

Don't Look

UP

Shifting
Climate
Beliefs

Analysis conducted
and report prepared by:

Erik Thulin

Abdurakhim Rakhimov

Anirudh Tiwathia

Research questions

This study was designed to estimate the impact of [Don't Look Up](#) (DLU) and a [video](#) from the film's marketing campaign, intended to amplify the climate message, on a series of key climate mental states.



Preliminary Research Question

Who watched *DLU* and how did they receive it?



Primary Research Question 1

How does watching *DLU* and the marketing video impact climate mental states?



Primary Research Question 2

What do we estimate the impact of watching *DLU* was on the climate mental states of those who naturally watched it, and what would the impact have been if those viewers had also viewed the marketing video?

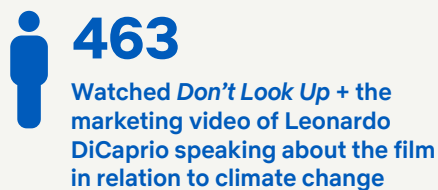
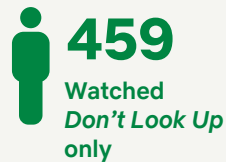
Research Methodology

This **study** investigated the influence of *Don't Look Up* and a video from its marketing campaign on film viewers' climate mental states.

This study consisted of **two phases**:

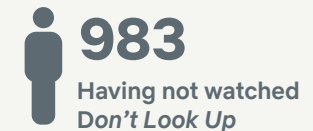
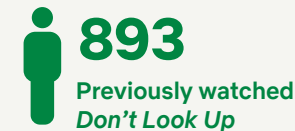
Phase A: Randomized Experiment

1402 participants participated in a three-stage randomized field experiment consisting of a pre-survey, in-field content viewing, and post-survey to assess the impact of watching *Don't Look Up* and the marketing video. Participants were recruited in May and June of 2022.



Phase B: Cross-Sectional Survey

1881 participants responded to a survey to profile those who did (and did not) naturally watch *Don't Look Up*. Participants were recruited in May and June of 2022.





For Phase A & B, study conducted in local languages in 10 countries:


- UK
- Brazil
- Mexico
- USA
- Canada
- France
- Germany
- Spain
- Italy
- Australia

All analyses are weighted to represent the distribution of age, gender, and political orientation within each country and country population size

Analysis Strategy:

 **Preliminary Research Question:**
Assessed using descriptive statistics with **Phase B data**

 **Primary Research Question 1:**
Assessed using regression with **Phase A data**, improving precision through baseline adjustment

 **Primary Research Question 2:**
Assessed using transportation analysis using **Phase A and B data** to adjust experimental results to approximate the population who naturally viewed the film

For a detailed description of the methodology, see appendix on pages 23-25.

Study Outcome Measures

The study allowed us to assess the impact of viewing *Don't Look Up* and the marketing video on the following measures:

Climate action mental state measures were selected based on a review of the academic literature to reveal if the film had changed psychological drivers and leading indicators of taking climate action.

Threat perception: certainty that climate change is a significant threat to society

Self-efficacy: Believing you are capable of taking action which can make a significant difference tackling climate change

Collective-efficacy: Believing that people working together are capable of making a difference in tackling climate change

Worry: worry about climate change

Personal normative belief: believing that people should take action to address climate change

Empirical expectations: believing others are taking action to address climate change

Normative expectations: believing others think people should take action to address climate change

Behavioral intention: Reported likelihood of taking action to address climate change

Cost willingness: Reported amount of sacrifice in time, money, and effort willing to make to address climate change

Supporting government action: Degree of support (or opposition) to the government taking action to address climate change

Climate voter: Reported unwillingness to vote for a candidate who opposed significant action on climate change, even if in agreement on all other issues

Email contact: Willing to sign up to receive information on taking action to address climate change

Film-tailored climate mental state measures were selected to represent the thematic climate messages of *Don't Look Up*.

Degree each of the following is preventing significant action on climate change:

- Fossil fuel companies
- Other companies
- Political corruption
- Public disinterest
- Social and political division
- Misinfo. and conspiracy theories

Amount of time and resources each of the following is spending to address climate change:

- Companies
- Other people in your country
- Government
- News media

Collective ability of people working together to influence the following to address climate change:

- Government
- News media
- Companies
- Other people in your country

Threat of climate change to each of the following:

- The economy
- Political stability
- Your way of life
- Other people in your country
- Wildlife and natural habitats

Ability to be friends with someone who disagrees on climate change

Believing it is important to listen to scientists on what to do about climate change

Being willing to work with anyone to find solutions to address climate change, even if disagreeing with them on other important matters

Believing that taking action on climate change will stimulate economic growth

Confidence in institutions ability to work together to address climate change

Executive summary of findings



Preliminary Research Question

Who watched *DLU* and how did they receive it?

- Those who naturally watched *DLU* had a **largely favorable impression** and the film made them feel **surprised** and **motivated** over other emotions.
- Natural *DLU* viewers showed **higher levels of climate mental states than non-viewers**, but also differed on demographics and psychographics. This means that the observed differences in climate mental states may not be due to the film.



Primary Research Question 1

How does watching *DLU* (and the marketing video) impact climate mental states?

- **Viewing the film alone showed a mix pattern of impact**, increasing some climate mental states statistically significantly while having a non-significant impact on others.
- **Viewing film plus the marketing video produced larger impact** and more consistently statistically significant effects across the large majority of climate mental state measures.



Primary Research Question 2

What do we estimate the impact of watching *DLU* was on the climate mental states of those who naturally watched it, and what would the impact have been if those viewers had also viewed the marketing video?

- We estimate **smaller impacts on those who watched the film naturally** as compared to the more representative population who watched the film in our experiment.
- This reduction of impact among natural viewers occurs when estimating both the impact of *DLU* alone as well as the hypothetical impact of those viewers watching *DLU* along with the marketing video.

Table of Contents

01	Viewer Profile	pp. 8-13
02	Experiment Results	pp. 15-17
03	Transported Results	pp. 19-21
04	Methodology Appendix	pp. 23-25

Viewer profile:

Who watched *Don't Look Up* and how they received it.

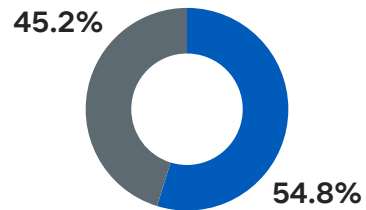
Demographic and political profile of *DLU* viewers

Don't Look Up viewers were more likely to be on the political left, younger, and male than non-viewers.

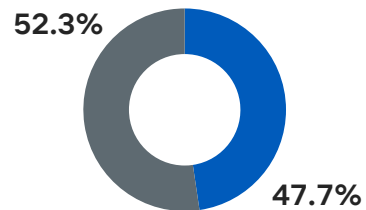
Men were more likely to watch *DLU*

Watched *DLU*

Female Male



Did Not Watch *DLU*



Those 18-34 were more likely to watch *DLU*

Watched *DLU*



Did Not Watch *DLU*



Age group

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

Those on the political left were more likely to watch *DLU*

Watched *DLU*



Did Not Watch *DLU*



← Politically to the Left | Politically to the Right →

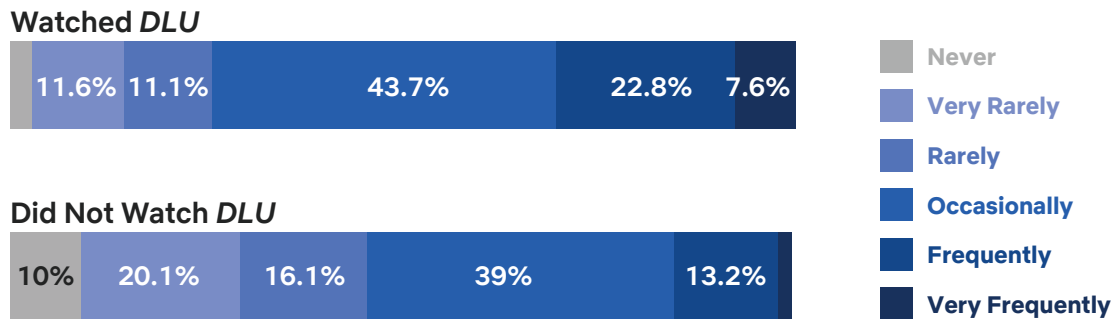
On a scale of 1 to 10, where do you lean politically?

- Very left (1 to 3)
- Somewhat left (4 to 5)
- Somewhat right (6 to 7)
- Very right (8 to 10)
- Don't Know

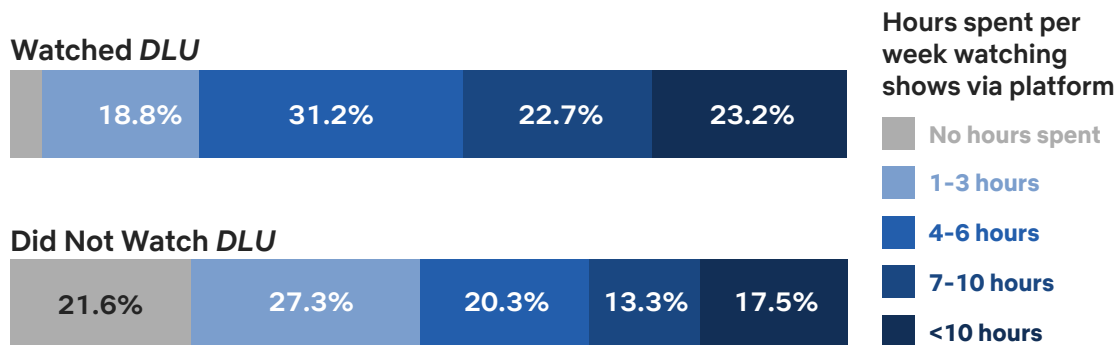
Viewership habits of *DLU* viewers

Don't Look Up viewers were more likely to watch content in general, including on social issues and across genres.

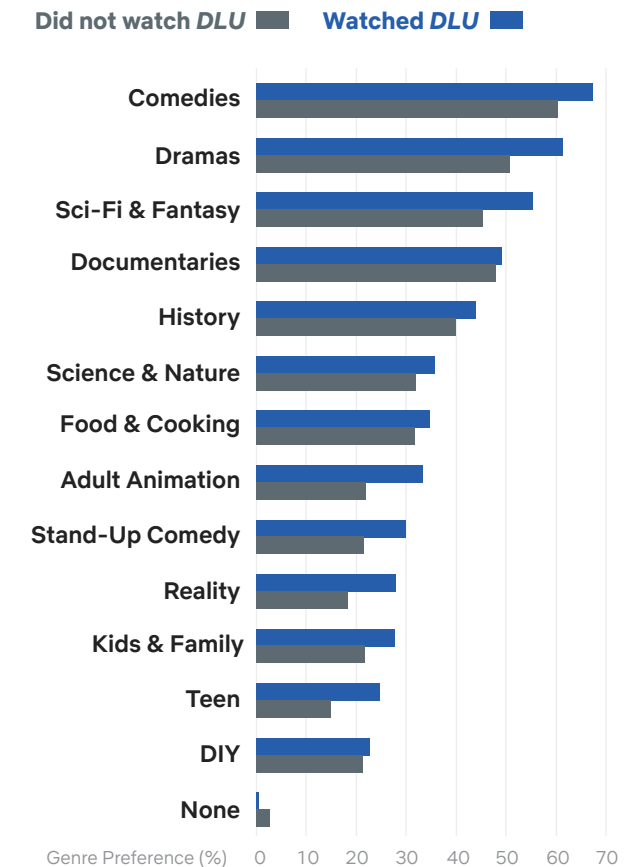
How often do you watch films that focus on a social issue?



How many hours do you spend in a typical week watching shows or movies via a streaming service (e.g. Netflix, Amazon Prime Video etc.)



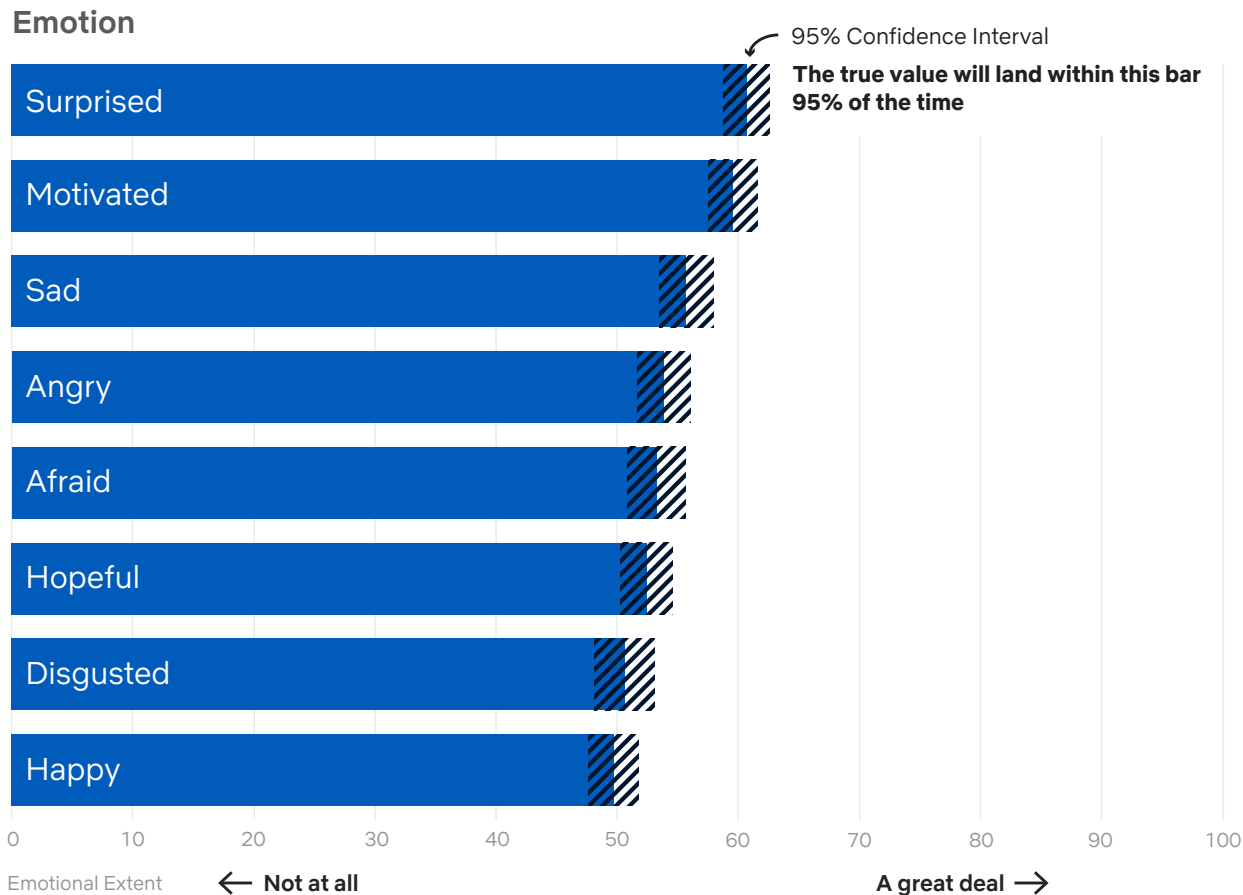
Which of the following types of TV show and movie genres do you prefer?



Viewer response to watching *DLU*

Research finds emotions are common motivations for action. Viewers reported the film made them feel surprised and motivated more than other emotions. Viewers generally reported enjoying the film and willing to recommend it, a possible path for the social diffusion of the film's impact.

To what extent did the film make you feel each of the following?

To what extent did you enjoy watching *Don't Look Up*?

76.5

Average enjoyment on 100 point scale

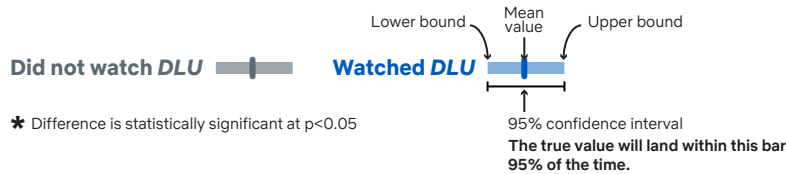
How likely are you to recommend *Don't Look Up* to people you know?

75.2

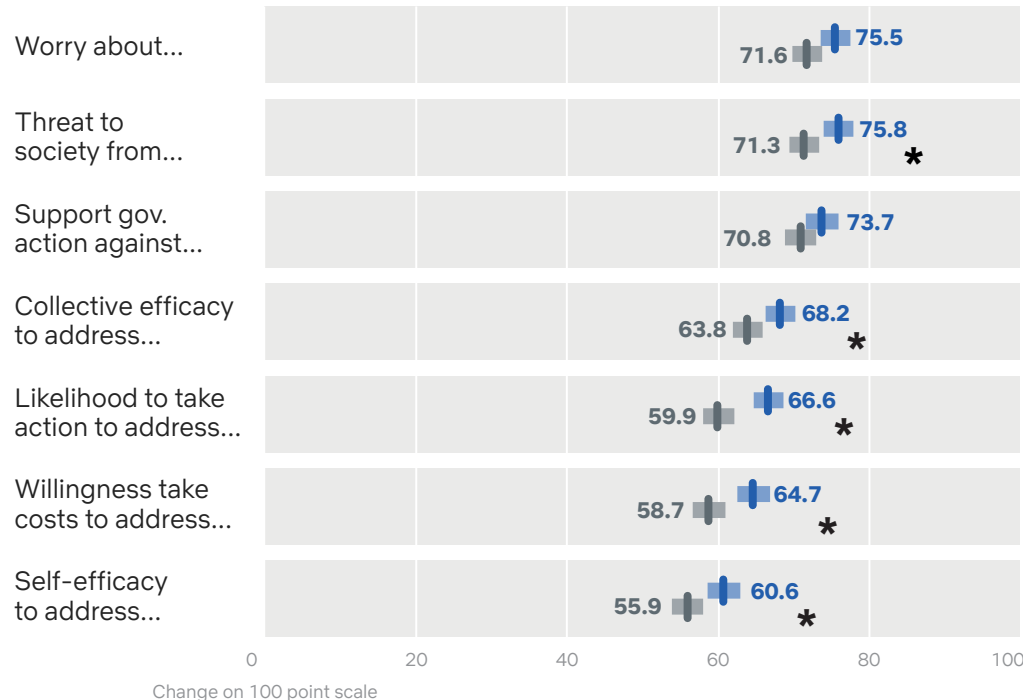
Average Likely to recommend on a 100 point scale

Climate action mental states of those who watched *DLU*

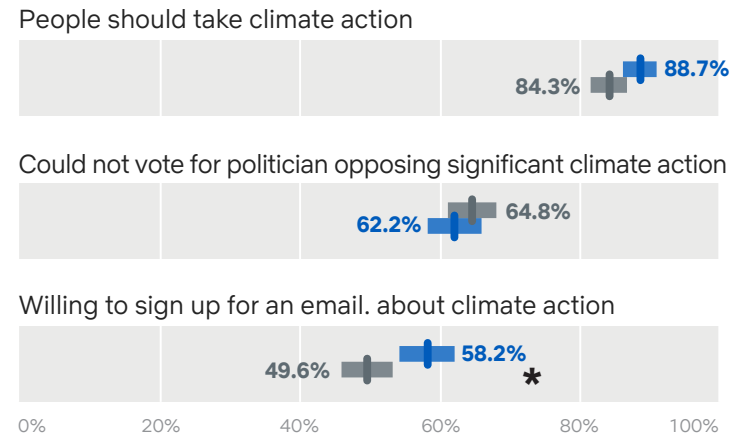
Relative to non-viewers, *Don't Look Up* Viewers gave greater endorsement to the large majority of climate action mental states.



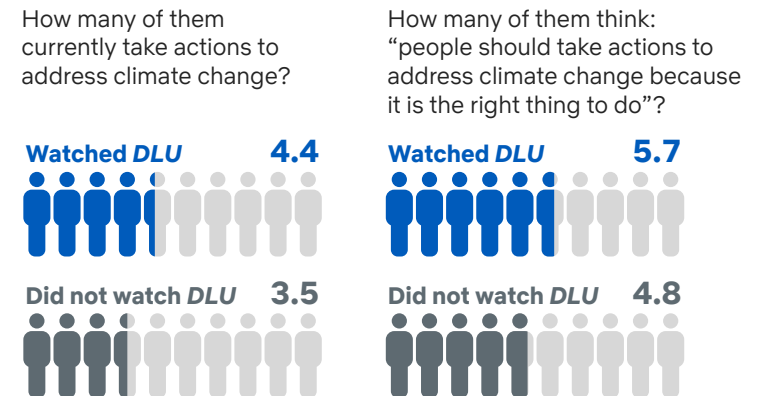
Climate Change



Percentage of people who endorse

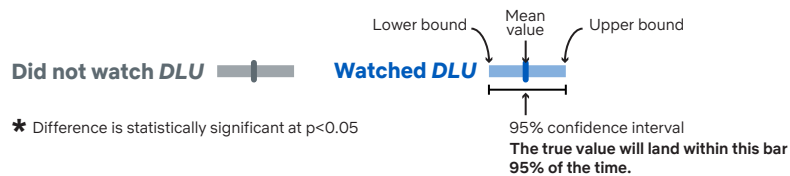


Imagine 10 people you know...

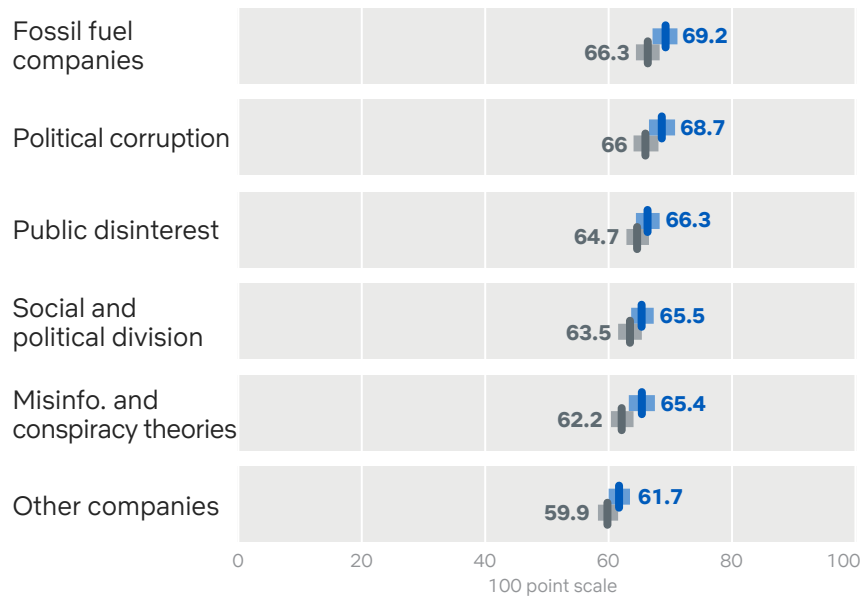


Film-tailored climate mental states of *DLU* viewers

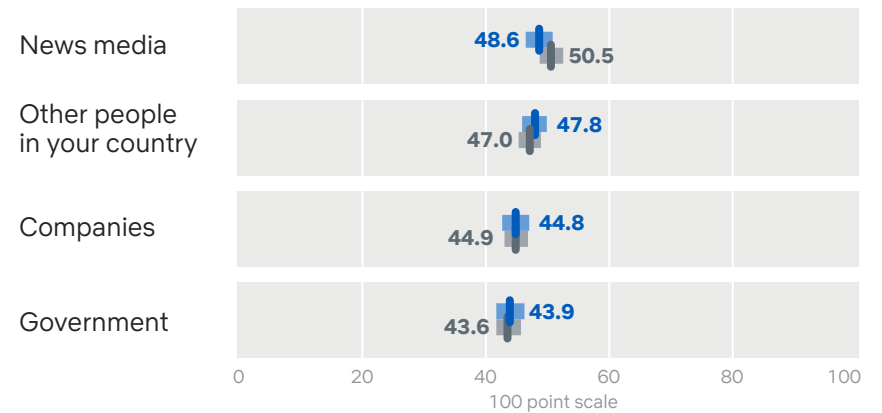
Don't Look Up viewers gave greater endorsement to the large majority of film-tailored climate mental states, although most differences are statistically non-significant.



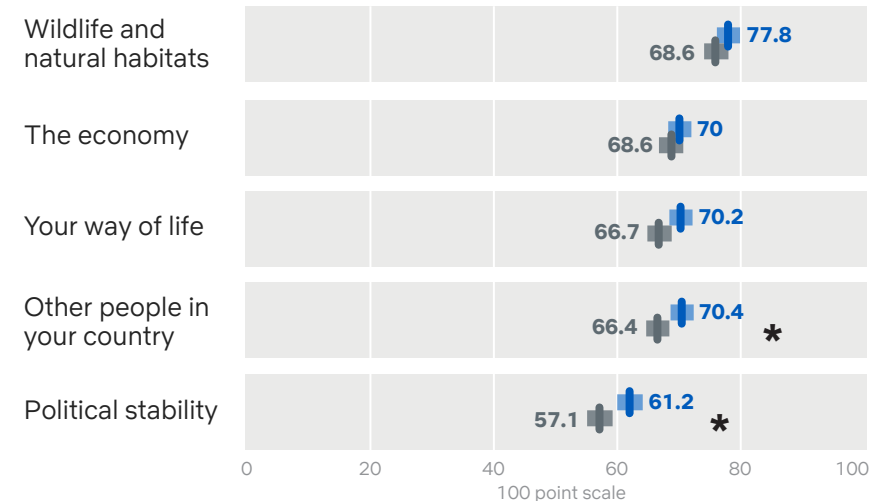
To what extent do you think the following are preventing significant action on climate change?



How much time and/or resources do you think the following are spending on addressing climate change?

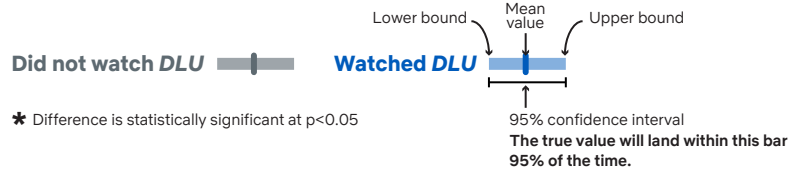


To what extent do you think climate change is a threat to each of the following?

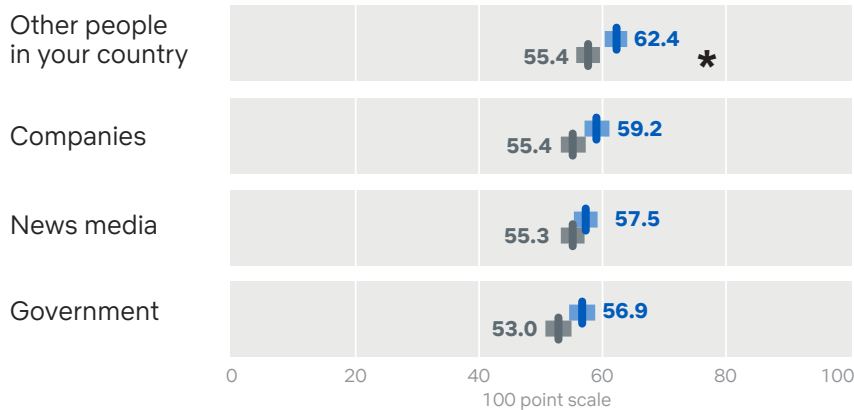


Film-tailored climate mental states of DLU viewers continued

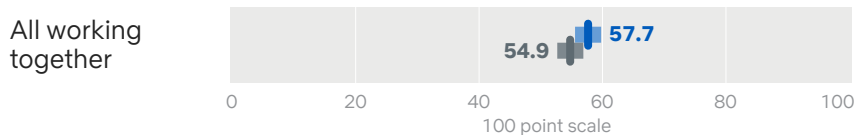
Don't Look Up viewers gave greater endorsement to the large majority of film-tailored climate mental states, although most differences are statistically non-significant.



How confident are you that people like you - working together - can influence the following organizations to tackle climate change?

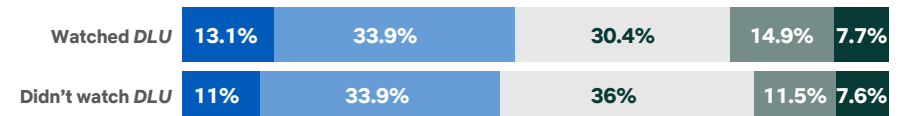


How confident are you that the government, businesses, and other institutions - working together - can tackle climate change?



To what extent do you agree or disagree with each of the following statements regarding climate change?

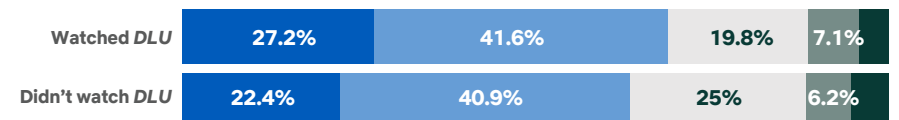
Could be friends with someone even if we disagree about climate



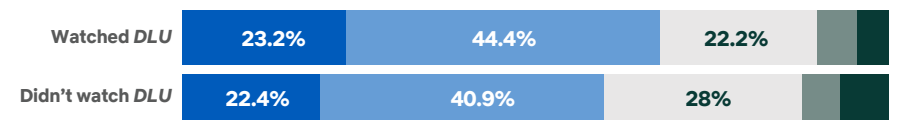
Important to listen to scientists about climate change



Taking action on climate change will stimulate economic growth



Willing to work with anyone to find solutions for climate change

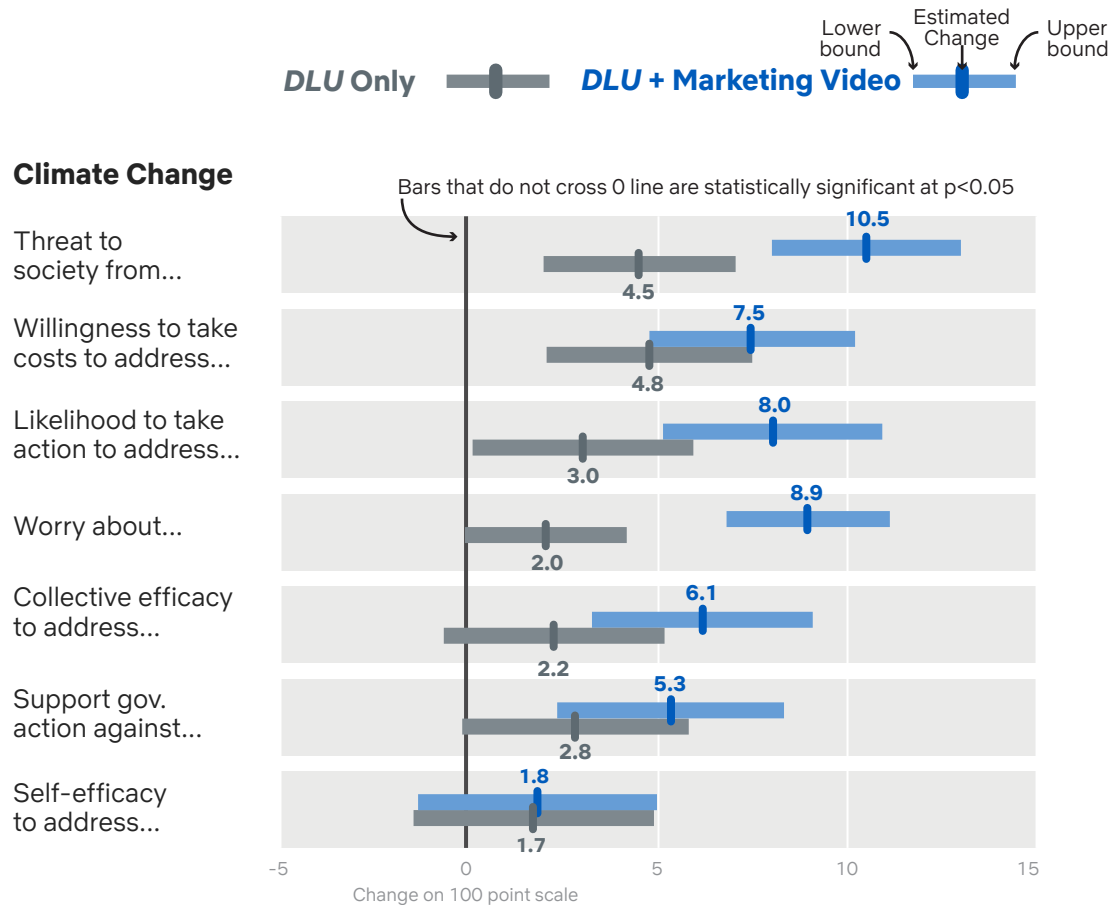


Experiment results:

The randomized experiment allows us to estimate the impact of the film on a representative population. Participants were randomly assigned to watch *Don't Look Up*, *Don't Look Up* and the marketing video, or a neutral control film. By comparing responses between these conditions we can estimate the impact of the film (and the marketing video) as compared to viewing the neutral control film.

Impact of viewing *DLU* and campaign content on climate action mental states

While viewing *Don't Look Up* alone shows a mixed pattern of results, significantly driving some mental states but not others, viewing the film plus the marketing video produces consistently statistically significant larger impacts.

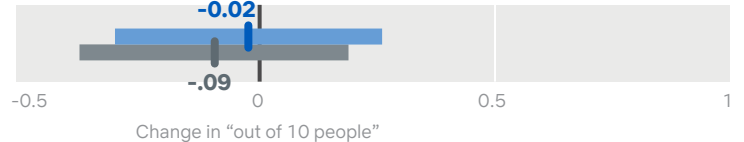


Imagine 10 people you know. How many of them...

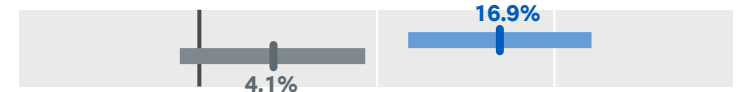
Think people should take action to address climate change because it is the right thing to do?



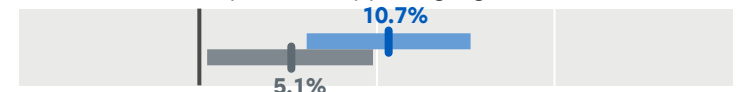
Currently take action to address climate change



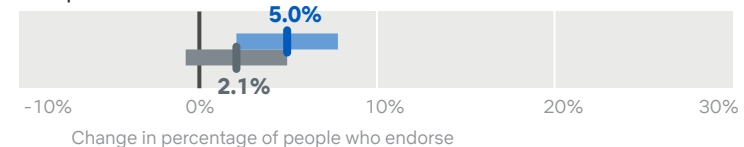
Willing to sign up for an email about climate action



Could not vote for politician opposing significant climate action



People should take climate action

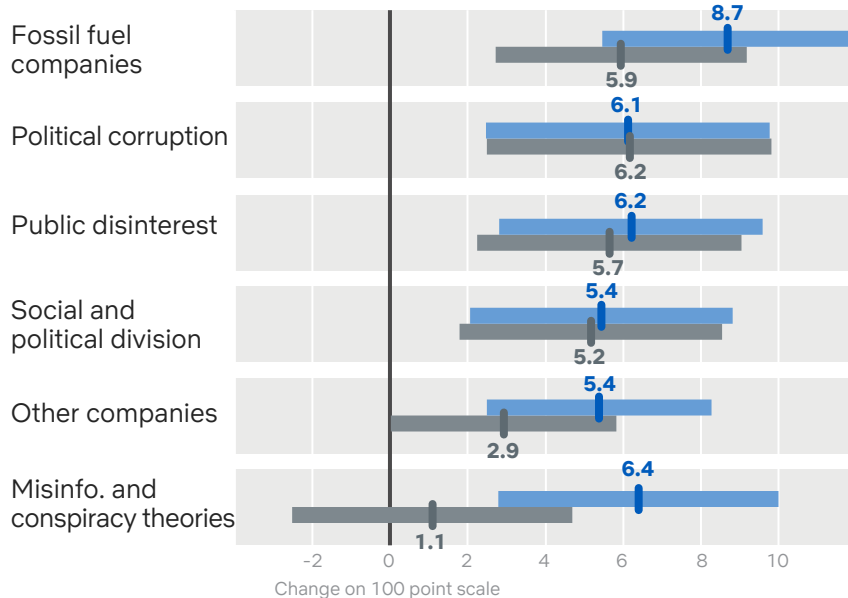


Impact of viewing *DLU* and campaign content on film-tailored climate mental states

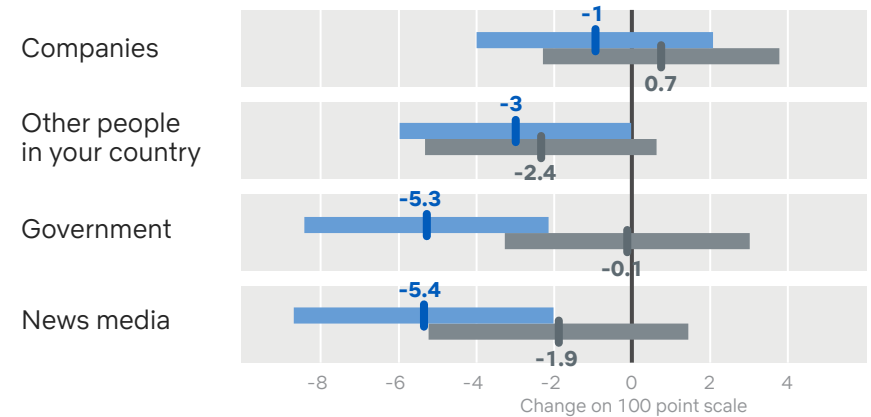
Viewing *Don't Look Up* alone showed a mixed pattern of results. Adding the marketing video was more likely to produce statistically significant impact.



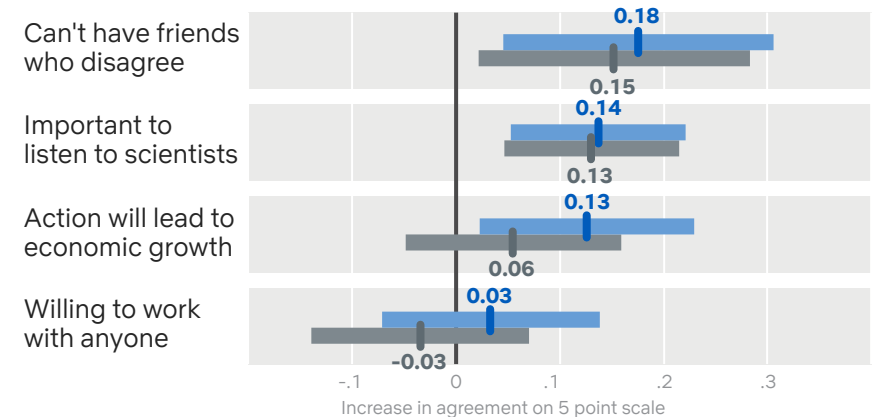
To what extent do you think the following are preventing significant action on climate change?



How much time and/or resources do you think the following are spending on addressing climate change?



To what extent do you agree or disagree with each of the following statements regarding climate change?

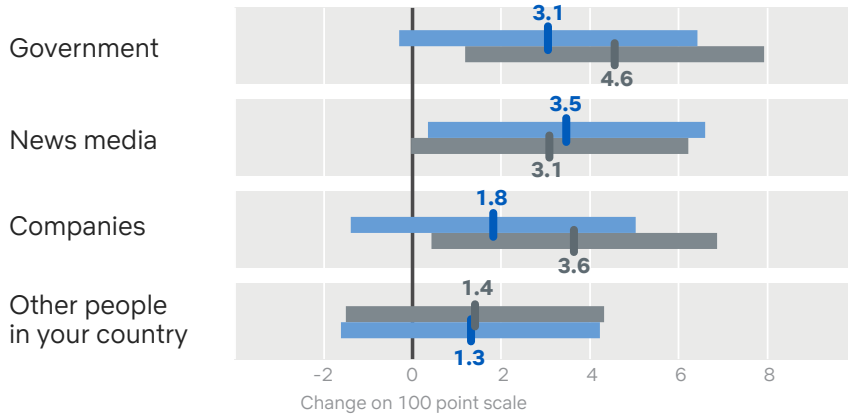


Impact of viewing *DLU* and campaign content on film-tailored climate mental states continued

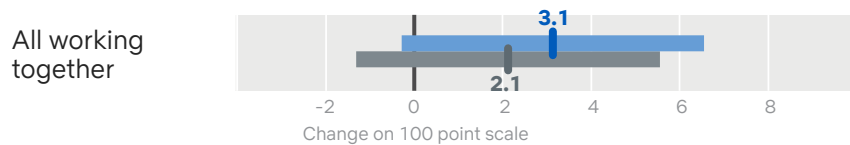
Viewing *Don't Look Up* alone showed a mixed pattern of results. Adding the marketing video was more likely to produce statistically significant impact.



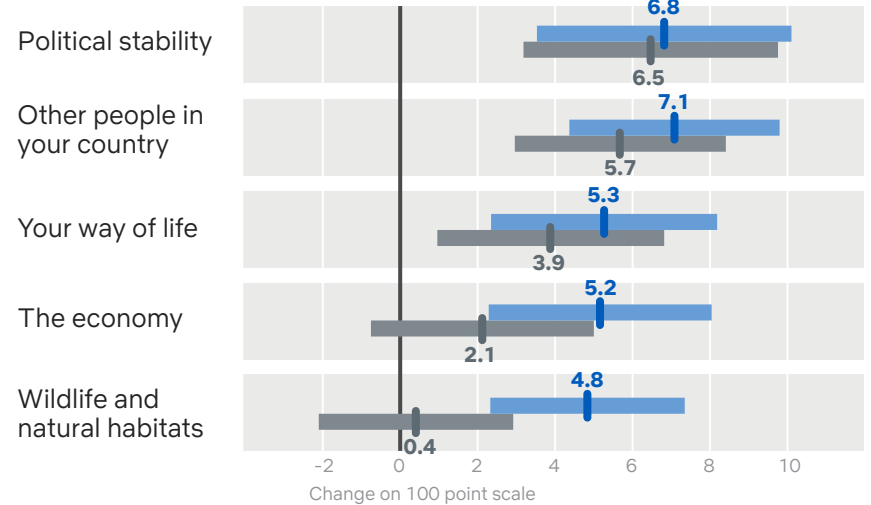
How confident are you that people like you - working together - can influence the following organizations to tackle climate change?



How confident are you that the government, businesses, and other institutions - working together - can tackle climate change?



To what extent do you think climate change is a threat to each of the following?

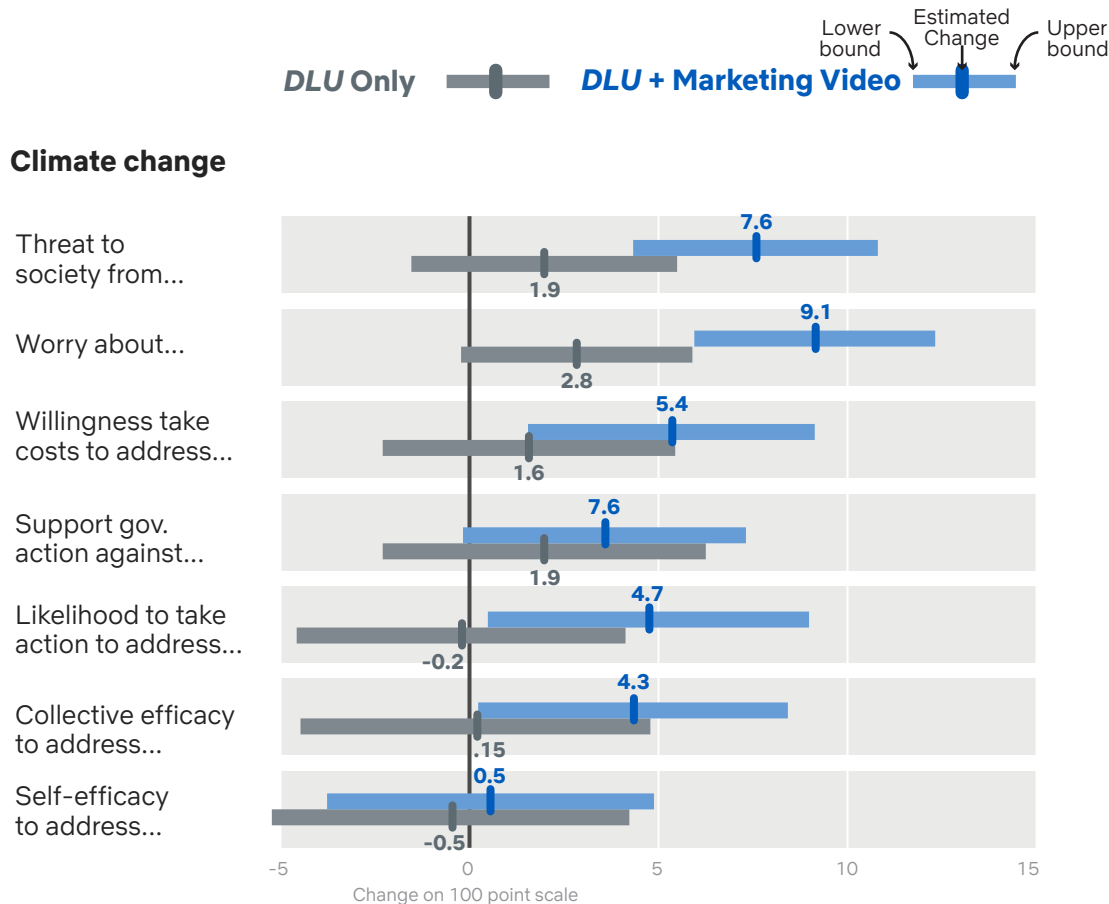


Transported results:

Transportation analysis allows us to reweigh the findings in the randomized experiment to approximate those who viewed the film naturally outside the study (natural viewers). While the randomized experiment can speak to the impact of the film on a representative population, this analysis allows us to estimate the impact *Don't Look Up* had on natural viewers as well as what the impact *would have been* if those natural viewers had also engaged with the marketing video.

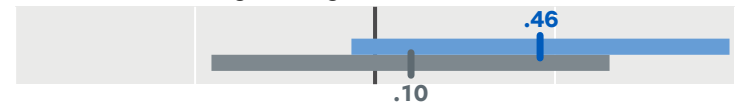
Transported estimates of actual impact of *DLU* on natural viewers' climate action mental states

The estimated impact of *Don't Look Up* on natural viewers' climate action mental states was generally smaller than in the general population. The estimated hypothetical impact of if actual viewers had also watched the marketing video also became smaller than the general population, but was more likely to remain statistically significant.

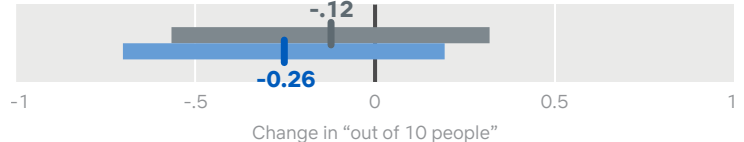


Imagine 10 people you know. How many of them...

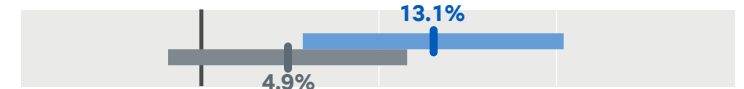
Think: people should take action to address climate change because it is the right thing to do?



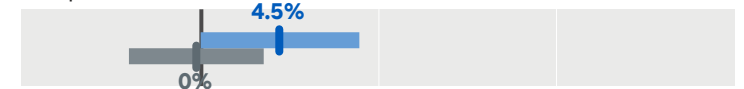
Currently take action to address climate change



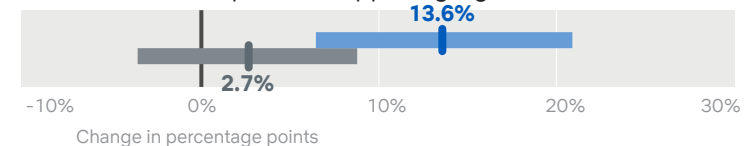
Willing to sign up for an email about climate action



People should take climate action



Could not vote for politician opposing significant climate action

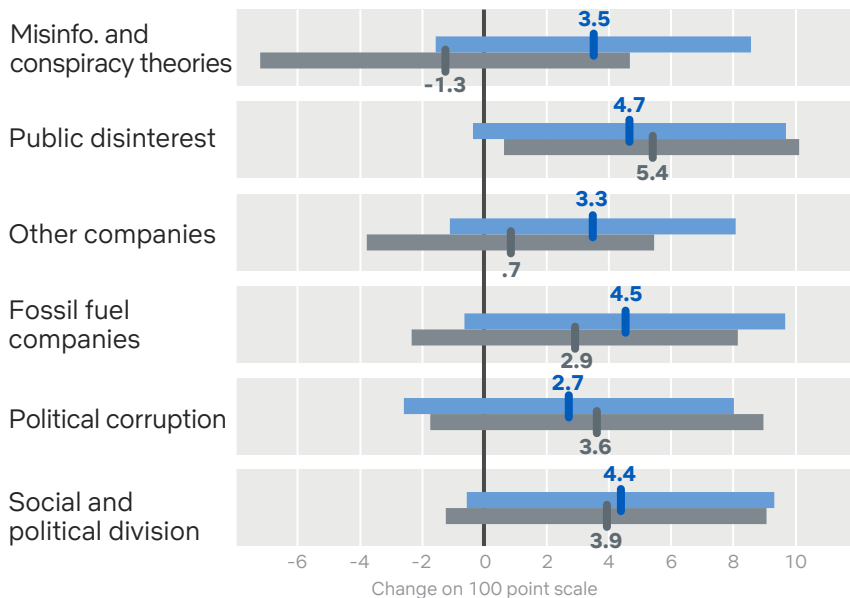


Transported estimates of actual impact of *DLU* on natural viewers' film-tailored climate mental states

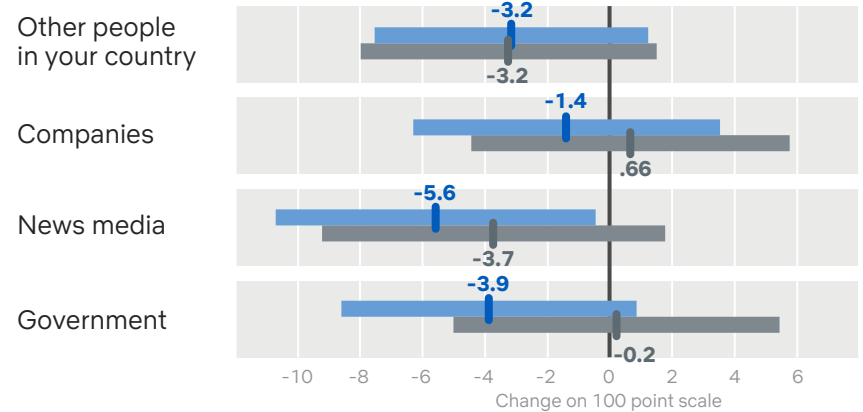
The estimated impact of *Don't Look Up* on natural viewers' film-tailored climate mental states was generally non-significant. The estimated impact if actual viewers had also watched the marketing video also became smaller and was also generally non-significant.



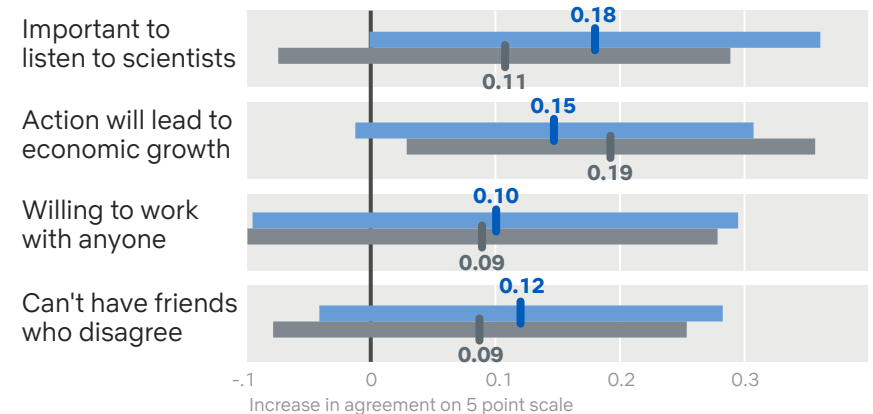
To what extent do you think the following are preventing significant action on climate change?



How much time and/or resources do you think the following are spending on addressing climate change?



To what extent do you agree or disagree with each of the following statements regarding climate change?

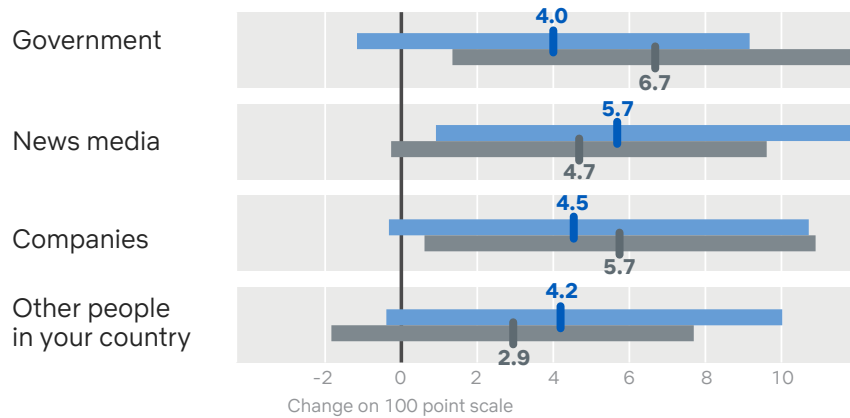


Transported estimates of actual impact of *DLU* on natural viewers' film-tailored climate mental states continued

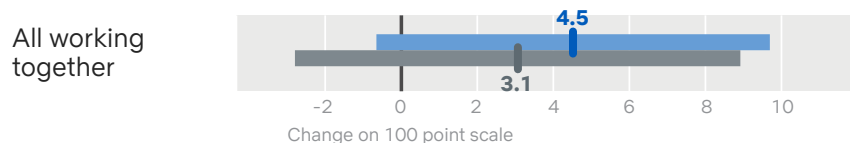
The estimated impact of *Don't Look Up* on natural viewers' film-tailored climate mental states was generally non-significant. With the exception of increased belief in the various threats of climate change, the estimated hypothetical impact of if actual viewers had watched the marketing video also became smaller than the general population and was also largely non-significant.



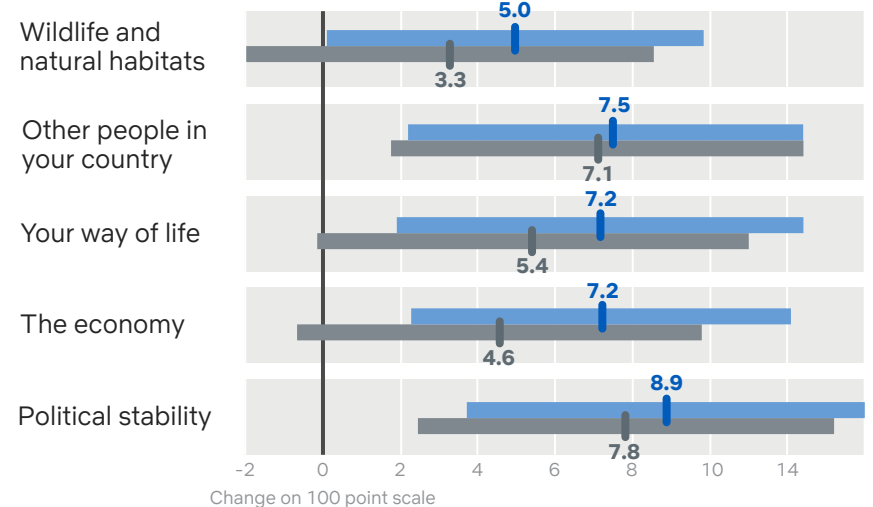
How confident are you that people like you - working together - can influence the following organizations to tackle climate change?



How confident are you that the government, businesses, and other institutions - working together - can tackle climate change?



To what extent do you think climate change is a threat to each of the following?



Thank you

Methods appendix

Phase A data collection methods

This study was conducted in two phases. Phase A was a randomized experiment with a baseline where respondents were assigned to watch *Don't Look Up*, *Don't Look Up* plus the marketing video, or control. Phase B was a survey of natural viewers and non-viewers of the film.

Sample

Ipsos Mori recruited Netflix users who had not seen *Don't Look Up* as participants from ten target countries (UK, Brazil, Mexico, USA, Canada, France, Germany, Spain, Italy, and Australia) in May and June of 2022. Each country was sampled proportional to its population but with oversampling of the UK, Brazil, and the United States to allow for moderate confidence country-level inference in those countries. Within each country, quotas were used to ensure representativeness on age, gender, region, and income. Participants were screened based on quality checks, including correctly answering one of four film content questions, two of two attention checks, as well as not speeding or straightlining. While 2,734 complete responses were collected, 1,332 failed at least one attention check, leaving 1,402 remaining for analysis.

Design

Phase A consisted of three steps: pre-survey, content viewing, and post-survey. In the pre-survey, participants responded to a series of questions measuring their demographics as well as baseline climate action mental states (see measures). During the content viewing step, participants were randomly assigned to one of three conditions to watch either *Don't Look Up* (n=459), *Don't Look Up* plus a video of Leonardo DiCaprio explaining the climate connection of the film (n=463) [[EN](#), [FR](#), [PT](#), [ET](#), [IT](#), [DE](#)], or one of five control films for stimulus sampling ([Wells & Windschitl, 1999](#)) (n=480). The control films were *Red Notice*, *Love Hard*, *Bruised*, *The Unforgivable*, and *The Lost Daughter*, selected based on being in the top 10 globally during Dec 20–Jan 9 when *DLU* was #1 on Netflix, globally released and accessible, no major environmental, apocalyptic, or seasonal themes, and from a diverse set of genres. In the post-survey, participants responded to the same baseline climate action mental states as well as a set film-tailored climate mental state measures.

Measures

The pre-survey included a series of measures of demographics, content viewership habits, and climate action mental states identified as either important enablers or leading indicators of climate action. In order to disguise the intention of the study, these climate action mental state measures were embedded in a set of measures of other risks (terrorism, poverty, racism, and food safety) selected after a survey of major risk polls (e.g. [Munich Security Index](#)) based on being significant worries, climate-neutral, not related to the film, ideologically independent, and having some individual action component.

The post-survey included the same disguised measures of climate action mental states as well as film-specific knowledge questions to gauge whether the respondent had in fact watched the film. In addition, we collected a supplementary set of film-tailored climate mental states measuring responses to the film-specific climate themes. These measures were not disguised, and therefore have a greater threat of demand effects. They were also not present in the pre-survey, meaning our estimation of impact on them is less precise. Both surveys included an attention check to identify and exclude participants not reading the questions presented. The survey instrument is available [here](#).

Methods appendix

Phase B data collection methods

Sample

Rare's Center for Behavior & the Environment recruited participants from ten target countries (UK, Brazil, Mexico, USA, Canada, France, Germany, Spain, Italy, and Australia) in May and June of 2022. Each country was sampled proportional to its population. Within each country, quotas were used to ensure representativeness on age, gender, region, and income, as well as quotas for relative prevalence of *Don't Look Up* viewership within that country. Participants were screened based on quality checks including an attention check as well as not speeding or straight-lining. After applying these quality checks, the sample included 1,881 total respondents.

Design

In order to be able to estimate the relative prevalence of traits of *Don't Look Up* viewers relative to non-viewers, we recruited a similar number of each (898 *DLU* viewers, 988 non-viewers).

Measures

This phase included the same demographic, viewership, and climate action mental states (both general and film-tailored) as found in Phase A. In addition, we also captured measures of viewers' response to the film.

Methods appendix

Analysis methods

Viewer profile analysis

Data sources: Phase B, Number of *Don't Look Up* viewers in each country

The dataset was weighted based on the within country gender, age, and political orientation (as estimated by the World Values Survey), *Don't Look Up* viewership prevalence, and total country population. Means were then calculated comparing those who did watch *Don't Look Up* to those who did not across demographics, viewership habits, and climate mental states, weighted to represent country-level population size and within-country distributions of age, gender, *DLU* viewership, and political orientation. Means of *Don't Look Up* viewers were calculated for emotional response, likelihood of recommendation, and enjoyment with the same weighting applied.

Experimental analysis

Data source: Phase A

This dataset was weighted based on within country gender, age, political orientation, and total country population. To estimate the impact of *Don't Look Up* and *Don't Look Up* plus campaign content, we conducted regression analysis adjusting for baseline levels of the target variable to improve precision. As the film-tailored climate questions were only in the post survey, we did not have baseline to adjust for. We therefore substituted in adjusting for the baseline levels of the other climate mental states as well as other political and psychological baseline characteristics to improve precision. We used these regressions to estimate the impact of both *Don't Look Up* alone and *Don't Look Up* plus the marketing video relative to viewing neutral control films.

Transportation analysis

Data sources: Phase A and Phase B

Transportation analysis was conducted using the Generalize package in R ([Ackerman et al., 2019](#)) using propensity score weighting. This analysis starts by estimating the degree to which each participant in the experimental results corresponds to the population who naturally viewed the film on a variety of characteristics estimated in the weighted analysis of our Phase B survey (in this case, corresponding on age, gender, country, viewership habits, and political orientation). By then weighting responses based on the inverse odds of trial participation, we are able to estimate the impact of the film on the kind of people who naturally chose to watch it. In addition, we applied this same logic to the film plus campaign content in order to estimate the hypothetical impact of if those who watched the film had also seen the marketing video.