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of Glasgow

## Public Engagement, Outreach and Communication

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University of Glasgow

**WORLD  
CHANGING  
GLASGOW**

**A WORLD  
TOP 100  
UNIVERSITY**



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# Who am I and why do I care?





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# Why is public engagement important in research?



Go to [www.menti.com](https://www.menti.com) and use the code 8162 5706



## Who are we communicating to?

- Can you think of groups of people we might be interested in communicating to?



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# Who are we communicating to?

## The general public – who are they?

- People who show up to a public lecture about Statistics (Curious citizen, well-educated and curious, lots of sensible questions, maybe no technical knowledge).
- People who generally consume information via social media (Ordinary citizen, no special type of knowledge, may take information at face value, pre-conceived idea about maths/stats).
- School children (very age-dependent, varying levels of knowledge, curious, may not have negative perceptions of maths (yet!). Their teachers may have pre-conceived idea about maths/stats).



## Our choice of language matters!



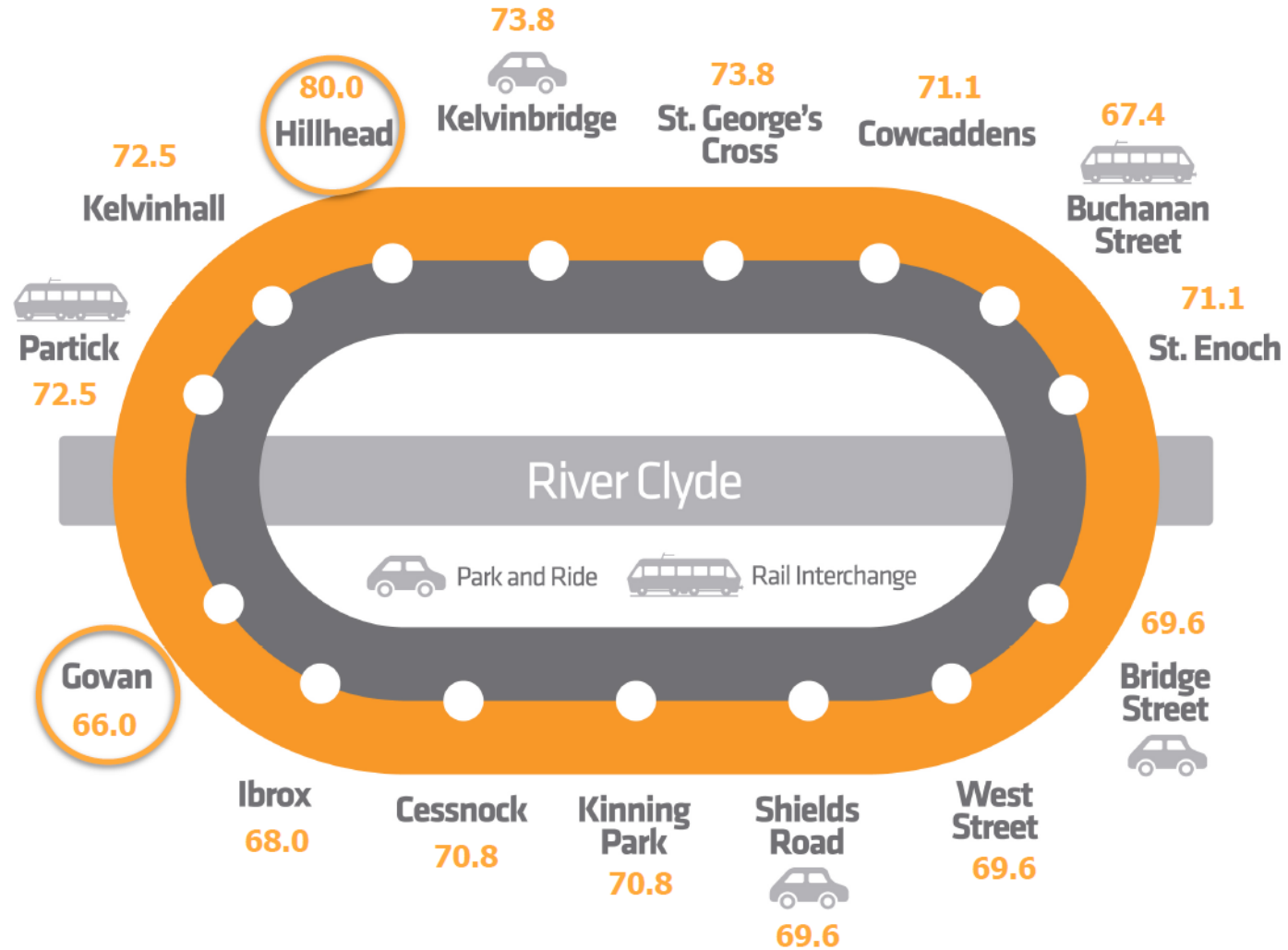
- If your doctor diagnosed you as suffering from a ***synchronous diaphragmatic flutter*** then you'd probably be quite worried.
- If they described it as being the ***hiccups***, you'd probably be less concerned.



## The way we present information also matters!

Subway stop	Average male life expectancy
Buchanan Street	67.4
St. Enoch	71.1
Bridge Street	69.6
West Street	69.6
Shields Road	69.6
Kinning Park	70.8
Cessnock	70.8
Ibrox	68.0
Govan	66.0
Partick	72.5
Kelvinhall	72.5
Hillhead	80.0
Kelvinbridge	73.8
St. George's Cross	73.8
Cowcaddens	71.1

# The way we present information also matters!



Map of Glasgow subway with male life expectancies for each stop.  
Source: SPT Subway Maps & Stations page.





# Principles of communication

- Set out the message before you start
- Understand and support your audience
- It's a dialogue, not a monologue
- Simple is (usually) better than complex (less is more)
- Findings before methodology (some people don't need to know how you did it to understand why it's important. That's fine.)
- Familiarity is helpful
- Accessibility really matters

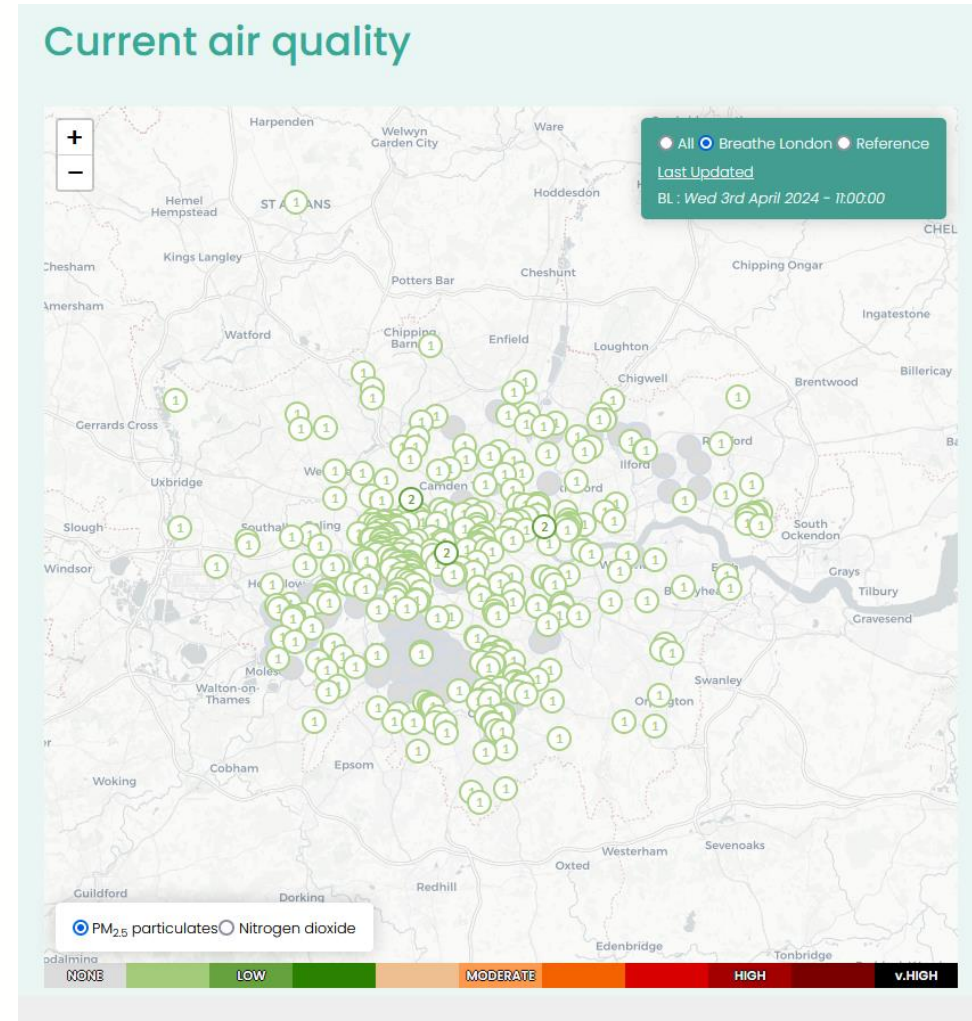


# Engaging a public audience

- **Be topical**, listen to what people are asking/assuming
  - Why is what you are doing important to society?
- **Make it human**, we care about people
  - Personalise it
  - How this affects them
  - Quotes to ground numbers in personal experiences
- **Invite curiosity**, people want to immerse themselves
  - Explanatory visual walk-throughs
  - Easy to use tools
  - Games

# Different ways to do Public Engagement

- Communicate your research
- Communicate your research methods and research processes
- Involve the community in your research (e.g. citizen science)



Breathe London: the community sensing network  
Source: <https://www.breathelondon.org/>



## What do you get in return

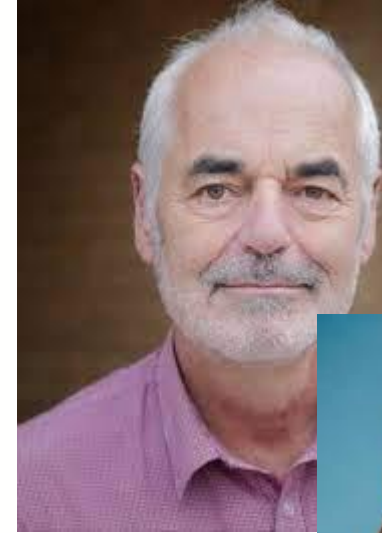
- Communication skills
- Organisational skills
- Increased passion and enthusiasm
- Fun





## Get Inspired

- The pudding - <https://pudding.cool/>
- Professor Sir David Spiegelhalter - <https://www.youtube.com/watch?v=Jax-tBgbF-E>
- Professor Hannah Fry - <https://www.youtube.com/watch?v=vloaYBxNIhw>
- Professor Hans Rosling - <https://www.youtube.com/watch?v=hVimVzgtD6w>
- Rob Eastaway: <https://robeastaway.com/>
- Mat Parker: <https://www.youtube.com/user/standupmaths>





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- Vihart: <https://www.youtube.com/user/Vihart/videos>
- nRich: <https://nrich.maths.org/>
- Youcubed: <https://www.youcubed.org/>
- UoE Outreach Webpage: <https://www.maths.ed.ac.uk/school-of-mathematics/outreach>
- Data Education for Schools: <https://dataschools.education>
- Data Skills Gateway: <https://ddi.ac.uk/what-we-do/people/>
- IoT: <https://www.ed.ac.uk/information-services/iot/learn-iot>



## Get Involved

- Glasgow/Edinburgh/Other Science Festival
  - <https://www.gla.ac.uk/events/sciencefestival/>
  - <https://www.edinburghscience.co.uk/>
- Maths Week Scotland -  
<https://www.mathsweek.scot/>
- STEM Ambassadors -  
<https://www.stem.org.uk/stem-ambassadors>