

WORKSHOP: ENERGY AND METEOROLOGY EDUCATION



Juan A. Añel

Assoc. Prof. Earth Physics, EPhysLab,
Universidade de Vigo

President Atmosphere & Ocean
Physics, Spanish Royal Physics
Society

Geosc. Model Dev. Executive Editor,
PLoS Climate Editor

Previously: Scientific Coordinator
CPDN- Univ. of Oxford and Co-Director
NATURGY Chair, Univ. de Vigo



Matthew Wright

PhD Student, University of Oxford

Doctoral Intern, AFRY Management
Consulting

Energy Science Engagement Fellow,
Royal Meteorological Society (UK)



What is your background and interest in the workshop?

What energy-meteorology
education resources are out there
at the moment?

List of resources: online resources

- **NextGen Challenges in Energy-Climate Modelling Workshops**
- **ClimateREADi programme**
- **Energy-meteorology education resources, from Hannah Bloomfield (University of Bristol)**
- **Recent WMO report**
- **TEAL Tool**

List of resources: Master's courses

- **University of Birmingham, MSc Applied Meteorology and Climatology**
- **University of East Anglia, MSc Climate Change**
- **King's College London, MSc Climate Change: Environment, Science and Policy**
- **University of Leeds, MRes Climate and Atmospheric Sciences**
- **Liverpool John Moores University, MSc Climate Change and Sustainability**
- **University of Reading, MSc Applied Meteorology and Climate**
- **Universidade de Vigo, MSc in Sustainable Development**
- **Univ. Santiago de Compostela, MSc in Renewables, Climate Change and Sustainability**

List of resources: MOOCs

- **Wind resources for renewable energies**
- **Come rain or shine: Understanding the weather**
- **Global Energy and Climate Policy**
- **Climate Change for Decision Makers**
- **Global Energy and Climate Policy**
- **Climate and Energy: An Interdisciplinary Perspective**

Have we missed anything?

There is clear gap in energy/meteorology education...

An RMetS survey of people working at the energy, weather and climate intersection found that:

- 57% want to improve their coding/technical skills
- 54% want help accessing/downloading data
- 43% want to understand what variables to use
- 31% want to better understand weather/climate terms

Breakout groups to discuss gaps in energy-met education

What is the biggest gap in energy-meteorology education?

Do you think education works better online or in-person?

Is formal education (e.g. degrees) or informal education (e.g. seminars, MOOCs) more important?

What expertise is missing from your organisation that should be addressed in education?

What types and levels of education are important when hiring people?

Is the price of courses a major barrier?

Feedback from breakout groups

Tips on how to present to the general public

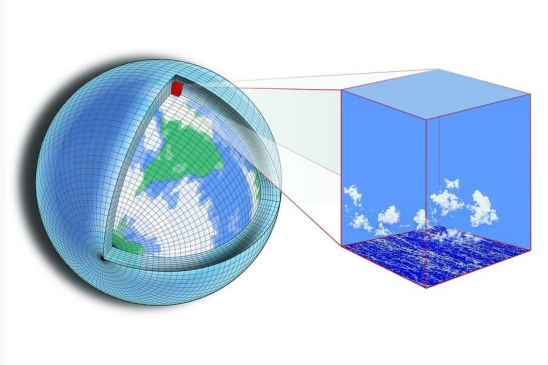
- Use clear, simple language
- Connect with media and journalist proactively
- Be careful, try to involve your press office if your organisation has one
- Use images and basic ideas
- Use social media
- Appeal to their emotions/interests
- Use visuals

Use clear, simple language

- Don't say: model



- Instead say: computer simulation



Use clear, simple language

- Don't say: solar radiation, radiative, irradiance
- Instead say: energy



Use clear, simple language

- Don't say: shear



- Instead say: changes in wind speed



Use clear, simple language

- AGU Science Communicators: on avoiding jargon

<https://www.agu.org/Share-and-Advocate/Share/News-media/Jargon>

- UCL Handbook for communicating climate change

https://www.ucl.ac.uk/climate-change/sites/climate_change/files/ucl_climate-change_handbook-for-comms.pdf

Connect with media and journalists proactively

- Build relationships
- Prepare accessible summaries/press-releases of your work
- Begin with local media
- Offer to check articles before published (they do not have to do it)
- Do not feel bad if a news piece is not accurate

Use images and basic ideas

- 'Feel stupid'
- However, do not talk journalist as if they were stupid

Use social media

- You can reach many more people this way
- Choose the right platform for the audience you want to reach (Mastodon, Twitter, LinkedIn, YouTube...)
- It is the beginning of the chain:

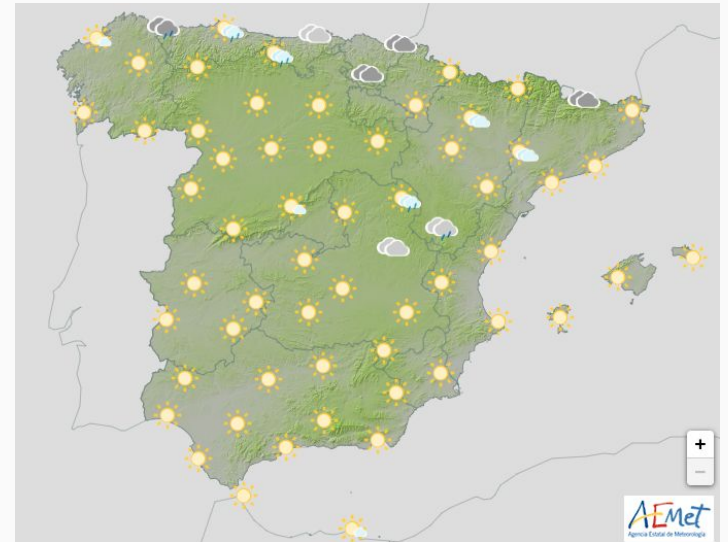
press release/web page → social media → newspapers → TV

Appeal to their emotions/interests

- Show why it matters to them
- Know your selling points
- Be timely, react to the news

Use visuals

- E.g. Apps, online content



Climate Change Communication Training at the Royal Meteorological Society

- Despite growing awareness amongst the public, misinformation about climate change is still widely reported.
- Grounding communications in science is one of the best ways to tackle misinformation, while ensuring that content is credible and engaging.
- RMetS offers 'Climate Change Communications Training' to companies, journalists and broadcasters.

What does the course teach?

- Climate change – the facts and evidence
- What does the future hold?
- Communicating climate change

What have we learned?

- Participants respond best to interactive learning
 - discussion and exercises help them learn by sharing experiences
 - encourages an active role in learning
- Tailor the course to each group
 - Find out people's interests and why they are there, and adapt the course to meet those needs
- Collect feedback as much as possible
 - Taking feedback after each session enables the next one to be better

What next?

- Continuing to deliver these courses to journalists throughout the UK
- Adapting the courses to be relevant to more companies and groups
- Aiming to offer this to energy companies

Breakout groups: communicating to the general public

Who are your audience?

Why do you want to communicate with them?

What key points do you want to communicate?

Feedback from breakout groups

Thanks for coming!

j.anel@uvigo.gal

matthew.wright@env-res.ox.ac.uk

energy@rmets.org