens Vreekamp, David Walmsley, Holly Wise, Alyssa Zeizler

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## Commissioning Editor

Cherilyn Ireton

## Editors

Fergus Bell & Ally Lee-Dudley

## Design

Wild Ilk

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## WAN-IFRA 2020