

Collective Engagement



M J Schwartz

UNIZULU Science Centre, South Africa



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Science communication is ab

“...human experience.”

- Prof Mike Bruton

- Engage
- Empower
- Entertain
- Educate
- Evangelise





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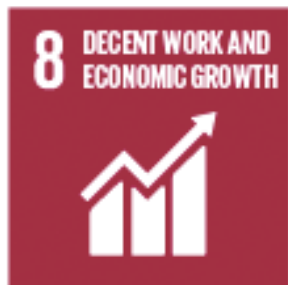
Science communication is about people

“...human experience.”

- Prof Mike Bruton

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"Innovation is taking two things that already exist and putting them together in a new way."

- Tom Freston

"Big thoughts are fun to romanticize, but it's many small insights coming together that bring big ideas into the world."

- *The Myths of Innovation* by Scott Berkun

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



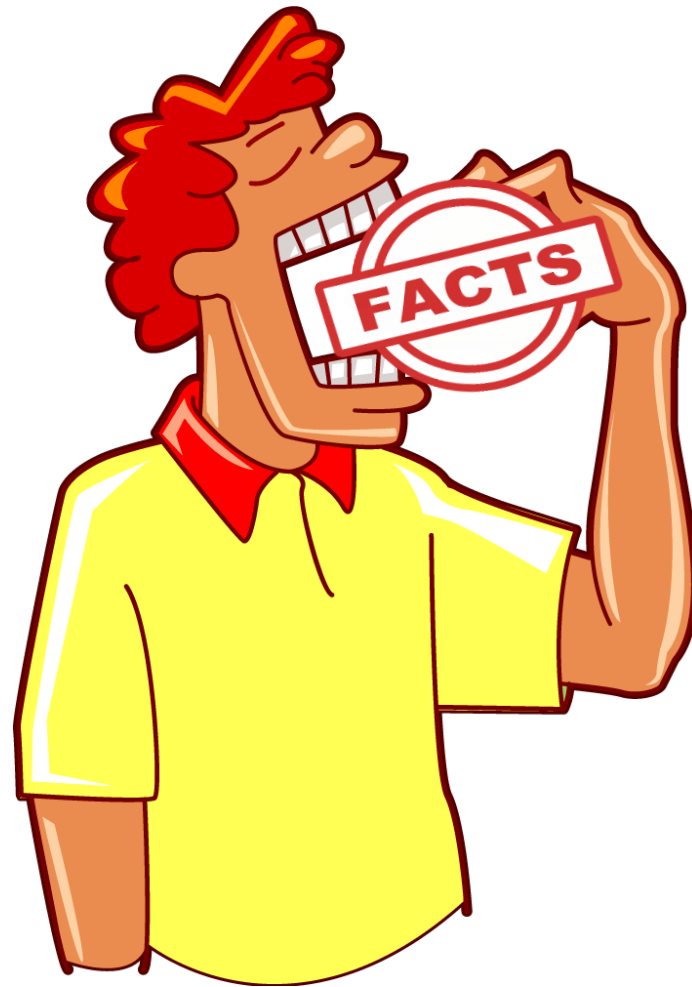
16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS



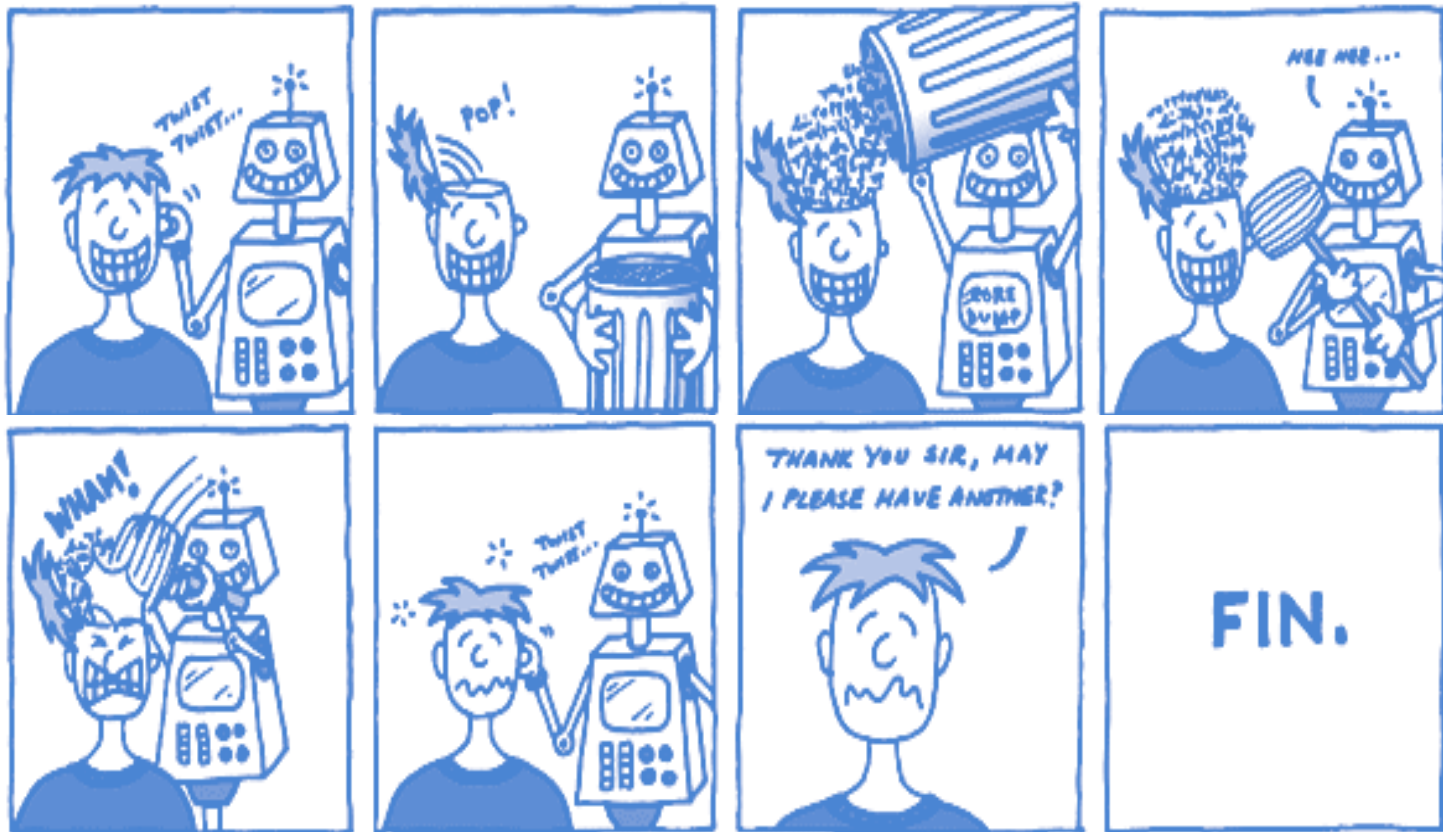
SUSTAINABLE DEVELOPMENT GOALS



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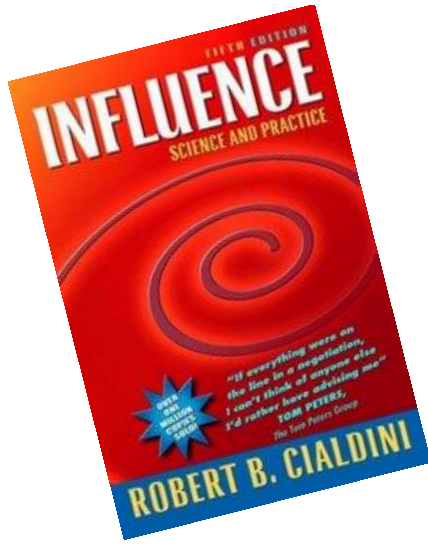


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Open to engagement?

6 Key principles of influence

- ✘ Reciprocity (return the favour)
- ✘ Commitment and consistency (self-image)
- ✘ Social proof (Group think/Conformity)
- ✓ Authority (Autopilot)
- ✘ Liking (persuaded by other people that they like)
- ✓ Scarcity (Perceived scarcity will generate demand)



Is This How You Feel?



IS THIS HOW YOU FEEL?

[HOME](#)[THIS IS HOW SCIENTISTS FEEL](#)[HOW DO YOU FEEL?](#)[FOR TEACHERS](#)[BLOG](#)[NOW WHAT?](#)

Climate change is a complex and intimidating threat. You can't see it when you look out your bedroom window. Its impacts are often not immediately noticeable, nor are the benefits of acting against it.

Luckily there are a large group of passionate individuals who have dedicated their lives to studying climate change. These people write complex research papers, unpacking every aspect of climate change, analysing it thoroughly and clinically. They understand the numbers, the facts and the figures. They know what is causing it, what the impacts will be and how we can minimise these impacts.

But they're not robots. These scientists are mothers, fathers, grandparents, daughters. They are real people. And they're concerned.

[SEE HOW SCIENTISTS FEEL](#)

1. Handwrite your feelings on climate change
2. Take a photo of it on your phone
3. Tweet your photo to @ITHYF_Letters



Like 1.6k



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IS THIS HOW YOU FEEL?

HOME THIS IS HOW SCIENTISTS FEEL? HOW DO YOU FEEL? FOR TEACHERS BLOG NOW WHAT?



The Scientists

What follows are the words of real scientists. Researchers that understand climate change.

<p>Emeritus Professor Neville Nicholls</p>	<p>Dr Anna Harper</p>	<p>Prof Stefan Rahmstorf</p>	<p>Dr Jessica Cattell</p>	<p>Dr Carlo Buontempo</p>
<p>Dr Agus Santoso</p>	<p>Prof Donald J Wuebbles</p>	<p>Prof Mark Maslin</p>	<p>Dr Ruth Mottram</p>	<p>Dr Pieter Tans</p>
<p>Dr John Fasullo</p>	<p>Prof Richard Somerville</p>	<p>Prof Peter deMenocal</p>	<p>Dr Jim Salinger</p>	<p>Dr Helen McGregor</p>
<p>Prof Peter Cox</p>	<p>Prof James Byrne</p>	<p>Prof Gabi Hegerl</p>	<p>Dr Kevin Trenberth</p>	<p>Prof Michael Mann</p>
<p>Prof Pramod Aggarwal</p>	<p>Prof Mat Collins</p>	<p>Prof Michael Raupach</p>	<p>Prof Corey Bradshaw</p>	<p>Dr Jennie Mallea</p>

Copenhagen, January 2015

Dear Joe,

You have asked me how I feel about climate change. **It's probably the first time I have ever been asked to say what I feel, rather than what I think** and it's a hard question to answer.....

So, what do I feel about climate change? Interest, intellectual curiosity, satisfaction, excitement, extreme worry, sadness, fear and perhaps a glimmer of hope..."

Dr Ruth Mottram
Danish Meteorological Institute

Prof Lesley Hughes

Dr Alex Sen Gupta

Prof Brendan Mackey

Emeritus Professor
Neville Nicholls

Dr Anna Harper

Prof Stefan
Rahmstorf

Dr Jessica Carilli

Dr Carlo
Buontempo

Dear Joe,

I feel overwhelmed by the debate surrounding Climate Change.

“I feel overwhelmed by the debate surrounding Climate Change. The science behind climate change itself is intriguing. The debate is too, getting fiercer by the day, but also getting quite tiresome, because the motivation behind it is not purely science driven. Climate change is a multi-dimensional issue.”

Agus Santoso

**Senior Research Associate
University of New South Wales**

Best wishes,

Agus Santoso

Senior researcher, UNSW



減少碳排放

多步行

少開車

Reduce carbon
emission

Drive less

Walk more

Sung Yu



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香港的夏季

愈來愈長

Summers in Hong Kong
are getting longer
and longer

劉雅章

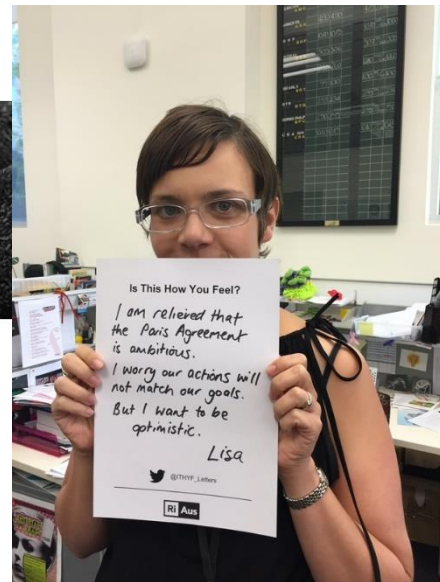
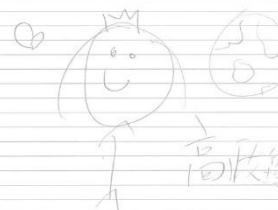
20 September 2015
How do I feel about climate change? There are many questions and thoughts being professionally engaged with this issue and personal thought for the past decade. There's feelings that seem not immediate, palpable, or there of deep concern, sadness, at times real angst, expectation of the seeming inability of governments to appreciate and address what is at stake here, and the sense that this is a con-verse cost-benefit cover in myriad ways, with profound implications for life on earth as we know it.
We tend to avoid, distance, not see the devices, when the risk, like the environment, encompasses, permeates our existence. There is no question but that the world's existence, which warms and warms, in a great part, been saying this seems to overtake and engulf the rest, but we know that in this instance this is not the case, and an unprecedented scientific body of research and consensus tells us this, so does our own experience of the natural world.
I should add that I continue to have some dashed optimism in all of this, reflecting some faith in our finite ability to reform most of the excesses of humankind, and the remarkable resilience of many individuals and groups across the world to do what they can, which seems to come with their own acceptance, commitment, and coming to terms with what now lies ahead.
Joseph Rivers

HOW YOU FEEL?
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我會愛地球!

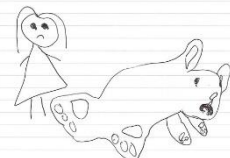
I will love the earth!



I feel so FRUSTRATED!

I don't understand why we've been so slow to act. Essentially, climate scientists are asking us to switch to sustainable energy. whether or not climate change is real (IT IS) - sustainability IS ALWAYS a sensible idea. LET'S just do this!

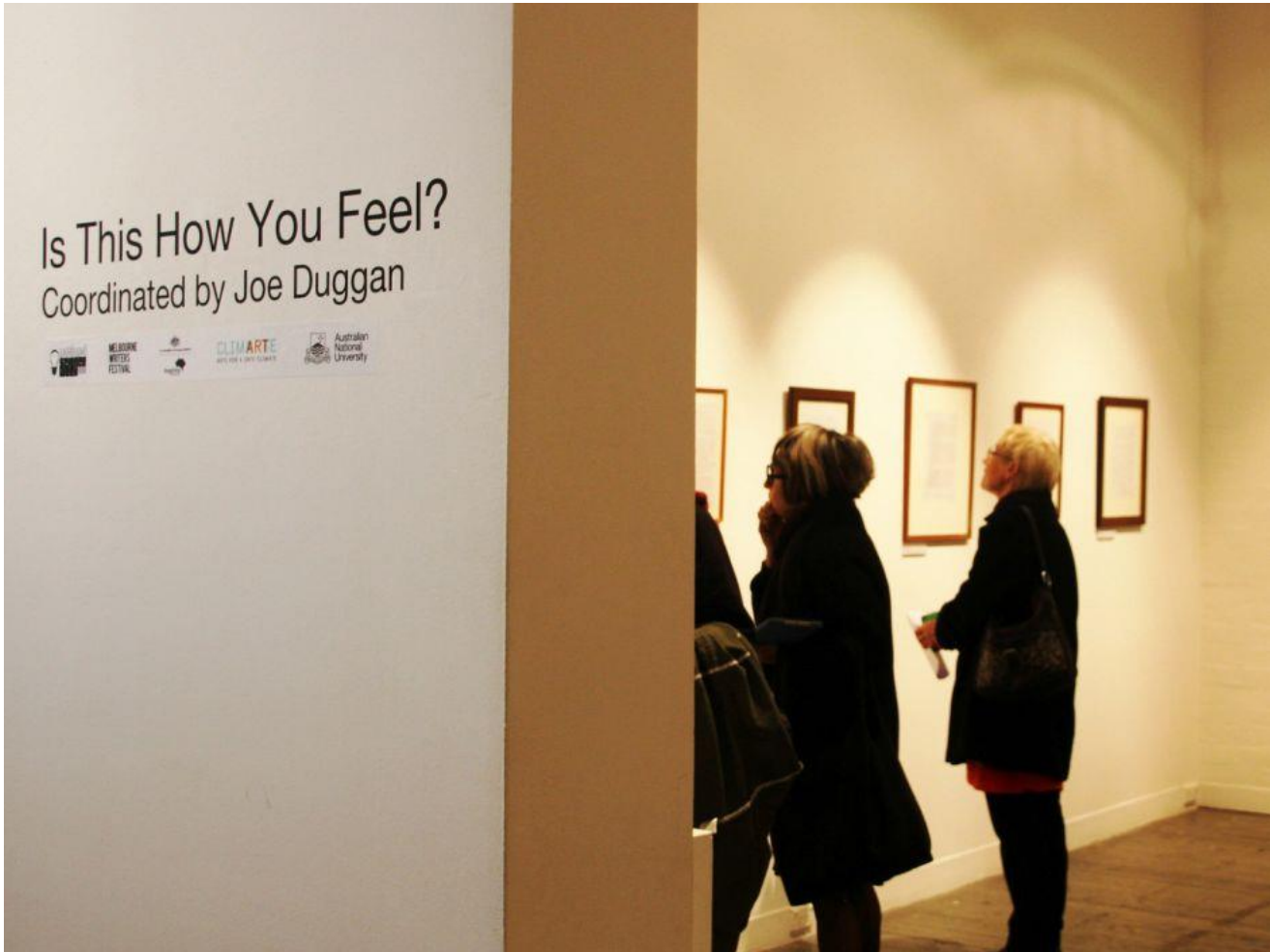
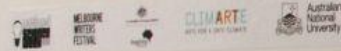
Eddie, NSW



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Is This How You Feel?

Coordinated by Joe Duggan



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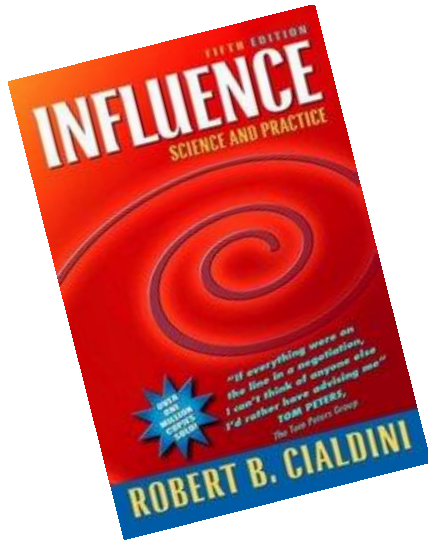


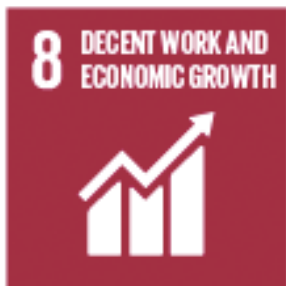
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Boys –
Scientist



girls –
female scientist



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Carol S. Dweck, Professor of Psychology at Stanford

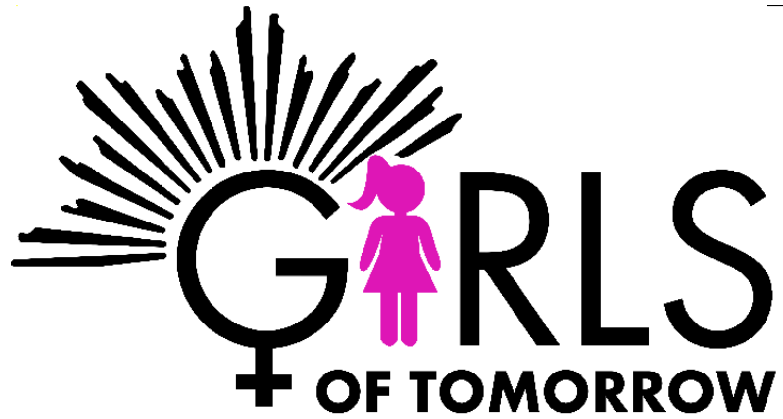


Girls – higher the IQ, more likely to give up

Reshma Saujani

Teach girls bravery, not perfection





**Chris Harris,
Girls of Tomorrow Founder**

Female empowerment program targeting girls & boys



