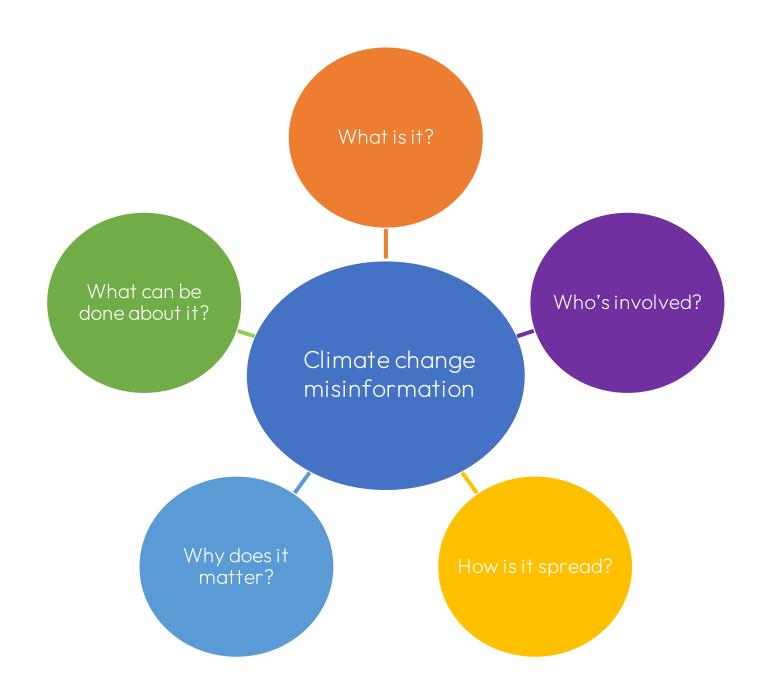


How climate change misinformation spreads online

Kathie Treen PhD candidate – University of Exeter 27th January 2023





1. What is climate change misinformation?

What is misinformation?



Misleading information Created and spread

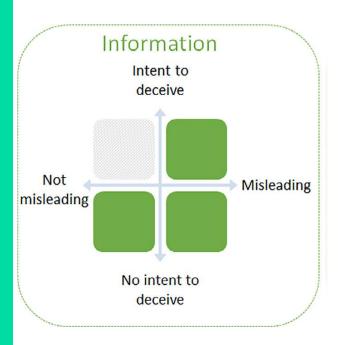
With or without intention to deceive

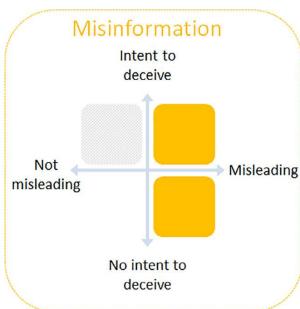
Disinformation: intention to deceive \checkmark

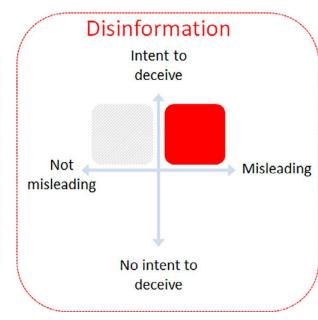


Information hierarchy



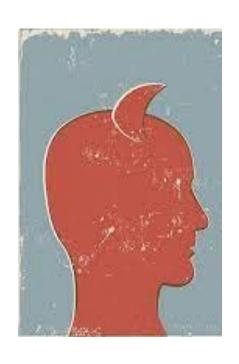




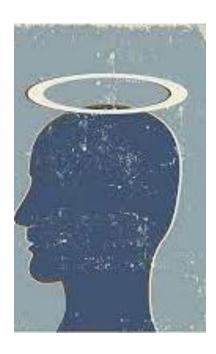


Online and social media



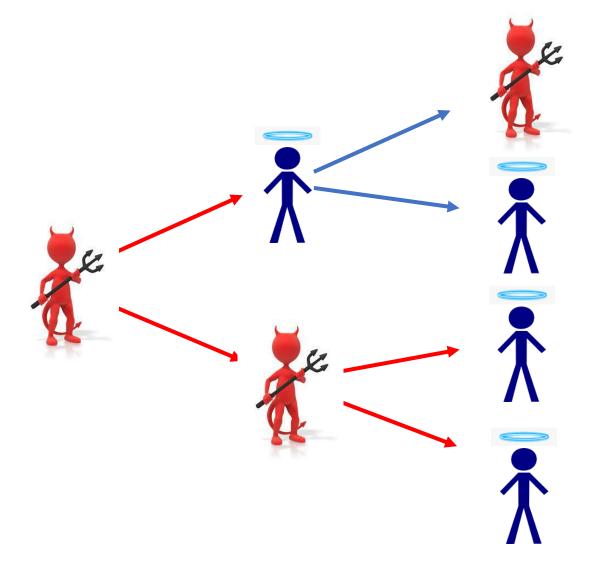






Online misinformation





What about climate misinformation?

Discredit climate science



Confuse the political debate

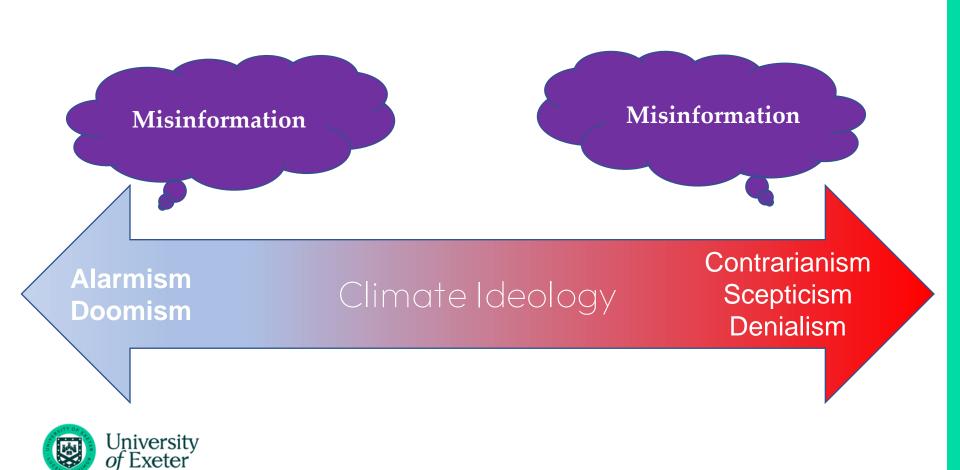
Cast doubt

Alternative interpretations





What about climate misinformation?

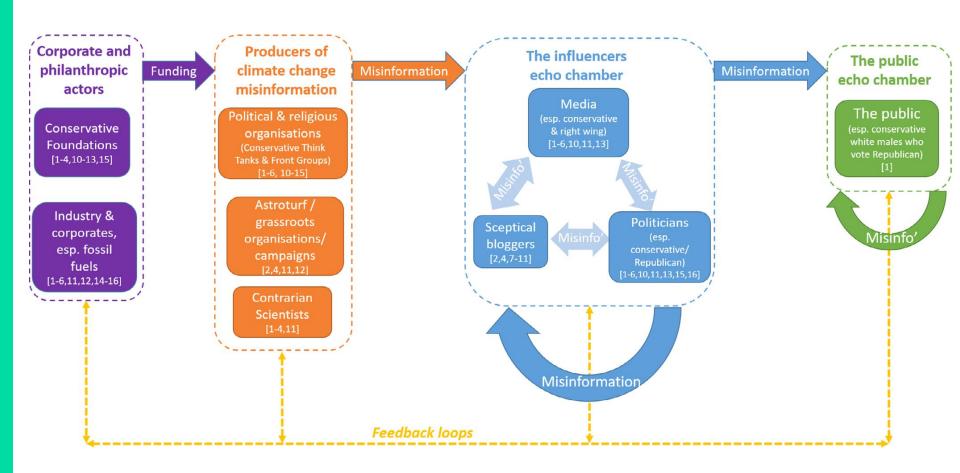




2. Who is involved?

Who is involved?







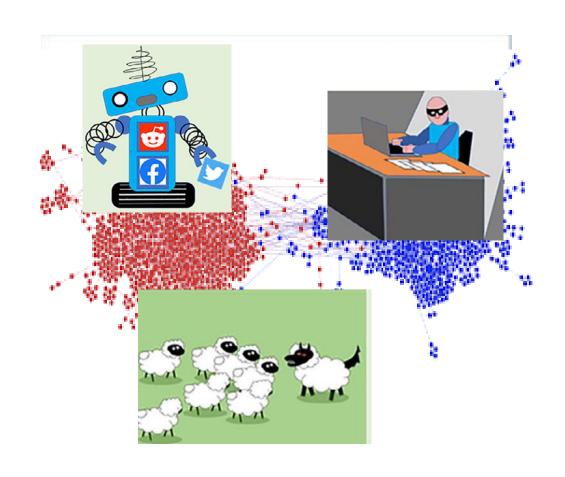
3. How does it spread online?

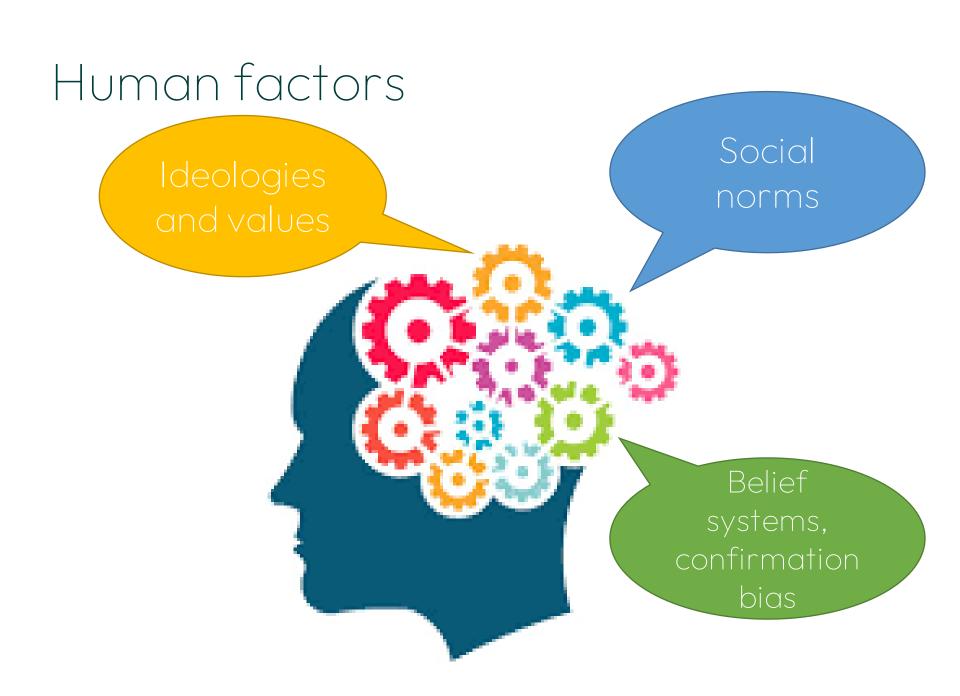
Social media platform factors

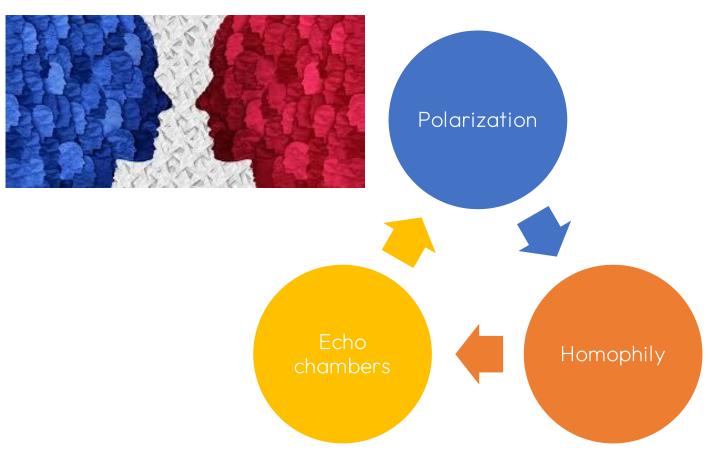
Algorithmic bias

Platform construct

Malicious accounts





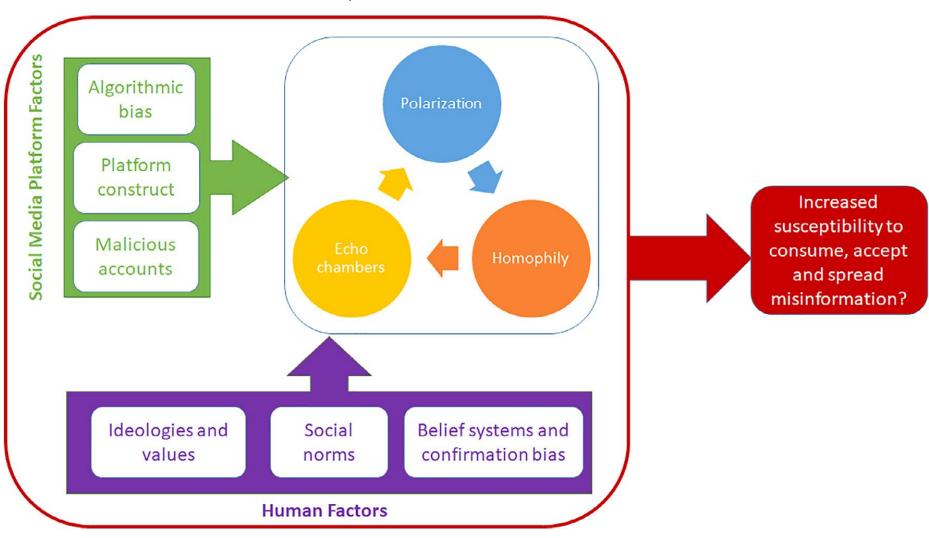






How does it spread online?







4. Why does it matter?

Climate misinformation





Emotional responses













Societal impacts







5. What can be done about it?

What can be done about it? University of Exeter



Misinformation Timeline

Pre-misinformation

Education

Critical Thinking Techniques (e.g. flowcharts, PARCS Technique, games) [1:5]

climate change [5:7]

Agnotology as a teaching tool [8:10]

Better education about

Potential for misuse of agnotology [11-12]

Requires an appropriate level of climate literacy in educators [13]

Inoculation

Pre-emptively provide correct information [14]

Explicitly warn people they may be misinformed [15:16]

Difficult to inoculate against every issue

Difficult to identify target audience

Technological Solutions

Early Detection of Malicious Accounts [17]

Ranking and selection algorithms [18:19]

Unclear what can and should be done once malicious accounts detected [20]

Algorithms may not be accurate or effective [17; 21:22]

Censorship concerns [23:26]

Response

Corrective approach [27:30]

Post-misinformation

Collaborative approach [27]

Regulation

Fines [35]

Imprisonment [35]

Risk of backfire effect [15; 31:32]

Risk of continued influence effect [15;33]

Risk of 'Belief Echoes'

Source of corrections important for credibility [29]

Can be a blunt and risky instrument [26]

Democratic right to freedom of speech [36:37]

Overtones of 'Big Brother' [24]