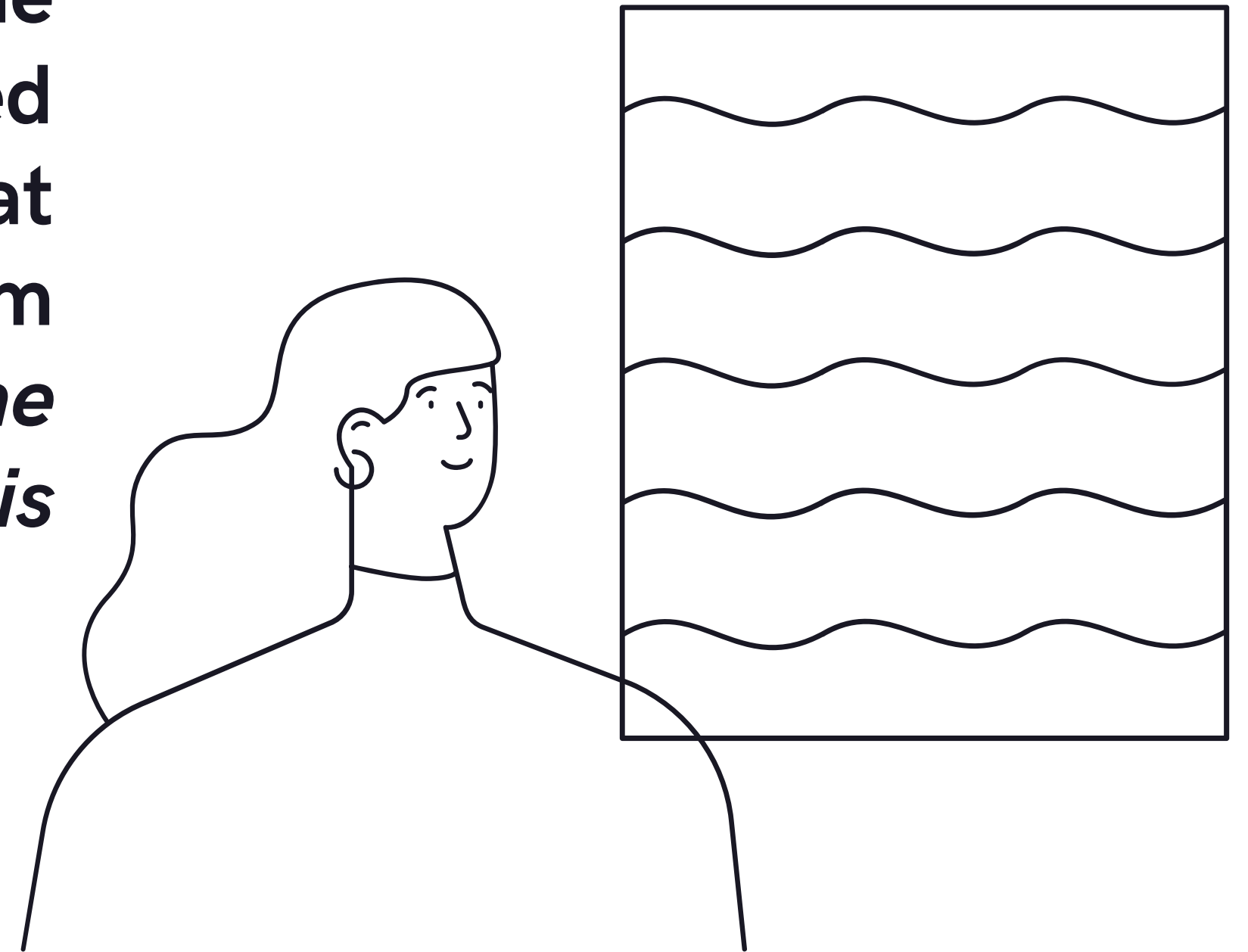
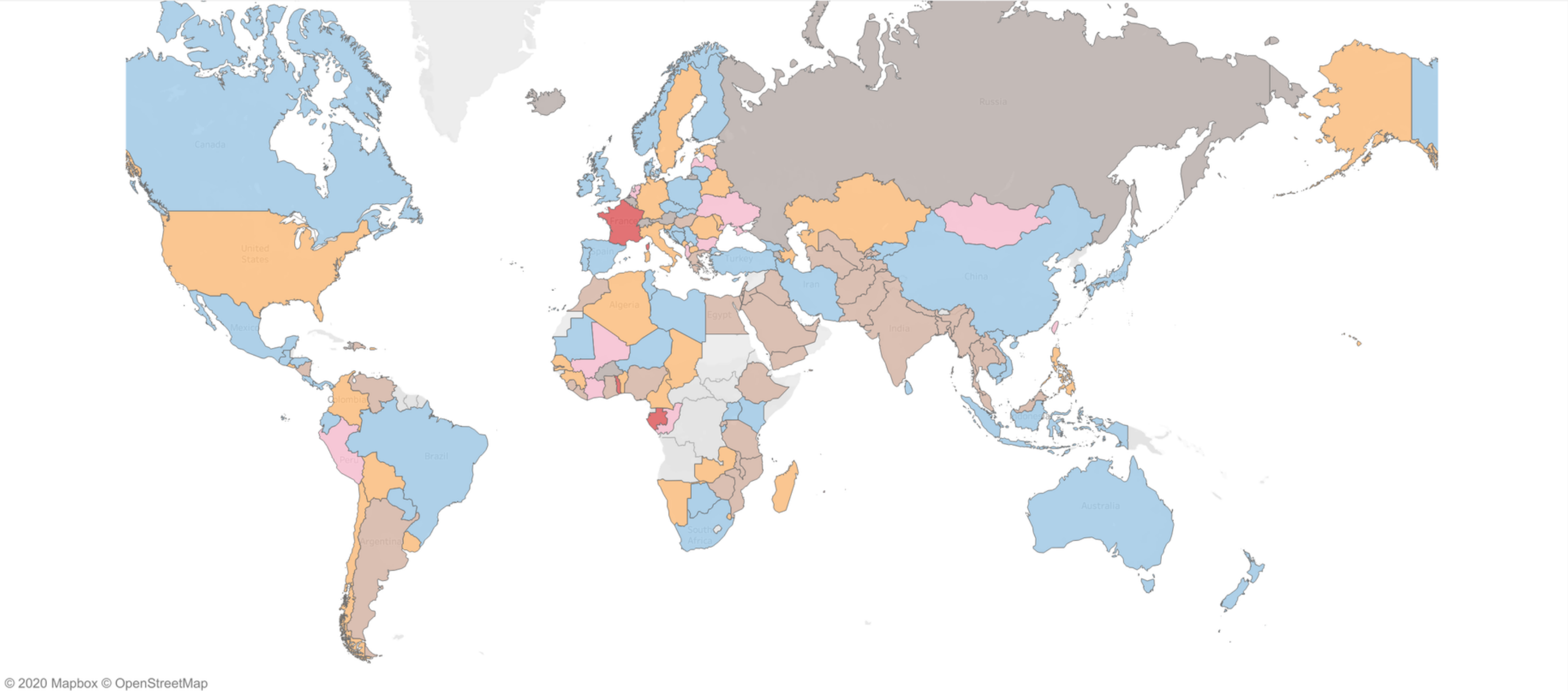


Who are them?

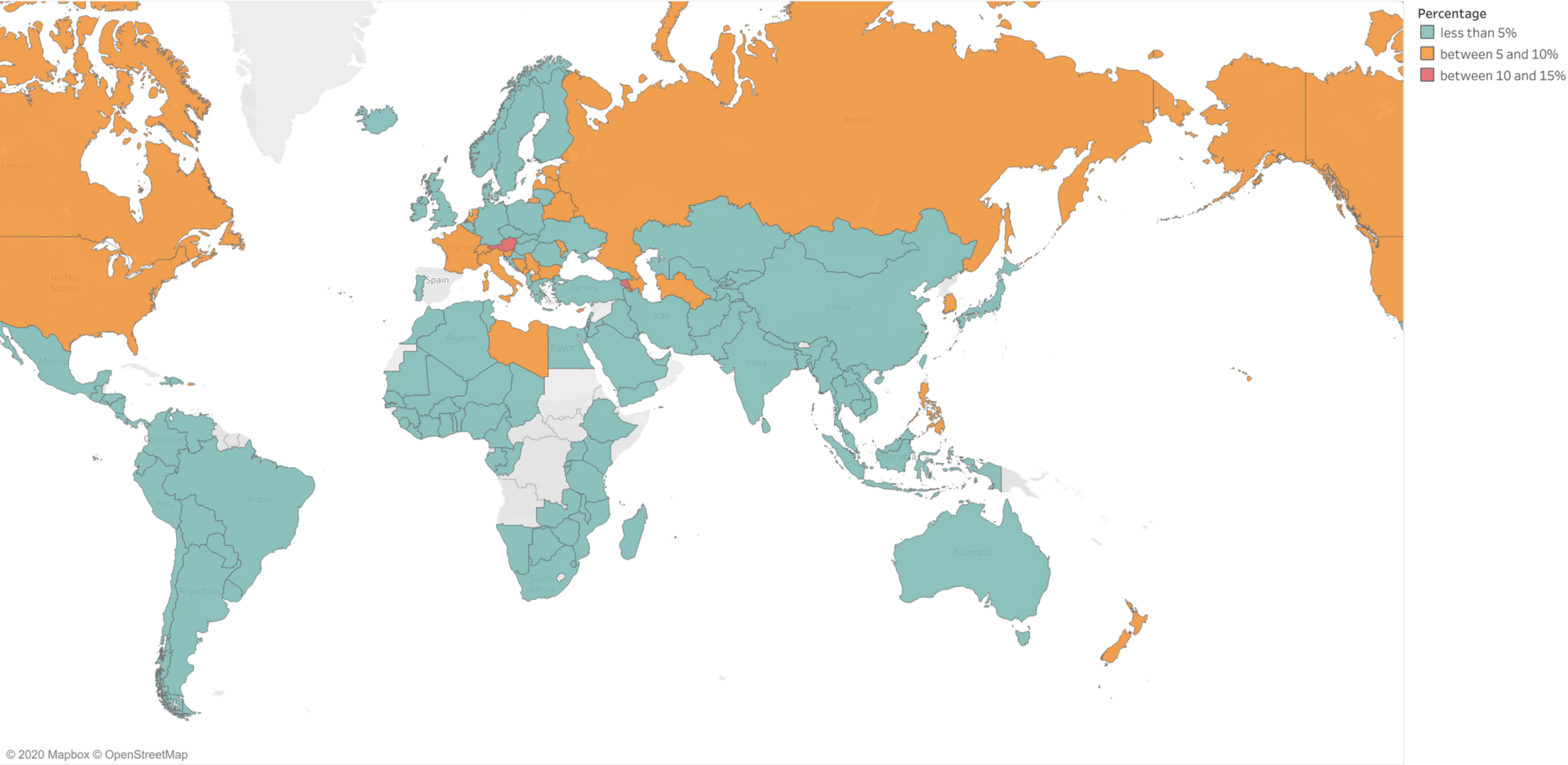
The anti-vaccine movement is as old as vaccine itself. In Britain, there was caricatures of the smallpox vaccine since the years of 1800. The obligation of vaccination caused resistance of individuals that considered it a threat to the freedom of the own body. *The anti-vaccine movement is not new, but it is undoubtedly actual.*

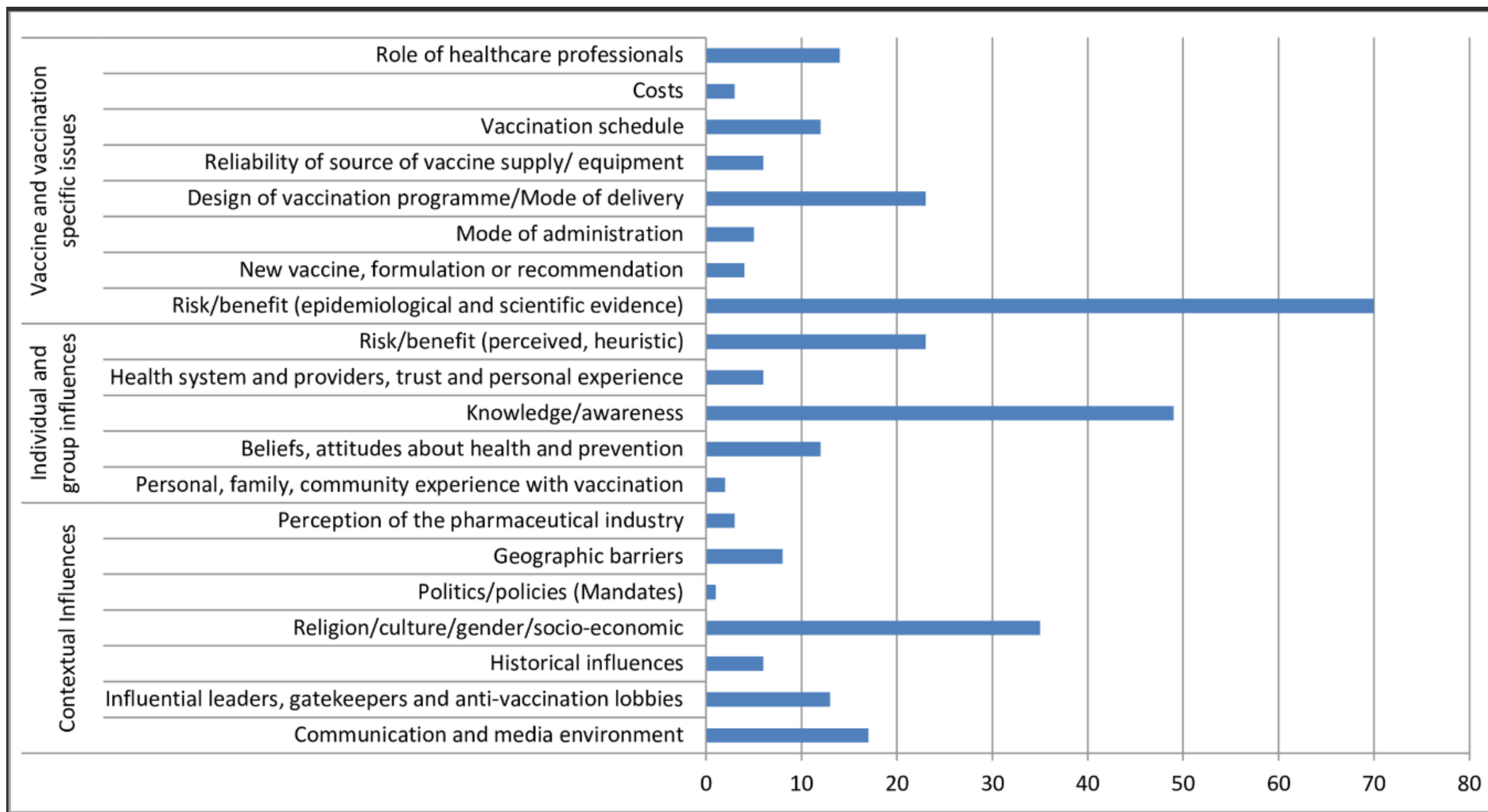


Share That Disagrees That Vaccines Are Safe, 2018



Share that disagrees that vaccines are important for children to have



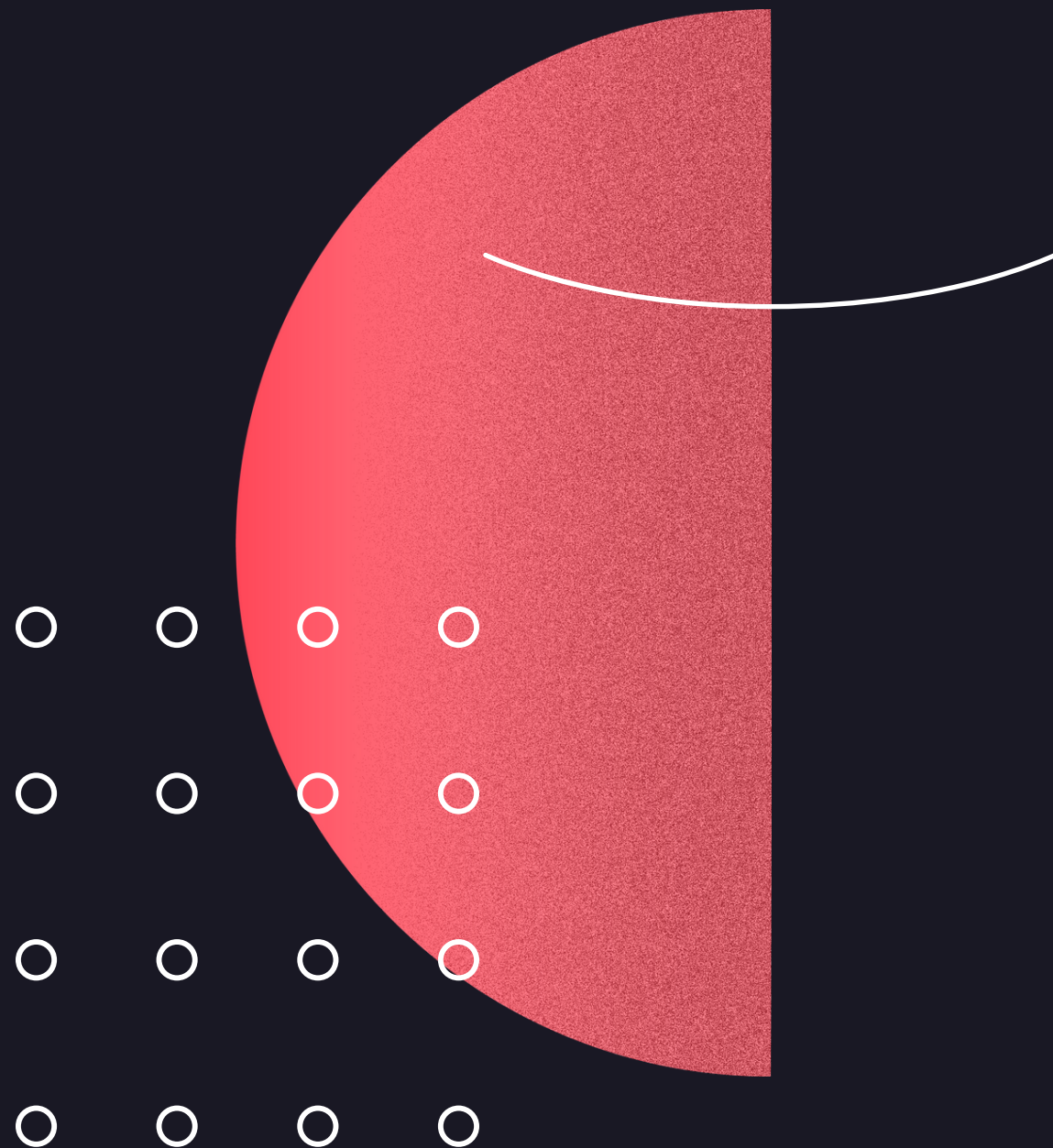


The French are the most skeptical people in the world about the safety of vaccines, with one in three French people (33%) disagreeing that vaccines are safe.

Changes occurred in the last decades, concerning the relation doctor-patient and in the concept of shared decisions, gave more autonomy to the patient, changing the process of decision making when it comes to vaccination..

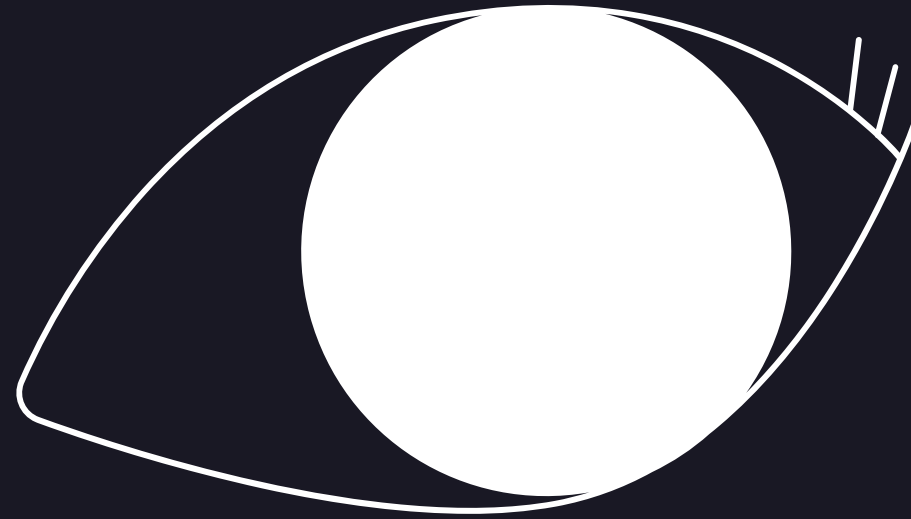
A study carried on France with Medicine students to evaluate their knowledge about vaccination showed lack of understanding and unpreparedness for the medical practice. On this study, the author suggests that the instruction about vaccines is not enough and it is necessary to invest on this field.

Doctors graduated less than twenty or thirty years ago, rarely had to take care of patients suffering from poliomelitte, diphtheria and smallpox. The lack of memory of these diseases, its gravity and its sequels, make the necessity of avoiding them less memorable.



**DOES THE ANTI-VACCINE
MOVEMENT PLAY AN
IMPORTANT ROLE ON SOCIETY?**



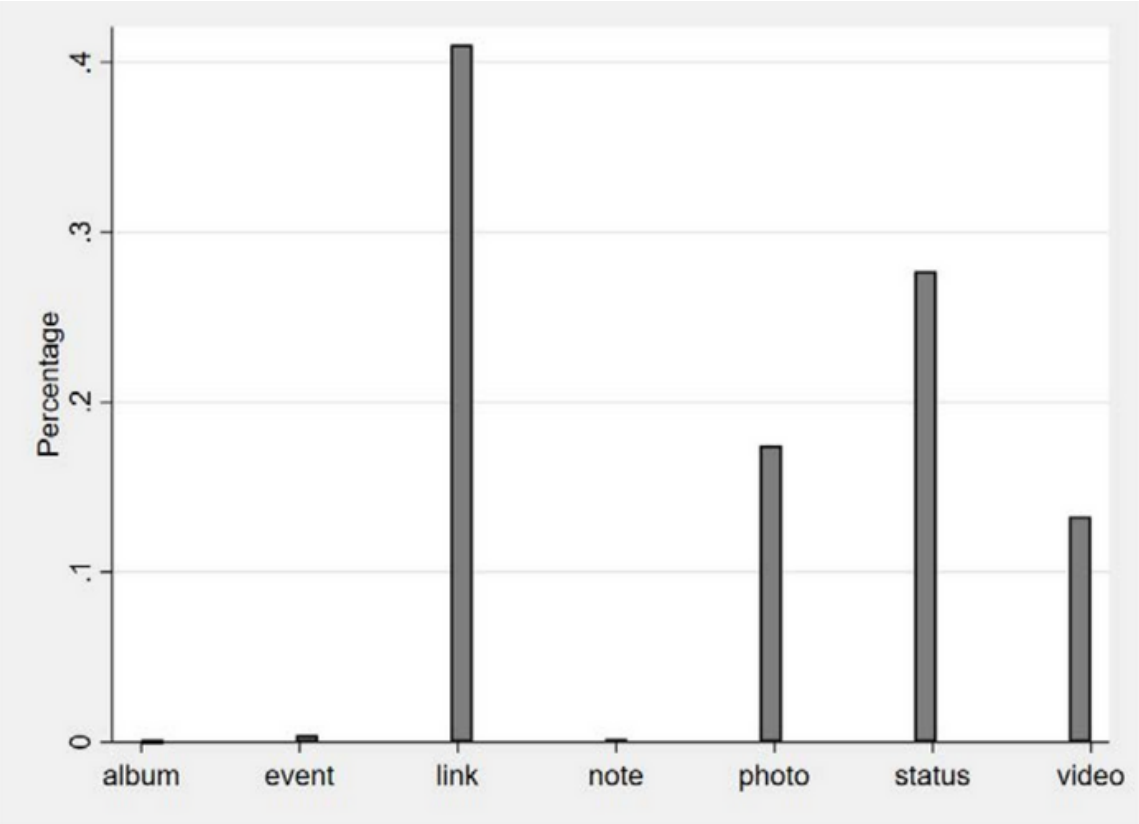


ARE THEY LINKED TO ANY POLITICAL PREFERENCE?
DON'T THEY TRUST SCIENCE?
WHO IS IN THE BACKGROUND?
WHO EXACTLY ARE THEY?
HOW DO THEY INTERACT?

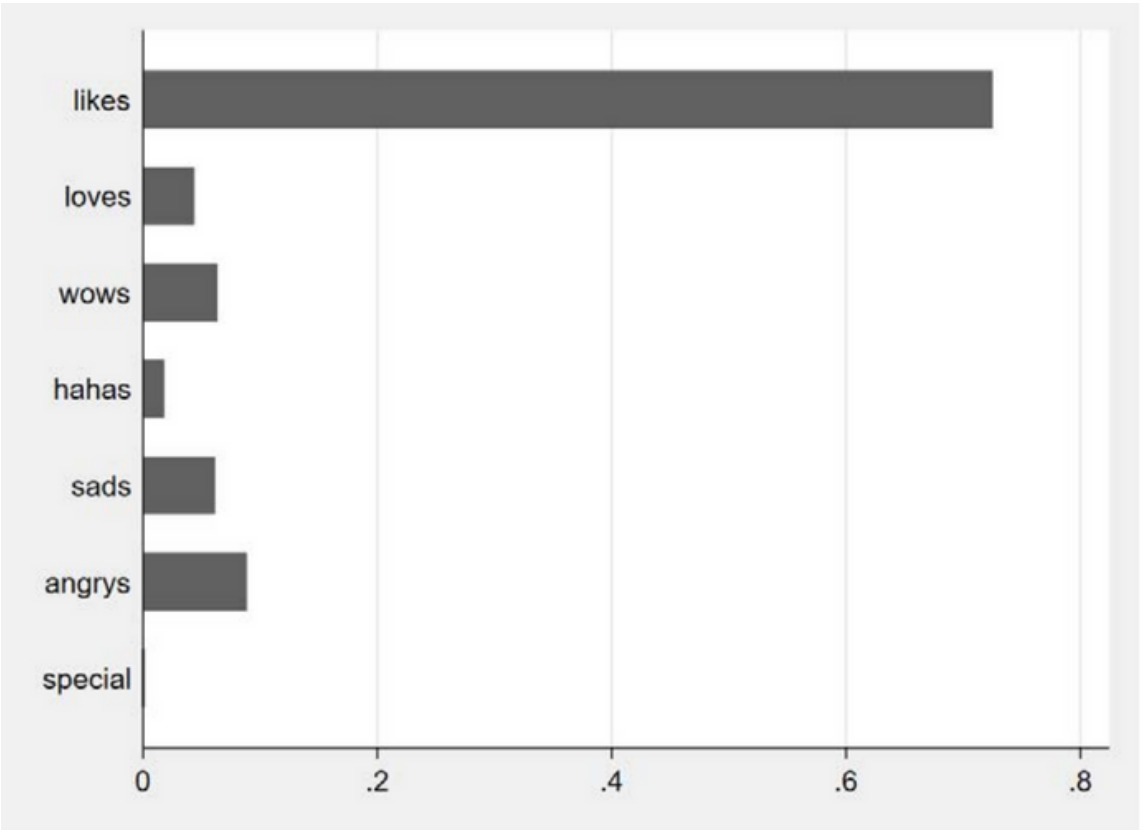
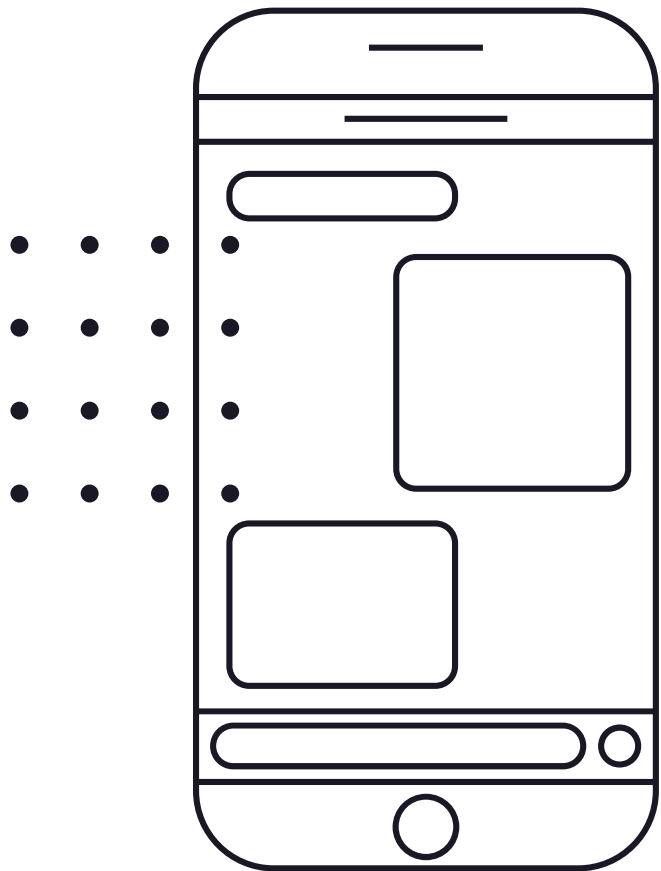
FACEBOOK GROUPS

Spreading Fake News.

Consumers find health information to be extremely difficult to evaluate and to determine validity, so consumers benefit when firms and policymakers take direct action by preventing the spread of fake news articles.



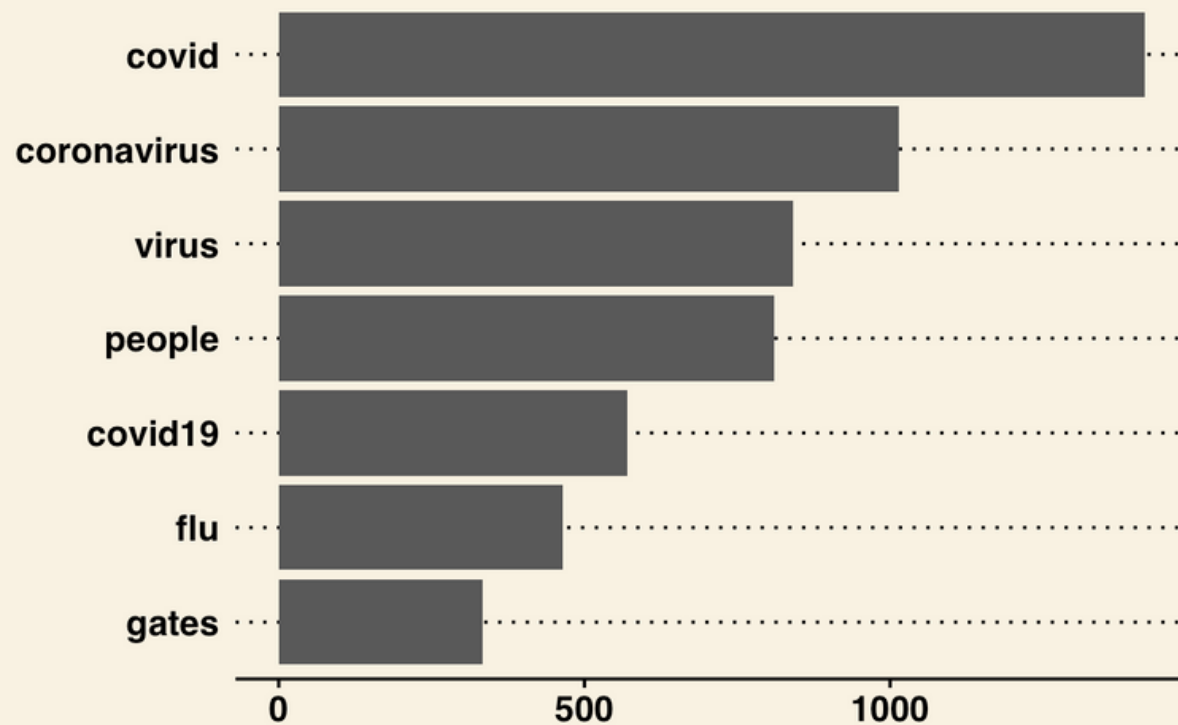
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naturalnews.com	0.022
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bolenreport.com	0.016
bit.ly	0.015
ncbi.nlm.nih.gov	0.012
vaccineimpact.com	0.012
vaxxter.com	0.011
greenmedinfo.com	0.0095
ourfamilymagazine.com	0.0095
thevaccinereaction.org	0.0091
yournewswire.com	0.0085
inmymindtoday.com	0.0081
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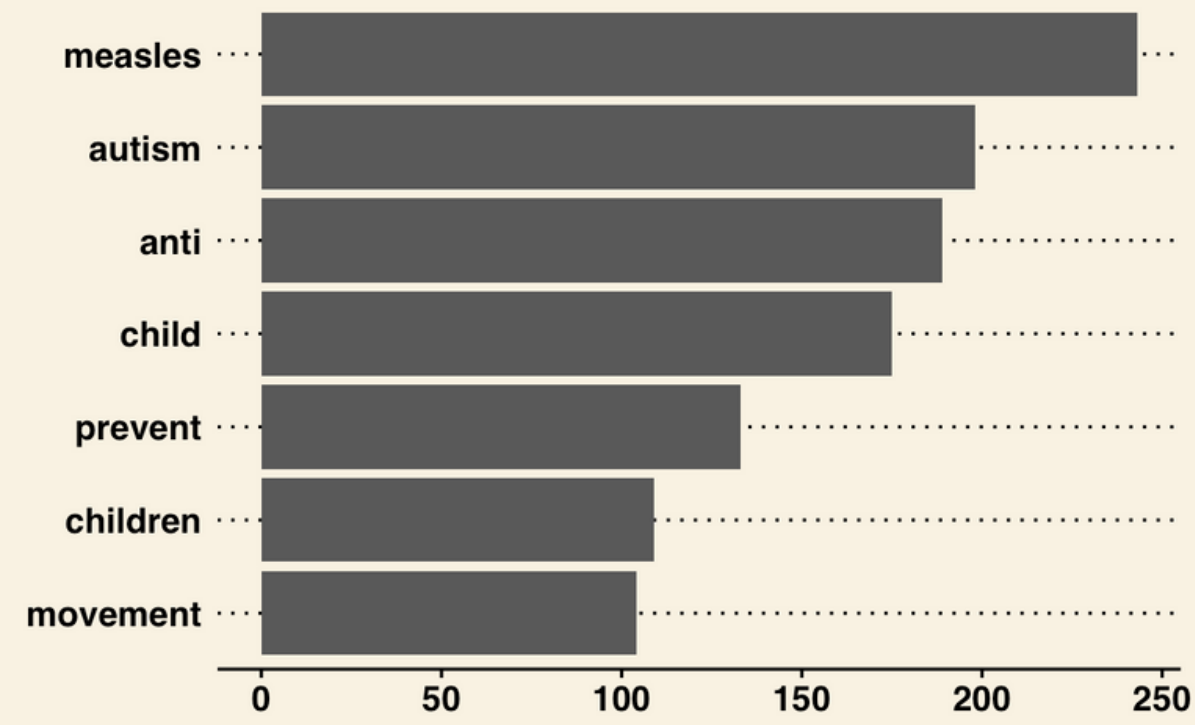
TWITTER ANALYSIS

Data Collection, Pre-Processing

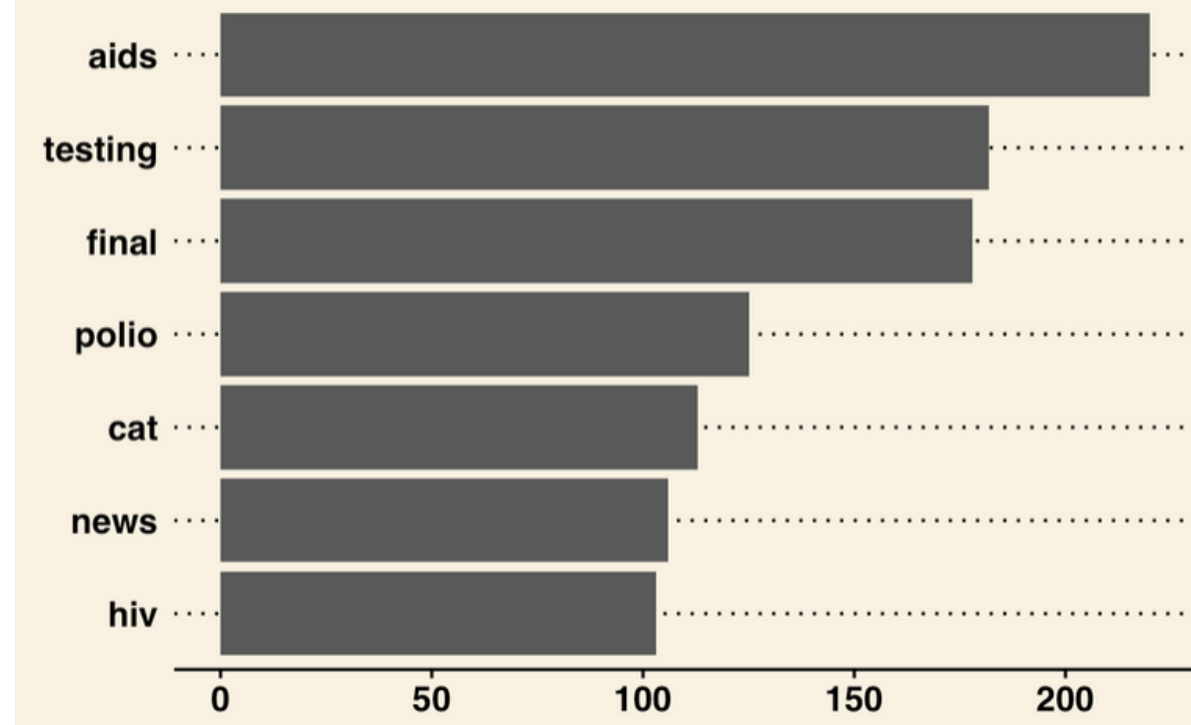
Yesterday Tweets



January/2019



January/2011



IS IT POSSIBLE TO PREDICT IF A TWEET IS PRO OR ANTI VACCINE?

It would be interesting to collect and compare data with only pro and anti vaccine tweets. But labelling it is very difficult. Wait, isn't there an algorithm to do it?

"I hate anti-vaccine people"
Complicated to perform accurate sentiment analysis. Irony and sarcasm is another difficulty found on Twitter

Manually labelling data: expensive. But would it work? If we had a lot of observation, maybe. And that would be totally worth a try.