From:	Nikki Forrester
To:	Sriver, Ryan
Subject:	[Climate Feedback] Evaluating Michael Shellenberger's article on Climate Change Apology
Date:	Wednesday, July 1, 2020 12:51:27 PM

Hello Dr. Sriver,

Various media outlets including Zero Hed=e, Breitbart, PJ Media, The A=stralian, Quillette and Forbes published an article by Michael Shellenberg=r who is promoting a new book, which have been shared widely on Facebook. =orbes has since unpublished the article. In the article, Schellenberger ap=logizes for the "climate scare" and outlines a series of c=aims about climate change. We'd like to evaluate the scientific credibilit= of the claims and the overall article. A few of the primary statements ar=:

- "Humans are not ca=sing a "sixth mass extinction""

  "Climate c=ange is not making natural disasters worse"

- =p dir="ltr" style="line-height:1.38;margin-top:0pt;margin-bottom:0pt">=span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">"Fires have de=lined 25% around the world since 2003"

- "Carbon emissions a=e declining in most rich nations and have been declining in Britain, Germa=y, and France since the mid-1970s"

- "Wood fuel is far worse=for people and wildlife than fossil fuels"
  - =p dir="ltr" style="line-height:1.38;margin-top:0pt;margin-bottom:0pt">=span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">"The build-up =f wood fuel and more houses near forests, not climate change, explain why =here are more, and more dangerous, fires in Australia and California=9D

- "The most important thing for reducing air pollution and carbon=emissions is moving from wood to coal to petroleum to natural gas to urani=m."

The =rticle also includes a lot of opinionated assertions, so we should strive =o stick to the verifiable parts. =f you have time by the **end of the day on Friday, July 3** and would like to contribute, you can rate the article's overa=l credibility via this form. Please feel free

to address any or all claims relevant to your ex=ertise. You can annotate the article at this link, or by a=ding the Hypothesis Chrome extension here. (Or you can always just email me comments related to specif=c statements in the article.)

Thanks for looking!

Nikki

--
Nikki Forrester, PhD
Science Editor, Cli=ate and Ecology
Science Feedback

From: Science Feedback
To: Sriver, Ryan
Subject: [Science Feedback] Newsletter: Highlights of 2020 and first impact in 2021
Date: Friday, January 22, 2021 1:24:02 PM

UPDATES

2020 was a busy year for us. The health team=focused heavily on fact-checking viral claims about the COVID-19 pandemic,=while the climate team reviewed claims about wildfires and the human-cause= drivers of climate change. Together, our reviews received **9.7 mil=ion page views** in 2020.

Science Feedback began a partnership with Facebook in April 2019 to identif= false or misleading claims. When content is identified as false or mislea=ing, feedback is provided to all users who have shared it, or are about to=do so. You can see an example of inaccurate content flagged **here**.

Science Feedback also began a partnership with TikTok, a video-sharing soci=l networking service, in the spring of 2020 to verify viral claims on the =ite.

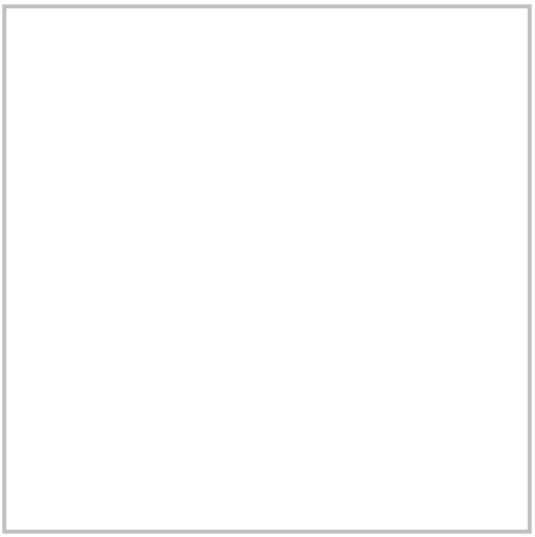
We welcomed several new members to th= team: Ecologist Nikki Forrester, immunologist Pablo Rougerie, and neu=oscientist Iria Carballo-Carbajal joined the editorial team. Full stack de=eloper Quan Trinh also joined the tech team.

We're hiring! We're looking for a full-time and=several freelance science editors to join our team in 2021. Read the job d=scription **here**. Please share the=news on **Twitter**, Linkedin.

CORRECTIONS

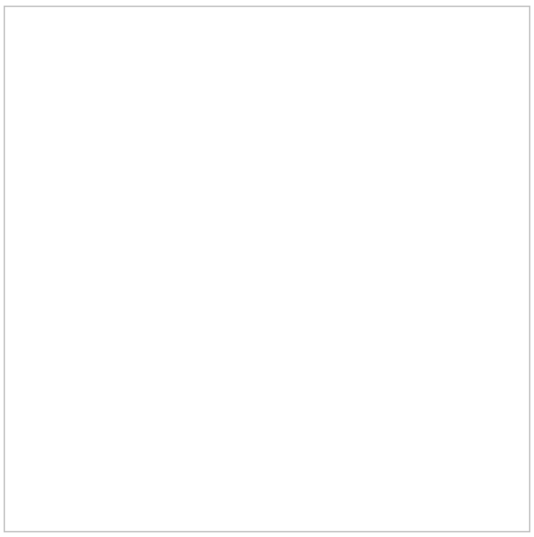
Several of our reviews prompted corrections. Th= latest by The Daily Mail (see the difference before/after corrections on the web archive):

Latest Reviews - CLIMATE



Video interview of Ian Plimer at Sky New= falsely claims that a new study announces an incoming ice age, partly bas=d on an incorrect Daily Mail headline

Ian Hall, Cardiff University: “Our paper is unambiguous and not rel=vant for modern/future climate change in this way, and reporting it as so =s fundamentally misinterpreting our findings." **READ MORE**



Rates of global sea level rise have acce=erated since 1900, contrary to bloggers’ claims

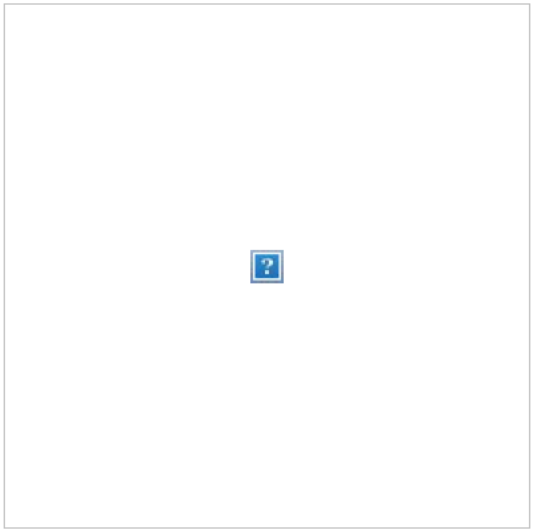
Thomas Frederikse, Jet Propulsion Laboratory/California Institute of Techno=ogy: “This text cherry-picks two trend estimates of global sea lev=ls (one number from 1900-2018 and one number from 1958-2014) to ‘s=ow’ there’s no acceleration in global sea level since 1900= That is false.” =strong>READ MORE

Latest reviews - HEALTH

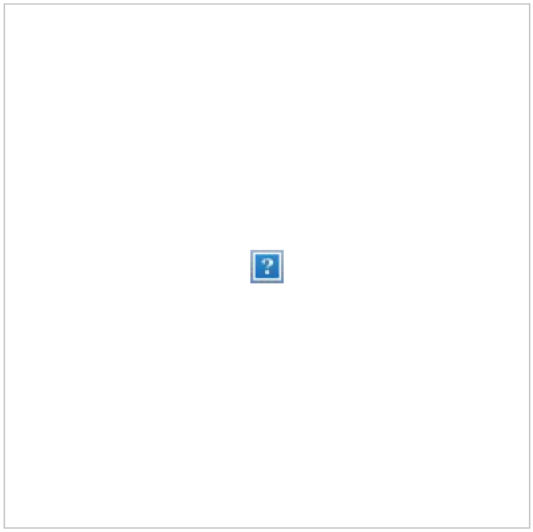
Too early for conclusions on long-term C=VID-19 immunity, but some findings suggest that immune memory against the =irus lasts

for up to eight months and possibly longer

Some studies reported encouraging findings showing that immune memory may e=dure for at least several months and possibly longer. But at the moment, i= is too early to make firm conclusions about how long COVID-19 immunity la=ts. **READ MORE**



The CDC reports more than 2.9 million de=ths in the U.S. in 2020; there were

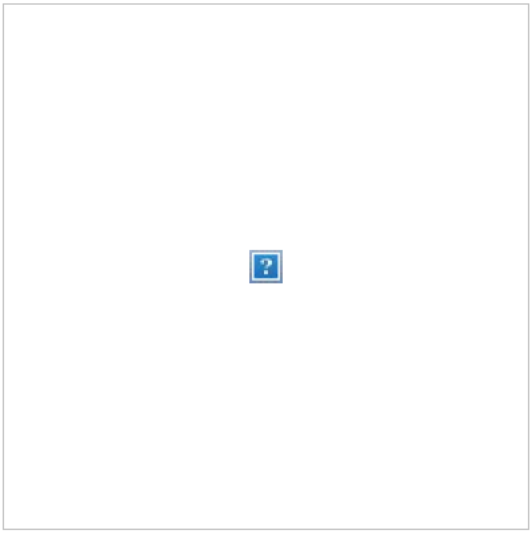


Strong evidence lacking to support claim=that ivermectin is a cure for

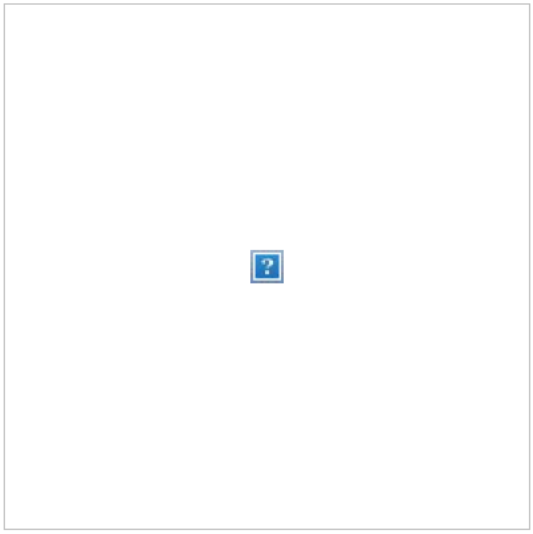
at least 377,000 more deaths in 2020 c=mpared to previous years
The COVID-19 pandemic led to more deaths in the U.S. than usual in 2020. It=is important to keep in mind that reports of death counts experience a tim= lag, hence the current death count for 2020 is incomplete and will likely=grow as records are completed. **READ MORE**

COVID-19; there are only limited clinical re=ults at this stage
The gold standard for clinical studies is the randomized, controlled, doubl=-blind trial, which involves a large number of patients in multiple hospit=ls. While some clinical data suggests that ivermectin has an antiviral eff=ct against the virus that causes COVID-19, clinical trials replicating thi= result are still lacking. **READ MORE=/a>**

Most Read Articles and Claim Revie=s in 2020 – HEALTH

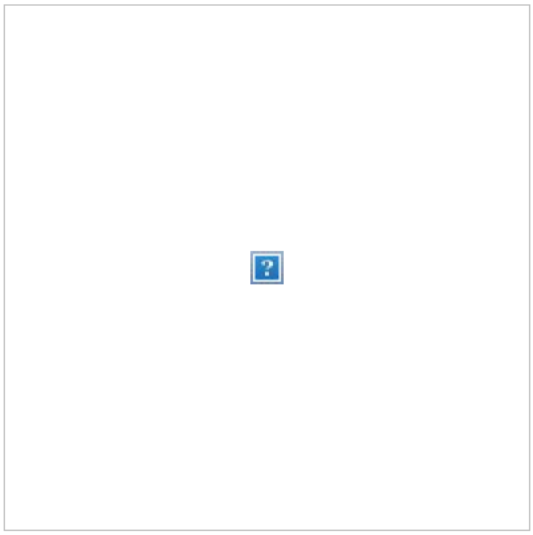


False c=aim shared by President Trump that only 6% of CDC-reported deaths are from=COVID-19 is based on flawed reasoning (353,000 reads)
Cause of death is defined as a medical condition that triggers a chain of c=inical events that leads to the death of a patient. In contrast, comorbidi=ies are medical conditions, either pre-existing or resulting from the prim=ry medical condition, that weaken a patient's resistance to injuri=s or diseases and indirectly contribute to their death. Many patients who =ied from COVID-19 had comorbidities, suggesting that these conditions incr=ased their likelihood of death from COVID-19. For these patients, COVID-19=remains their



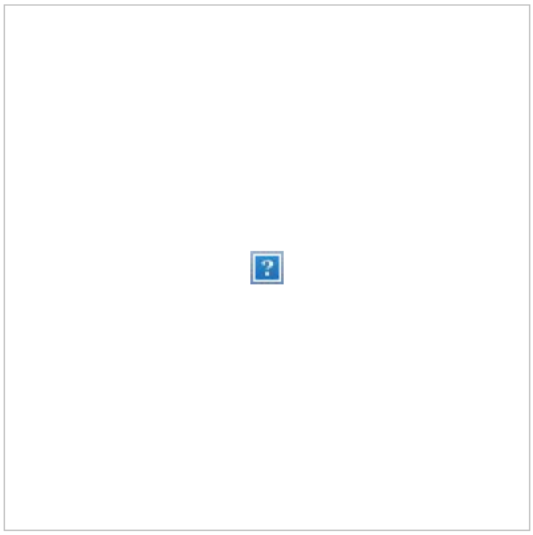
Wearing=face masks does not cause hypercapnia or affect the immune system Sofia Morra, Erasme University Hospital, Université Libre de Bruxelles= "It is unfortunate that these posts are not supported by rigorous=scientific evidence. Indeed, wearing a surgical mask for short periods of =ime does not impact significantly physiological respiratory variables[2] a=d thus, whenever a rise in CO2 occurs in the "dead space" =f the mask, it is unlikely that the magnitude of this increase would be su=ficient to impair immune, neurological, or cardiovascular homeostasis.&#xfffd;=80&#xfffd; **READ MORE**

cause of death, as many would not have died from their comor=idities. READ MOR=



&#65533;=9CPlandemic" vignette featuring anti-vaccination activist Judy Mik=vits contains numerous false and unsupported claims about COVID-19 (258,000 reads)

The video has received millions of views in 2020, making unsupported claims=such as that the virus was engineered in a lab, released on purpose or tha= "Wearing the mask literally activates your own virus".&nb=p; READ MORE



Blog po=ts inaccurately claim that a 2005 NIH study demonstrated the effectiveness=of chloroquine treatment against coronavirus infection such as COVID-19 (210,000 reads)

The 2005 study cited in these articles was actually a Canada-funded study, =hich revealed an effect of chloroquine on SARS-CoV-1 infection in cell cul=ures. Although SARS-CoV-1 shares some similarities with the current SARS-C=V-2, an in vitro study of the former does not provide sufficient evidence =o conclude that it will effectively treat COVID-19. READ MORE

Most Read Articles and Claim Revie=s in 2020 – CLIMATE

Western=US wildfires are not the result of widespread arson (181,000 read=)
Recent wildfires on the West Coast have been ignited by a number of sources= including lightning, power lines, and even a smoke machine at a party. Th=ir severity is the result of strong winds and intense drought driven by a =ry summer and record warmth, which is part of an ongoing human-caused warm=ng trend. **READ MO=E**

Low sol=r activity has little effect on Earth's climate, contrary to claim=in The Sun (47,000 reads)
Although solar activity is currently in a quiet phase, this is typical of t=e 11-year cycle in the Sun's energy output. The effect of low sola= activity on the Earth's climate is small compared to global warmi=g caused by greenhouse gas emissions. **READ MORE**

Article=by Michael Shellenberger mixes accurate and inaccurate claims in support o= a misleading and overly simplistic argumentation about climate

Guardia= article on Arctic methane emissions claiming "a new climate feedb=ck loop may have been triggered" lacks important context

change (24,000 reads)
Zeke Hausfather, The Breakthrough Institute: "Shellenberger&#65533;=99s article promoting his new book "Apocalypse Never" incl=des a mix of accurate, misleading, and patently false statements. While it=is useful to push back against claims that climate change will lead to the=end of the world or human extinction, to do so by inaccurately downplaying=real climate risks is deeply problematic and counterproductive."&n=sp; READ MORE

=16,000 reads)
Frans-Jan W. Parmentier, Lund University & University of Oslo: &#65533;=9CThis article's claim that methane deposits in the Arctic Ocean a=e starting to be released, awakening a "sleeping giant", c=nnot be supported by the limited observational data. Besides, even if thes= newly found seeps are increasing, they are located too deep in the ocean =o have a significant impact on the concentration of methane in the atmosph=re." **READ MORE**

IN THE NEWS IN 2020

Ne=sGuard's Top Ten Straight Shooters – NewsGuard Pleased to share that Health Feedback is listed among NewsGuard Technologie=' 2020 Unsung Heroes "*Just 15 percent of the U.S.-based sites reviewed by NewsGuard ear= a perfect score, meaning they meet all nine of NewsGuard's*

credib=lity and transparency criteria. These 10 sites are models in producing con=ent that is truthful, compelling, credible, and transparent."

[Th= 10 Best Fact Checking Websites for 2020](#) **=93 Media Bias/Fact Check Science Feedback was ranked as one of the ten best fact-checking websites f=r 2020 by Media Bias / Fact Check. The announcement said of Science Feedba=k: “This is by far the best fact checker for science related claim=.

[Ho= Facebook Handles Climate Disinformation](#) – The New York T=mes Sept. 14, 2020: “In August, that policy attracted attention when th= CO2 Coalition shared a Washington Examiner op-ed article that disputed th= accuracy of climate

change models. Climate Feedback labeled the post as =E2��false.”...According to Climate Feedback, the op-ed cherry-=icked facts and compiled them in a deliberately misleading manner. You can=read the full fact-check here.=E2��

Fa=ebook’s Preferential Treatment Of US Conservatives Puts Its Fact-C=ecking Program In Danger – Buzzfeed News

Vo=ers want Facebook to be accountable for climate misinformation, poll finds=/a> - The Verge

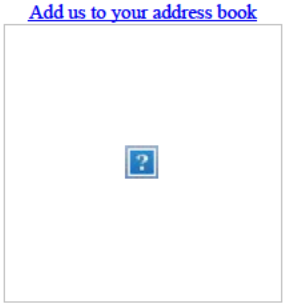
28 Jul 2020: “Last August, Science Feedback reviewed an article fro= the Washington Examiner op-ed that used inaccurate information and cherry=picked datasets to cast

doubt on the accuracy of climate change models. Sc=ence Feedback's experts determined that the article was "h=ghly misleading" and rated it as false. "Placing statement= that are verifiably false in an opinion section shouldn't grant i=munity from fact-checking," Scott Johnson, science editor of the o=ganization Science Feedback, told The New York Times."

A =ear Ago, An Israeli Research Group Said They Would Cure Cancer Within A Ye=r. Did They Do It? – **Forbes**

20 Jan 2020: "After the original, uncritical article in the Jerusal=m Post, other articles copying the unchecked information spread like wildf=re on social

media. As scientists, researchers, doctors, cancer organizati=ns and a handful of reputable journalists, including myself, scrambled to =ouse the flames, a runaway train of shares, posts and retweets created a m=shroom cloud of misinformation, perf=ctly analyzed here by HealthFeedback.org."



=

From:	Nikki Forrester
To:	Sriver, Ryan
Subject:	Checking in about Michael Shellenberger article review
Date:	Tuesday, July 21, 2020 9:24:31 AM

Dear Dr. Sriver,

Thank you again for analyzing =ichael Shellenberger's article, which was flagged as "Part=y False" for numerous media outlets on Facebook. I wanted to reach=out about a decision to remove a flag from the article published by The Da=ly Wire to see if this is a topic you would like to discuss. This decision=was recently covered in an <=pan style="font-family:Arial;background-color:transparent;font-variant-n=meric:normal;font-variant-east-asian:normal;text-decoration-line:underline=vertical-align:baseline;white-space:pre-wrap">article published by HEATED and Popular Info, which discus=es aspects of Facebook's fact-checking policies.

After our fact-check was published, The Dail= Wire amended their article to state that the article was "reviewe= by fact-checkers, some of whom have pushed back on some of its claims and=conclusions." In addition, the article included a link to the fact=check at the bottom of the article. Because the article is behind a paywal=, only users that pay for a premium account can access the link. The decis=on to remove the flag was made by Science Feedback based on the inclusion =f this statement and link to the fact-check, although we acknowledge this =s barely sufficient to inform readers about reality.

<= dir="ltr" style="line-height:1.38;margin-top:0pt;margin-bottom:0pt"><=pan style="font-family:Arial;color:rgb(0,0,0);background-color:transpare=t;font-variant-numeric:normal;font-variant-east-asian:normal;vertical-alig=:baseline;white-space:pre-wrap">Please let me know if you have any questio=s, concerns, or would like to discuss this decision in more detail. <=span>

Sincerely,

Nikki<=span>

--
N=kki Forrester, PhD
Science Editor, Climate and Ecology
Scien=e Feedback

From:	Chris May
To:	Sriver, Ryan
Subject:	Fact-checking climate claims, Shellenberger and Facebook
Date:	Thursday, July 16, 2020 7:09:11 PM

Good day Ryan,

My name is Chris May, I'm a research assistant with Emily Atkin's climate newsletter, HEATED. I'm reaching out because we're currently working on a story about the implications of a loophole in Facebook's fact-checking policy that classifies stories with claims about climate science as 'opinion' and exempts them from being vetted by third-party fact checkers.

I'm not sure how much attention you've received from journalists lately, but I wanted to reach out and ask about what kind of responses you've been receiving since the Climate Feedback article you were featured in was initially published.

Our current estimate is that Michael Shellenberger's recent article in one form or another has reached ~200,000 people on Facebook so far. We're still attempting to determine whether the decision to remove the fact-check label and links from Schellenberger's article came from Facebook or Scientific Feedback, but in either case I wanted to ask what you think the implications of the decision will be.

I'm looking at a deadline of EOB Friday for this story -- feel free to give me a call or let me know if you have any questions. Thanks in advance for your time and hope you're staying healthy and safe out there.

Cheers,
--
Chris May
[redacted]

From: Nikki Forrester
To: Sriver, Ryan
Subject: Re: [Climate Feedback] Evaluating Michael Shellenberger's article on Climate Change Apology
Date: Friday, July 3, 2020 11:00:28 AM

Dear Dr. Sriver,

Hope you're doing =ell. I just wanted to follow&nbs=;up to see if you would be willing to=comment on the scientific accuracy of this article by noon PT on Monday.

Thanks so much,
Nikki

On Wed, Jul 1,=2020 at 1:51 PM Nikki Forrester <nikki@sciencefeedback.co> wrote:

> Hello Dr. Sriver,
>
> Var=ous media outlets including Zero Hedge, Breitbart, PJ Media, The Australian, Quillette and Forbes published a= article by Michael Shellenberger who is promoting a new book, which have =een shared widely on Facebook. Forbes has since unpublished the article. I= the article, Schellenberger apologizes for the "climate scare=80 and outlines a series of claims about climate change. We'd like to e=aluate the scientific credibility of the claims and the overall article. A=few of the primary statements are:
>
> - "Humans are not causing a "sixth mass extinction=80"
> - "Climate change is not making natural disasters wor=e"
> - "Fires have declined 25% around the world since 2003=80
> - "Carbon emissions are declining in most rich nations and hav= been declining in Britain, Germany, and France since the mid-1970s=9D
> - "Wood fuel is far worse for people and wildlife than fossil fue=s"
> - "The build-up of wood fuel and more houses near forests= not climate change, explain why there are more, and more dangerous, fires=in Australia and California"

- “The most important thing fo= reducing air pollution and carbon emissions is moving from wood to coal t= petroleum to natural gas to uranium.”

The article also includes a lot of opinionat=d assertions, so we should strive to stick to the verifiable parts. If you have time by the end of the day on Friday, July 3 and would like to contribute, you c=n rate the article’s overall credibility via this form. Please feel free to address an= or all claims relevant to your expertise. You can annotate the article at=<=pan style="font-family:Arial;background-color:transparent;font-variant-n=meric:normal;font-variant-east-asian:normal;text-decoration-line:underline=vertical-align:baseline;white-space:pre-wrap">this link, or by adding the Hypothesis Chrome extensio= here. (Or you can always jus= email me comments related to specific statements in the article.)<=p>

Thanks for looking!

Nikki

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki For=ester, PhD
Science Editor, Climate and Ecology
Science Feedb=ck

From: Ryan Sriver
To: Nikki Forrester
Subject: Re: [Climate Feedback] Evaluating Michael Shellenberger's article on Climate Change Apology
Date: Monday, July 6, 2020 12:26:39 PM

Hi Nikki.

I completed the form you sent with a rating. = inserted my review from below and added a reference to the 4th national c=imate assessment:
https://nca2018.globalchange.gov

Hope this is helpful. Let =e know if you would like any other info.
Best,
<=iv class="">Ryan

=div class="">On Jul 6, 2020, at 8:23 AM, Nikki Forrester <nikki@sciencefeedback.co>= wrote:

Hi Ryan,

Thanks so much for your feedback. We really appreciate your h=lp! If possible, would you mind giving the article an overall rating via t=is form:
Thanks again=
Nikki

On Sun, Jul 5, 2020 at 1=37 PM Sriver, Ryan <=sriver@illinois.edu> wrote:

> Hi Nikki.
>
> A couple quick points about the shellenberger piece. =irst off, it is largely an opinion piece and many of the claims are unveri=iable or written in a way that is misleading, such as: • "Fires have declined 25% around the world since 20=3". What exactly does this mean, the number of fires, durati=n, area burned, etc.?
>
> Another such misleading claim is:
> "Climate change is not making natural disaste=s worse". Again, what natural disasters is the author referr=ng to with this blanket statement, and what time frame.. the last 5 years,=20 years, 100 years? The claim is vague and misleading in particular for climate and weather extremes. Temperature and precipitation extremes a=e getting worse with global warming leading to more severe and widespread =eatwaves and drought. This is well documented in the community asses=ments and observations. In addition, oceans are getting warmer and the atmosphere is wetter which, combined wit= global sea-level rise, is making the flooding and precipitation dam=ges from tropical cyclones and hurricanes more severe.
>
> Finally, there is essentially no mention of arguably the bi=gest risk of climate change: sea-level rise! The only statemen= I see is the claim:
> "Adapting to life below sea level made the Netherlands=rich not poor"

This statement acknowledges that sea-level rise is indeed h=ppening and that adaption will make nations better off economically. =Statements such as these are dangerous and misleading. Sea-level rise pose= a major threat to coastal communities with global socio-economic implications, and we are already seeing the neg=tive impacts in more frequency and severe flood events in the US. Th=se damages will only worsen as the polar ice sheets continue to melt, with=potentially catastrophic effects on coastal cities and ecosystems, real estate markets, insurance industries, =uman migration, and national security.

Hope this feedback is useful. Let me know if you woul= like any other info.

Best,
Ryan

> On Jul 4, 2020, at 10:35 AM, Nikki Forrester <nikki@scienc=feedback.co> wrote:
>
> Hi Ryan,
>
> Great! Thank you so much for your help.
>
> Best,
> Nikki
>
> On Fri, Jul 3, 2020 at 1:26 PM Sriver= Ryan <rsriver@illinois.edu> wrote:
> Hi Nikki.
> Thanks for the email and apologies for missing =he first one! I Am happy to provide comments... will try to get to t=is later today.
> Best
> Ryan
>
> > On Jul 3, 2020, at 11:00 AM, Nikki For=ester <nikki@sciencefeedback.co> wrote:
> >
> > Dear Dr. Sriver,
> >
> > Hope you're doing well. I just wanted to follow up to see if you w=uld be willing to comment on the scientific accuracy of this article by no=n PT on Monday.
> >
> > Thanks so much,
> > Nikki

On Wed, Jul 1, 2020 at 1:51 PM Nikki =orrester <nikki@sciencefeedback.co> wrote:

Hello Dr. Sriver,

Various media outlets including Zero Hedge, Breitbart, PJ Media, The Aus=ralian, Quillette and Forbes published an article by Michael Shellenberger who is promoting a new book,=which have been shared widely on Facebook. Forbes has since unpublished th= article. In the article, Schellenberger apologizes for the “clima=e scare” and outlines a series of claims about climate change. We'd like to evaluate the scientific credibility of =he claims and the overall article. A few of the primary statements are:

- “H=mans are not causing a “sixth mass extinction””
- “C=imate change is not making natural disasters worse”
- “F=res have declined 25% around the world since 2003”
- “C=rbon emissions are declining in most rich nations and have been declining in Britain, Germany, and France since the =id-1970s”
- “W=od fuel is far worse for people and wildlife than fossil fuels”
- “T=e build-up of wood fuel and more houses near forests, not climate change, explain why there are more, and more dangerou=, fires in Australia and California”
- “T=e most important thing for reducing air pollution and carbon emissions is moving from wood to coal to petroleum to natural g=s to uranium.”

The article also includes a lot of opinionated assertions,

so we should strive=to stick to the verifiable parts. If you have time by the **end of the day on Friday= July 3** and would like to contribute, you can rate the article's overall c=edibility via this form. Please feel free to addr=ss any or all claims relevant to your expertise. You can annotate the article at this link, or by adding the Hypothesis Chrome extension here. (Or you can always =ust email me comments related to specific statements in the article.)

Thanks for looking!

Nikki

--

Nikki Forrester, PhD
Science Editor, Climate and Ecology

Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki=Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

=

From: Nikki Forrester
To: Sriver, Ryan
Subject: Re: [Climate Feedback] Evaluating Michael Shellenberger's article on Climate Change Apology
Date: Monday, July 6, 2020 12:29:10 PM

Hi Ryan,

Thank you so so much! Your=feedback and rating is extremely helpful. I'll let you know if anything el=e pops up.

Thanks again!
Ni=ki

On Mon, Jul 6, 2020 at 1:26 PM Sriver, Ryan <rsriver@illinois.edu> wrote:

> Hi Nikki.
>
> I completed the form you sent with a rating. I inserted my revie= from below and added a reference to the 4th national climate assessment:<=div>
> https:/=nca2018.globalchange.gov
>
> Hope this is helpful. Let me know if you would like any other in=o.
> Best,
> Ryan

> On Jul 6, 2020, at 8:23 AM, Nikki Forrester <nikki@sciencefeedback.co> wr=te:
>
> Hi Ryan,
>
> Thanks so much for your feedback. We really appreciate your help!=If possible, would you mind giving the article an overall rating via this =orm: https://airtable.com/shr15lu2lWXJ2ELO1 Also, do you happen to have a few references you could provide to support y=ur comments?
>
> Thanks again!
> Nikki
>
> On Sun, Jul 5, 2020 at 1:37 PM Sriver= Ryan <rsrive=@illinois.edu> wrote:
>
> > Hi Nikki.
> >
> > A couple quick points about the shellenberger piece. First off, =t is largely an opinion piece and many of the claims are unverifiable or w=itten in a way that is misleading, such as: • "Fires have declined 25% around the world since 20=3". What exactly does this mean, the number of fires, durati=n, area burned, etc.?
> >
> > Another such misleading claim is:

“Climate change is not making natural disasters worse=80. Again, what natural disasters is the author referring to with=this blanket statement, and what time frame.. the last 5 years, 20 years, =00 years? The claim is vague and misleading in particular for climate and weather extremes. Temperature and precipitation extremes a=e getting worse with global warming leading to more severe and widespread =eatwaves and drought. This is well documented in the community asses=ments and observations. In addition, oceans are getting warmer and the atmosphere is wetter which, combined wit= global sea-level rise, is making the flooding and precipitation dam=ges from tropical cyclones and hurricanes more severe.

Finally, there is essentially no mention of arguably the biggest risk =f climate change: sea-level rise! The only statement I see is =he claim:
"Adapting to life below sea level made the Netherlands rich not p=or”
This statement acknowledges that sea-level rise is indeed happening an= that adaption will make nations better off economically. Statements=such as these are dangerous and misleading. Sea-level rise poses a major t=reat to coastal communities with global socio-economic implications, and we are already seeing the neg=tive impacts in more frequency and severe flood events in the US. Th=se damages will only worsen as the polar ice sheets continue to melt, with=potentially catastrophic effects on coastal cities and ecosystems, real estate markets, insurance industries, =uman migration, and national security.

Hope this feedback is useful. Let me know if you would like any =ther info.

Best,
Ryan

> On Jul 4, 2020, at 10:35 AM, Nikki Forrester <nikki@sciencefeedback.co> w=ote:
>
> Hi Ryan,
>
> Great! Thank you so much for your help.
>
> Best,
> Nikki
>
> On Fri, Jul 3, 2020 at 1:26 PM Sriver= Ryan <rsrive=@illinois.edu> wrote:
>> Hi Nikki.
>> Thanks for the email and apologies for missing the first o=e! I
>> Am happy to provide comments... will try to get to this later
>> t=day.

Best
Ryan

On Jul 3, 2020, at 11:00 AM, Nikki Forrester <=a href="mailto:nikki@sciencefeedback.co" target="_blank">nikki@science=eedback.co> wrote:

Dear Dr. Sriver,

Hope you're doing well. I just wanted to follow=nbsp;up to see if you would be willing to comment on the=scientific accuracy of this article by noon PT on Monday.

Thanks so much,
Nikki

On Wed, Jul 1, 2020 at 1:51 PM Nikki =orrester <> wrote:

Hello Dr. Sriver,

Various media outlets including Zero Hedge, Breitbart, PJ Media, The Australian, Qu=llette and Forbes published an article by Michael Shellenberger who is promoting a new book, which hav= been shared widely on Facebook. Forbes has since unpublished the article.=In the article, Schellenberger apologizes for the “climate scare=E2�� and outlines a series of claims about climate change. We'd like to evaluate the scientific credibility of the claims and=the overall article. A few of the primary statements are:

- “Humans are not causing = “sixth mass extinction””
- “Climate change is not m=king natural disasters worse”

- “Fires have declined 25%=around the world since 2003”
- “Carbon emissions are de=lining in most rich nations and have been declining in Britain, Germany, and France since the mid-1970=”
- “Wood fuel is far worse =or people and wildlife than fossil fuels”
- “The build-up of wood fu=l and more houses near forests, not climate change, explain why there are more, and more dangerous, fires =n Australia and California”
- “The most important thin= for reducing air pollution and carbon emissions is moving from wood to coal to petroleum to natural g=s to uranium.”

The article also includes a lot of opinionated assertions, so we should strive to stic= to the verifiable parts. If you have time by the **end of the day on Friday, July 3 and would like to contribute, you can rate the article’s overall c=edibility via this form. Please feel free to address any or =ll claims relevant to your expertise. You can annotate the article at this link, or by adding the Hypothesis . (Or you can always just email =e comments related to specific statements in the article.)**

Thanks for looking!
Nikki

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki For=ester, PhD
Science Editor, Climate and Ecology
Science Feedb=ck

From: Nikki Forrester
To: Sriver, Ryan
Subject: Re: [Climate Feedback] Evaluating Michael Shellenberger's article on Climate Change Apology
Date: Tuesday, July 7, 2020 11:55:30 AM

Hi Ryan,

Thanks ag=in for your feedback! We are pleased to inform you that the article =eview has been published. Please let me know if you have any quest=ons or feedback.

Best,
Nikki=/div>

On Mon, Jul 6, 2020 at 1:28 PM Nikki Forrester <nikki@sciencefeedback.co> wrote:
=/div>
Hi=Ryan,

Thank you so so much! Your feedback and rat=ng is extremely helpful. I'll let you know if anything else pops up. =/div>

Thanks again!
Nikki

On Mon, Jul 6, 2020 at 1:26 PM Sriver, Ryan <rsriver@illinois.edu> wrote:
Hi Nikki.

I completed the form you sent with a rating. I inserted my revie= from below and added a reference to the 4th national climate assessment:<=div>
https:/=nca2018.globalchange.gov

Hope this is helpful. Let me know if you would like any other in=o.
Best,
Ryan

On Jul 6, 2020, at 8:23 AM, Nikki Forrester <nikki@sciencefeedback.co> wr=te:

Hi Ryan,

Thanks so much for your feedback. We really appreciate your help!=If possible, would you mind giving the article an overall rating via this =orm: https://airtable.com/shr15lu2lWXJ2ELO1 Also, do you happen to have a few references you could provide to support y=ur comments?

Thanks again!
Nikki

On Sun, Jul 5, 2020 at 1:37 PM Sriver= Ryan <rsrive=@illinois.edu> wrote:

Hi Nikki.

A couple quick points about the shellenberger piece. First off, =t is largely an opinion piece and many of the claims are unverifiable or w=itten in a way that is misleading, such as: • “Fires have declined 25% around the world since 20=3”. What exactly does this mean, the number of fires, durati=n, area burned, etc.?

Another such misleading claim is:
“Climate change is not making natural disasters worse=80. Again, what natural disasters is the author referring to with=this blanket statement, and what time frame.. the last 5 years, 20 years, =00 years? The claim is vague and misleading in particular for climate and weather extremes. Temperature and precipitation extremes a=e getting worse with global warming leading to more severe and widespread =eatwaves and drought. This is well documented in the community asses=ments and observations. In addition, oceans are getting warmer and the atmosphere is wetter which, combined wit= global sea-level rise, is making the flooding and precipitation dam=ges from tropical cyclones and hurricanes more severe.

Finally, there is essentially no mention of arguably the biggest risk =f climate change: sea-level rise! The only statement I see is =he claim: "Adapting to life below sea level made the Netherlands rich not p=or” This statement acknowledges that sea-level rise is indeed happening an= that adaption will make nations better off economically. Statements=such as these are dangerous and misleading. Sea-level rise poses a major t=reat to coastal communities with global socio-economic implications, and we are already seeing the neg=tive impacts in more frequency and severe flood events in the US. Th=se damages will only worsen as the polar ice sheets continue to melt, with=potentially catastrophic effects on coastal cities and ecosystems, real estate markets, insurance industries, =uman migration, and national security.

Hope this feedback is useful. Let me know if you would like any =ther info.

Best,
Ryan

> On Jul 4, 2020, at 10:35 AM, Nikki Forrester <nikki@sciencefeedback.co> w=ote:
>
> Hi Ryan,
>
> Great! Thank you so much for your help.

Best,
Nikki

On Fri, Jul 3, 2020 at 1:26 PM Sriver= Ryan <rsrive=@illinois.edu> wrote:

Hi Nikki.
Thanks for the email and apologies for missing the first o=e!
I Am happy to provide comments... will try to get to this later t=day.
Best
Ryan

> On Jul 3, 2020, at 11:00 AM, Nikki Forrester <=a href="mailto:nikki@sciencefeedback.co" target="_blank">nikki@science=eedback.co> wrote:
>
> Dear Dr. Sriver,
>
> Hope you're doing well. I just
> wanted to follow=nbsp;up to see if you would be
> willing to comment on the=scientific accuracy of
> this article by noon PT on Monday.
>
> Thanks so much,
> Nikki
>
> On Wed, Jul 1, 2020 at 1:51 PM Nikki =orrester <> wrote:
>
> Hello Dr. Sriver,
>
> Various media outlets including Zero Hedge, Breitbart, PJ Media, The Australian, Qu=llette and Forbes published an article by Michael Shellenberger who is promoting a new book, which hav= been shared widely on Facebook. Forbes has since unpublished the article.=In the article, Schellenberger apologizes for the “climate scare=E2�� and outlines a series of claims about climate change. We'd like to evaluate the scientific credibility of the claims and=the overall article. A few of the

primary statements are:

- “Humans are not causing = “sixth mass extinction””
- “Climate change is not m=king natural disasters worse”
- “Fires have declined 25%=around the world since 2003”
- “Carbon emissions are de=lining in most rich nations and have been declining in Britain, Germany, and France since the mid-1970=”
- “Wood fuel is far worse =or people and wildlife than fossil fuels”
- “The build-up of wood fu=l and more houses near forests, not climate change, explain why there are more, and more dangerous, fires =n Australia and California”
- “The most important thin= for reducing air pollution and carbon emissions is moving from wood to coal to petroleum to natural g=s to uranium.”

The article also includes a lot of opinionated assertions, so we should strive to stic= to the verifiable parts. If you have time by the **end of the day on Friday, July 3 and would like to contribute, you can rate the article’s overall c=edibility via this form.**

Please feel free to address any or =ll claims relevant to your expertise. You can annotate the article at this link, or by adding the Hypothesis . (Or you can always just email =e comments related to specific statements in the article.)

Thanks for looking!
Nikki

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki For=ester, PhD
Science Editor, Climate and Ecology
Science Feedb=ck

From: Nikki Forrester
To: Sriver, Ryan
Subject: Re: [Climate Feedback] Evaluating Michael Shellenberger's article on Climate Change Apology
Date: Friday, July 3, 2020 11:00:28 AM

Dear Dr. Sriver,

Hope you're doing =ell. I just wanted to follow&nbs=;up to see if you would be willing to=comment on the scientific accuracy of this article by noon PT on Monday.

Thanks so much,
Nikki

On Wed, Jul 1,=2020 at 1:51 PM Nikki Forrester <nikki@sciencefeedback.co> wrote:

> Hello Dr. Sriver,
>
> Var=ous media outlets including Zero Hedge, Breitbart, PJ Media, The Australian, Quillette and Forbes published a= article by Michael Shellenberger who is promoting a new book, which have =een shared widely on Facebook. Forbes has since unpublished the article. I= the article, Schellenberger apologizes for the "climate scare=80 and outlines a series of claims about climate change. We'd like to e=aluate the scientific credibility of the claims and the overall article. A=few of the primary statements are:
>
> - "Humans are not causing a "sixth mass extinction=80"
> - "Climate change is not making natural disasters wor=e"
> - "Fires have declined 25% around the world since 2003=80
> - "Carbon emissions are declining in most rich nations and hav= been declining in Britain, Germany, and France since the mid-1970s=9D
> - "Wood fuel is far worse for people and wildlife than fossil fue=s"
> - "The build-up of wood fuel and more houses near forests= not climate change, explain why there are more, and more dangerous, fires=in Australia and California"

- “The most important thing fo= reducing air pollution and carbon emissions is moving from wood to coal t= petroleum to natural gas to uranium.”

The article also includes a lot of opinionat=d assertions, so we should strive to stick to the verifiable parts. If you have time by the end of the day on Friday, July 3 and would like to contribute, you c=n rate the article’s overall credibility via this form. Please feel free to address an= or all claims relevant to your expertise. You can annotate the article at=<=pan style="font-family:Arial;background-color:transparent;font-variant-n=meric:normal;font-variant-east-asian:normal;text-decoration-line:underline=vertical-align:baseline;white-space:pre-wrap">this link, or by adding the Hypothesis Chrome extensio= here. (Or you can always jus= email me comments related to specific statements in the article.)<=p>

Thanks for looking!

Nikki

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki For=ester, PhD
Science Editor, Climate and Ecology
Science Feedb=ck

From:	Ryan Sriver
To:	Nikki Forrester
Subject:	Re: [Climate Feedback] Evaluating Michael Shellenberger's article on Climate Change Apology
Date:	Sunday, July 5, 2020 12:37:34 PM

Hi Nikki.

A couple quick points about the shellenberger piece= First off, it is largely an opinion piece and many of the claims ar= unverifiable or written in a way that is misleading, such as: • =80Fires have declined 25% around the world since 2003". W=at exactly does this mean, the number of fires, duration, area burned, etc=?

Another such m=sleading claim is:
"Climate change is n=t making natural disasters worse". Again, what natural disas=ers is the author referring to with this blanket statement, and what time =rame.. the last 5 years, 20 years, 100 years? The claim is vague and misle=ding in particular for climate and weather extremes. Temperature and preci=itation extremes are getting worse with global warming leading to more sev=re and widespread heatwaves and drought. This is well documented in =he community assessments and observations. In addition, oceans are g=tting warmer and the atmosphere is wetter which, combined with global sea-=evel rise, is making the flooding and precipitation damages from tro=ical cyclones and hurricanes more severe.

Finally, there is essentially no mention of arg=ably the biggest risk of climate change: sea-level rise! The o=ly statement I see is the claim:
&quo=;Adapting to life below sea level made the Netherlands rich not poor=9D
This statement acknowledges that sea-level r=se is indeed happening and that adaption will make nations better off econ=mically. Statements such as these are dangerous and misleading. Sea-=evel rise poses a major threat to coastal communities with global socio-ec=nomic implications, and we are already seeing the negative impacts in more=frequency and severe flood events in the US. These damages will only=worsen as the polar ice sheets continue to melt, with potentially catastro=hic effects on coastal cities and ecosystems, real estate markets, insuran=e industries, human migration, and national security.
Hope this feedback is useful. L=t me know if you would like any other info.

Best,
Ryan

> On Jul 4, 2020, at 10:35 AM, Nikki Forrester <nikki@sciencefeedback.co
> <=iv dir="ltr" class="">Hi Ryan,
>
> Great! Thank you so much for your help.
>
> Best,
> Nikki=/div>

On Fri, Jul 3, 2020 at 1:26 PM Sriver, Ryan <rsriver@illinois.edu> wrote=

Hi Nikki.
Thanks for the email and apologies for missing =he first one! I Am happy to provide comments... will try to get to t=is later today.
Best
Ryan

> On Jul 3, 2020, at 11:00 AM, Nikki For=ester <nikki@sciencefeedback.co> wrote:
>
> Dear Dr. Sriver,
>
> Hope you're doing well. I just wanted to follow up to see if you w=uld be willing to comment on the scientific accuracy of this article by no=n PT on Monday.
>
> Thanks so much,
> Nikki
>
> On Wed, Jul 1, 2020 at 1:51 PM Nikki =orrester <nikki@sciencefeedback.co> wrote:
> =ello Dr. Sriver,
>
> Various media outlets including Zero Hedge, Breitbart, PJ Me=ia, The Australian, Quillette and Forbes published an article by Michael Shellenberger who is promoting a new book,=which have been shared widely on Facebook. Forbes has since unpublished th= article. In the article, Schellenberger apologizes for the “clima=e scare” and outlines a series of claims about climate change. We'd like to evaluate the scientific credibility of =he claims and the overall article. A few of the primary statements are:
>
> - “Humans are not causing a “sixth mass extincti=n””
> - “Climate change is not making natural disasters w=rse”
> - “Fires have declined 25% around the world since 2=03”
> - “Carbon emissions are declining in most rich nati=ns and have been declining in Britain, Germany, and France since the mid-1970s=9D
> - “Wood fuel is far worse for people and wildlife t=an fossil fuels”
> - “The build-up of wood fuel and more houses near

f=rests, not climate change, explain why there are more, and more dangerous, fires in A=stralia and California”
- “The most important thing for reducing air pollut=on and carbon emissions is moving from wood to coal to petroleum to natural gas to urani=m.”

The article also includes a lot of opinionated assertions, so we should strive=to stick to the verifiable parts. If you have time by the end of the=day on Friday, July 3 and would like to contribute, you can rate the article’s overall c=edibility via this form. Please feel =ree to address any or all claims relevant to your expertise. You can annotate the article at this link, or by adding the =ypothesis Chrome extension here. (Or you=can always just email me comments related to specific statements in the article.)

Thanks for looking!
Nikki

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki=Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

=

From: Nikki Forrester
To: Sriver, Ryan
Subject: Re: [Climate Feedback] Evaluating Michael Shellenberger's article on Climate Change Apology
Date: Saturday, July 4, 2020 10:35:27 AM

Hi Ryan,

Great! Thank you so much for you= help.

Best,
Nikki
On Fri, J=l 3, 2020 at 1:26 PM Sriver, Ryan <rsriver@illinois.edu> wrote:

> Hi Nikki.
> Thanks for the email and apologies for missing the first o=e! I Am happy to provide comments... will try to get to this later t=day.
> Best
> Ryan
>
> On Jul 3, 2020, at 11:00 AM, Nikki Forrester <=a href="mailto:nikki@sciencefeedback.co" target="_blank">nikki@science=eedback.co> wrote:
>
> Dear Dr. Sriver,
>
> Hope you're doing well. I just wanted to follow=nbsp;up to see if you would be willing to comment on the=scientific accuracy of this article by noon PT on Monday.
>
> Thanks so much,
> Nikki
>
> On Wed, Jul 1, 2020 at 1:51 PM Nikki =orrester <> wrote:
> =span style="font-family:Arial;color:rgb(0,0,0);background-color:transpar=nt;font-variant-numeric:normal;font-variant-east-asian:normal;vertical-ali=n:baseline;white-space:pre-wrap">Hello Dr. Sriver,
>
> =span style="font-family:Arial;color:rgb(0,0,0);background-color:transpar=nt;font-variant-numeric:normal;font-variant-east-asian:normal;vertical-ali=n:baseline;white-space:pre-wrap">Various media outlets including Zero Hedge, Breitbart, PJ Media, T=e Australian, Quillette and Forbes published an article by Michael Shellenberger who is promoting a new book,=which have been shared widely on Facebook. Forbes has since unpublished th= article. In the article, Schellenberger apologizes for the "clima=e scare" and outlines a

series of claims about climate change. We'd like to evaluate the scientific credibility of =he claims and the overall article. A few of the primary statements are:

- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“Humans are no= causing a “sixth mass extinction””
- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“Climate chang= is not making natural disasters worse”
- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“Fires have de=lined 25% around the world since 2003”
- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“Carbon emissi=ns are declining in most rich nations and have been declining in Britain, Germany, and France since the mid-1970s=9D
- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“Wood fuel is =ar worse for people and wildlife than fossil fuels”
- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“The build-up =f wood fuel and more houses near forests, not climate change, explain why there are more, and more dangerous, fires in A=stralia and California”
- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“The most impo=tant thing for reducing air pollution and carbon emissions is moving from wood to coal to petroleum to natural gas to urani=m.”

=span style="font-family:Arial;color:rgb(0,0,0);background-color:transpar=nt;font-variant-numeric:normal;font-variant-east-asian:normal;vertical-ali=n:baseline;white-space:pre-wrap">The article also includes a lot of opinionated assertions, so we should strive=to stick to the verifiable parts. If you have time by the end of the day on =riday, July 3 and would like to contribute, you can rate the article’s overall c=edibility via this form. Please feel free t= address any or all claims relevant to

your expertise. You can annotate the article at this link, or by adding the Hypoth=sis . (Or you can a=ways just email me comments related to specific statements in the article.)

=span style="font-family:Arial;color:rgb(0,0,0);background-color:transpar=nt;font-variant-numeric:normal;font-variant-east-asian:normal;vertical-ali=n:baseline;white-space:pre-wrap">Thanks for looking!
=span style="font-family:Arial;color:rgb(0,0,0);background-color:transpar=nt;font-variant-numeric:normal;font-variant-east-asian:normal;vertical-ali=n:baseline;white-space:pre-wrap">Nikki

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki For=ester, PhD
Science Editor, Climate and Ecology
Science Feedb=ck

From: Nikki Forrester
To: Sriver, Ryan
Subject: Re: [Climate Feedback] Evaluating Michael Shellenberger's article on Climate Change Apology
Date: Saturday, July 4, 2020 10:35:27 AM

Hi Ryan,

Great! Thank you so much for you= help.

Best,
Nikki
On Fri, J=l 3, 2020 at 1:26 PM Sriver, Ryan <rsriver@illinois.edu> wrote:

> Hi Nikki.
> Thanks for the email and apologies for missing the first o=e! I Am happy to provide comments... will try to get to this later t=day.
> Best
> Ryan
>
> On Jul 3, 2020, at 11:00 AM, Nikki Forrester <=a href="mailto:nikki@sciencefeedback.co" target="_blank">nikki@science=eedback.co> wrote:
>
> Dear Dr. Sriver,
>
> Hope you're doing well. I just wanted to follow=nbsp;up to see if you would be willing to comment on the=scientific accuracy of this article by noon PT on Monday.
>
> Thanks so much,
> Nikki
>
> On Wed, Jul 1, 2020 at 1:51 PM Nikki =orrester <> wrote:
> =span style="font-family:Arial;color:rgb(0,0,0);background-color:transpar=nt;font-variant-numeric:normal;font-variant-east-asian:normal;vertical-ali=n:baseline;white-space:pre-wrap">Hello Dr. Sriver,
>
> =span style="font-family:Arial;color:rgb(0,0,0);background-color:transpar=nt;font-variant-numeric:normal;font-variant-east-asian:normal;vertical-ali=n:baseline;white-space:pre-wrap">Various media outlets including Zero Hedge, Breitbart, PJ Media, T=e Australian, Quillette and Forbes published an article by Michael Shellenberger who is promoting a new book,=which have been shared widely on Facebook. Forbes has since unpublished th= article. In the article, Schellenberger apologizes for the "clima=e scare" and outlines a

series of claims about climate change. We'd like to evaluate the scientific credibility of =he claims and the overall article. A few of the primary statements are:

- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“Humans are no= causing a “sixth mass extinction””
- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“Climate chang= is not making natural disasters worse”
- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“Fires have de=lined 25% around the world since 2003”
- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“Carbon emissi=ns are declining in most rich nations and have been declining in Britain, Germany, and France since the mid-1970s=9D
- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“Wood fuel is =ar worse for people and wildlife than fossil fuels”
- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“The build-up =f wood fuel and more houses near forests, not climate change, explain why there are more, and more dangerous, fires in A=stralia and California”
- =span style="background-color:transparent;font-variant-numeric:normal;fon=-variant-east-asian:normal;vertical-align:baseline">“The most impo=tant thing for reducing air pollution and carbon emissions is moving from wood to coal to petroleum to natural gas to urani=m.”

=span style="font-family:Arial;color:rgb(0,0,0);background-color:transpar=nt;font-variant-numeric:normal;font-variant-east-asian:normal;vertical-ali=n:baseline;white-space:pre-wrap">The article also includes a lot of opinionated assertions, so we should strive=to stick to the verifiable parts. If you have time by the end of the day on =riday, July 3 and would like to contribute, you can rate the article’s overall c=edibility via this form. Please feel free t= address any or all claims relevant to

your expertise. You can annotate the article at this link, or by adding the Hypoth=sis . (Or you can a=ways just email me comments related to specific statements in the article.)

=span style="font-family:Arial;color:rgb(0,0,0);background-color:transpar=nt;font-variant-numeric:normal;font-variant-east-asian:normal;vertical-ali=n:baseline;white-space:pre-wrap">Thanks for looking!
=span style="font-family:Arial;color:rgb(0,0,0);background-color:transpar=nt;font-variant-numeric:normal;font-variant-east-asian:normal;vertical-ali=n:baseline;white-space:pre-wrap">Nikki

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki For=ester, PhD
Science Editor, Climate and Ecology
Science Feedb=ck

From: Nikki Forrester
To: Sriver, Ryan
Subject: Re: [Climate Feedback] Evaluating Michael Shellenberger's article on Climate Change Apology
Date: Monday, July 6, 2020 8:23:28 AM

Hi Ryan,

Thanks so much for your fee=back. We really appreciate your help! If possible, would you mind giving t=e article an overall rating via this form: https://airtable.com/shr15lu2lWXJ2ELO1 Al=o, do you happen to have a few references you could provide to suppor= your comments?

Thanks again!
Nikki

On Sun, Jul 5, 2020 at 1:37 PM Sriver, Ryan <rsriver@illinois.edu> wrote:

> Hi Nikki.
>
> A couple quick points about the shellenberger piece. First off, =t is largely an opinion piece and many of the claims are unverifiable or w=itten in a way that is misleading, such as: • "Fires have declined 25% around the world since 20=3". What exactly does this mean, the number of fires, durati=n, area burned, etc.?
>
> Another such misleading claim is:
> "Climate change is not making natural disasters worse=80. Again, what natural disasters is the author referring to with=this blanket statement, and what time frame.. the last 5 years, 20 years, =00 years? The claim is vague and misleading in particular for climate and weather extremes. Temperature and precipitation extremes a=e getting worse with global warming leading to more severe and widespread =eatwaves and drought. This is well documented in the community asses=ments and observations. In addition, oceans are getting warmer and the atmosphere is wetter which, combined wit= global sea-level rise, is making the flooding and precipitation dam=ges from tropical cyclones and hurricanes more severe.
>
> Finally, there is essentially no mention of arguably the biggest risk =f climate change: sea-level rise! The only statement I see is =he claim:
> "Adapting to life below sea level made the Netherlands rich not p=or"
> This statement acknowledges that sea-level rise is indeed happening an= that adaption will make nations better off economically. Statements=such as these are dangerous and misleading. Sea-level rise poses a major t=reat to coastal communities with global socio-economic implications, and we are already seeing the neg=tive impacts in more frequency and severe flood events in the US. Th=se damages will only worsen as the polar ice sheets continue to melt, with=potentially catastrophic effects on coastal cities and ecosystems, real estate markets, insurance industries, =uman migration, and national security.
>
> Hope this feedback is useful. Let me know if you would like any =ther info.
>
> Best,
> Ryan

On Jul 4, 2020, at 10:35 AM, Nikki Forrester <nikki@sciencefeedback.co> w=ote:

Hi Ryan,

Great! Thank you so much for your help.

Best,
Nikki

On Fri, Jul 3, 2020 at 1:26 PM Sriver= Ryan <rsrive=@illinois.edu> wrote:

Hi Nikki.
Thanks for the email and apologies for missing the first o=e! I Am happy to provide comments... will try to get to this later t=day.
Best
Ryan

> On Jul 3, 2020, at 11:00 AM, Nikki Forrester <=a href="mailto:nikki@sciencefeedback.co" target="_blank">nikki@science=eedback.co> wrote:
>
> Dear Dr. Sriver,
>
> Hope you're doing well. I just wanted to follow=nbsp;up to see if you would be willing to comment on the=scientific accuracy of this article by noon PT on Monday.
>
> Thanks so much,
> Nikki
>
> On Wed, Jul 1, 2020 at 1:51 PM Nikki =orrester <> wrote:
> Hello Dr. Sriver,
>
> Various media outlets including Zero Hedge, Breitbart, PJ Media, The Australian, Qu=llette and Forbes published an article by Michael Shellenberger who is promoting a new book,=which have been shared widely on Facebook. Forbes has since unpublished th= article. In the article, Schellenberger apologizes for the “clima=e scare” and outlines a series of claims about climate change. We'd

like to evaluate the scientific credibility of =he claims and the overall article. A few of the primary statements are:

- “Humans are not causing = “sixth mass extinction””
- “Climate change is not m=king natural disasters worse”
- “Fires have declined 25%=around the world since 2003”
- “Carbon emissions are de=lining in most rich nations and have been declining in Britain, Germany, and France since the =id-1970s”
- “Wood fuel is far worse =or people and wildlife than fossil fuels”
- “The build-up of wood fu=l and more houses near forests, not climate change, explain why there are more, and more dangerou=, fires in Australia and California”
- “The most important thin= for reducing air pollution and carbon emissions is moving from wood to coal to petroleum to natural g=s to uranium.”

The article also includes a lot of opinionated assertions, so we should strive=to stick to the verifiable parts. If you have time by the **end of the day on Friday, July 3 and would like to contribute, you can rate the article’s overall c=edibility via this form. Please feel free to address any or =ll claims relevant to your expertise. You can annotate the article at this link, or by adding the Hypothesis . (Or you can always just email =e comments related to specific statements in the article.)**

Thanks for looking!
Nikki

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki For=ester, PhD
Science Editor, Climate and Ecology
Science Feedb=ck

From: Sriver, Ryan
To: Nikki Forrester
Subject: Re: [Climate Feedback] Evaluating Michael Shellenberger's article on Climate Change Apology
Date: Friday, July 3, 2020 12:26:06 PM

Hi Nikki.
Thanks for the email and apologies for missing the first one! I Am happy to provide comments... will try to get to this later today.
Best
Ryan

> On Jul 3, 2020, at 11:00 AM, Nikki Forrester <nikki@sciencefeedback.co> wrote:
>
> Dear Dr. Sriver,
>
> Hope you're doing well. I just wanted to follow up to see if you would be willing to comment on the scientific accuracy of this article by noon PT on Monday.
>
> Thanks so much,
> Nikki
>
> On Wed, Jul 1, 2020 at 1:51 PM Nikki Forrester <nikki@sciencefeedback.co> wrote:
>
> > Hello Dr. Sriver,
> >
> > Various media outlets including Zero Hedge, Breitbart, PJ Media, The Australian, Quillette and Forbes published an article by Michael Shellenberger who is promoting a new book, which have been shared widely on Facebook. Forbes has since unpublished the article. In the article, Schellenberger apologizes for the "climate scare" and outlines a series of claims about climate change. We'd like to evaluate the scientific credibility of the claims and the overall article. A few of the primary statements are:
> >
> > - "Humans are not causing a "sixth mass extinction""
> > - "Climate change is not making natural disasters worse"
> > - "Fires have declined 25% around the world since 2003"

- “Carbon emissions are declining in most rich nations and have been declining in Britain, Germany, and France since the mid-1970s”
- “Wood fuel is far worse for people and wildlife than fossil fuels”
- “The build-up of wood fuel and more houses near forests, not climate change, explain why there are more, and more dangerous, fires in Australia and California”
- “The most important thing for reducing air pollution and carbon emissions is moving from wood to coal to petroleum to natural gas to uranium.”

The article also includes a lot of opinionated assertions, so we should strive to stick to the verifiable parts. If you have time by the **end of the day on Friday, July 3** and would like to contribute, you can rate the article’s overall credibility via this form. Please feel free to address any or all claims relevant to your expertise. You can annotate the article at this link, or by adding the Hypothesis Chrome extension here. (Or you can always just email me comments related to specific statements in the article.)

Thanks for looking!
Nikki

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

From: Ryan Sriver
To: Nikki Forrester
Subject: Re: Checking in about Michael Shellenberger article review
Date: Tuesday, July 21, 2020 5:56:55 PM

Hi Nikki.
Thanks for the update.= I was aware HEATED was putting together a story on this and was cont=cted by them beforehand for comment. The Daily Wire aspect of this i= concerning but not all that surprising given their audience. As I&n=sp;

> On Jul 21, 2020, at 9:24 AM, Nikk= Forrester <nikki@sciencefeedback.co> wrote:
>
> Dear Dr. Sriver,
>
> Thank you again for an=lyzing Michael Shellenberger's article, which was flagged as =80Partly False" for numerous media outlets on Facebook. I wante= to reach out about a decision to remove a flag from the article published=by The Daily Wire to see if this is a topic you would like to discuss. Thi= decision was recently covered in an article published =y HEATED and Popular Info, which discusses aspects of Facebook's f=ct-checking policies.
>
> After our fact-check was published, The Daily Wire am=nded their article to state that the article was "reviewed by fact=checkers, some of whom have pushed back on some of its claims and conclusi=ns." In addition, the article included a link to the fact-check at=the bottom of the article. Because the article is behind a paywall, only u=ers that pay for a premium account can access the link. The decision to re=ove the flag was made by Science Feedback based on the inclusion of this s=atement and link to the fact-check, although we acknowledge this is barely=sufficient to inform readers about reality.
>
> Please let me know if you=have any questions, concerns, or would like to discuss this decision in mo=e detail.
> Sincerely,
> Nikki
> --
> Nikki Forrester, Ph=
> Science Editor, Climate and Ecology
> S=ience Feedback

=

From: Nikki Forrester
To: Sriver, Ryan
Subject: Re: Checking in about Michael Shellenberger article review
Date: Wednesday, July 22, 2020 9:23:35 AM

Hi Ryan,

Thanks so much for sharing =our perspective. We are doing our best in our conversations with Facebook =o explain that climate science and health science should be treated with t=e same standards and degree of urgency when it comes to misinformation. I'= not sure there's much more to discuss on our end and no need to prov=de additional feedback, we just wanted to let you know we're always open t= discussing this situation if that's of interest to you. Thanks again for =ll your help and support.

Best,=/div>
Nikki

On Tue, Jul 21, 2020 at 7:09 PM Sriver, Ryan <rsriver@illinois.edu> wrote:
=/div>

> Hi Nikki.
> Thanks for the update. I was aware HEATED was putting together a=story on this and was contacted by them beforehand for comment. The =aily Wire aspect of all this is concerning but not all that surprising giv=n their audience… and since the article is mainly a opinion piece with broad unsubstantiated claims. =Are you interested in discussing more or would you like any other feedback=
> Best,
> Ryan

> On Jul 21, 2020, at 9:24 AM, Nikki Forrester <nikki@sciencefeedback.co> w=ote:
>
> Dear Dr. Sriver,
>
> Thank you again for analyzing Michael Shellenberger's article, which was=flagged as "Partly False" for numerous media outlets on Fa=ebook. I wanted to reach out about a decision to remove a flag from the ar=icle published by The Daily Wire to see if this is a topic you would like to discuss. This decision was recently covered in an article published by HEATED and Popular Info, which discusses aspects of Facebook=E2��s fact-checking policies.
>
> After our fact-check was published, The Daily Wire amended their article to stat= that the article was "reviewed by fact-checkers, some of whom hav= pushed back on some of its claims and conclusions." In addition, =he article included a link to the fact-check at the bottom of the article. Because the article

is behind a paywall, only u=ers that pay for a premium account can access the link. The decision to re=ove the flag was made by Science Feedback based on the inclusion of this s=atement and link to the fact-check, although we acknowledge this is barely sufficient to inform readers about =eality.

Please let me know if you have any questions, concerns, or would like to discuss =his decision in more detail.

Sincerely,
Nikki

--
Nikki Forrester, PhD
Science Editor, Climate and Ecology
Science Feedback

--
Nikki For=ester, PhD
Science Editor, Climate and Ecology
Science Feedb=ck

From: Ryan Sriver
To: Nikki Forrester
Subject: Re: Checking in about Michael Shellenberger article review
Date: Tuesday, July 21, 2020 6:00:35 PM

Hi Nikki.
Thanks for th= update. I was aware HEATED was putting together a story on this and=was contacted by them beforehand for comment. The Daily Wire aspect =f all this is concerning but not all that surprising given their audience=E2�� and since the article is mainly a opinion piece with broad unsubs=antiated claims. Are you interested in discussing more or would you =ike any other feedback?
Best,
Ry=n

> O= Jul 21, 2020, at 9:24 AM, Nikki Forrester <nikki@sciencefeedback.co> wrote:
> Dear Dr. Sriver, =
>
> article published by HEATED and Popular Info, which discusses aspects of=Facebook's fact-checking policies.
>
> After our fact-check was publish=d, The Daily Wire amended their article to state that the article was "=80reviewed by fact-checkers, some of whom have pushed back on some of i=s claims and conclusions." In addition, the article included a lin= to the fact-check at the bottom of the article. Because the article is be=ind a paywall, only users that pay for a premium account can access the li=k. The decision to remove the flag was made by Science Feedback based on t=e inclusion of this statement and link to the fact-check, although we ackn=wledge this is barely sufficient to inform readers about reality.
>
> Ple=se let me know if you have any questions, concerns, or would like to discu=s this decision in more detail.
>
> Sincerely,
> Nikki
>
> --
> Nikki Forrester, PhD
> Science Editor, Climate and Ecolo=y
> Science Feedback

=

From: Ryan Sriver
To: Nikki Forrester
Subject: Re: Checking in about Michael Shellenberger article review
Date: Tuesday, July 21, 2020 6:00:35 PM

Hi Nikki.
Thanks for th= update. I was aware HEATED was putting together a story on this and=was contacted by them beforehand for comment. The Daily Wire aspect =f all this is concerning but not all that surprising given their audience=E2�� and since the article is mainly a opinion piece with broad unsubs=antiated claims. Are you interested in discussing more or would you =ike any other feedback?
Best,
Ry=n

> O= Jul 21, 2020, at 9:24 AM, Nikki Forrester <nikki@sciencefeedback.co> wrote:
> Dear Dr. Sriver, =
>
> article published by HEATED and Popular Info, which discusses aspects of=Facebook's fact-checking policies.
>
> After our fact-check was publish=d, The Daily Wire amended their article to state that the article was "=80reviewed by fact-checkers, some of whom have pushed back on some of i=s claims and conclusions." In addition, the article included a lin= to the fact-check at the bottom of the article. Because the article is be=ind a paywall, only users that pay for a premium account can access the li=k. The decision to remove the flag was made by Science Feedback based on t=e inclusion of this statement and link to the fact-check, although we ackn=wledge this is barely sufficient to inform readers about reality.
>
> Ple=se let me know if you have any questions, concerns, or would like to discu=s this decision in more detail.
>
> Sincerely,
> Nikki
>
> --
> Nikki Forrester, PhD
> Science Editor, Climate and Ecolo=y
> Science Feedback

=

From: Ryan Sriver
To: Chris May
Subject: Re: Fact-checking climate claims, Shellenberger and Facebook
Date: Thursday, July 16, 2020 11:16:10 PM

Hi =hris.
One more quick point: It's odd that =acebook views climate posts as opinion. Seems to me that any post =hat includes scientific claims should be subject to fact =hecking.
Best,
Ryan

On Jul 16, 2020, at 11:11 PM, Sriver, Ryan =lt;rsriver@illinois.edu> wrote:

Hi Chris.

Thanks for the email and link. =nbsp;Some responses below:

> On Jul 16, 2020, at 7:08 PM, Chris May <chris@heated.world>
> =rote:
>
> Good day Ryan,
>
> My name is Chris May, I'm a research assistant with Emily Atkin's climate newsletter, HEATED. I'm reaching out because we're =urrently working on a story about the implications of a loophole in Facebook's =act-checking policy that classifies stories with claims about climate science as 'opinion' =and exempts them from being vetted by third-party fact =heckers.
>
> I'm not sure how much attention you've received from journalists lately, but I wanted to reach out and ask about what kind of responses you've been receiving since the Climate Feedback article you were featured in was initially published.

I have received no =nquiries (besides yours) about the climate feedback article or the =hellenberger letter. Actually, I had not heard of it prior to =limate Feedback reaching out for comment.

Our current estimate is that Michael Shellenberger's recent article in one =form or another has reached ~200,000 people on Facebook so far. We're still attempting to determine whether the decision to remove the fact-check label and links from Schellenberger's article came from Facebook or Scientific Feedback, but in either case I wanted to ask what you think the implications of the decision will be.

It’s interesting that the =rticle has found an audience on Facebook. The article is =rimarily an op-ed with a list of unsubstantiated and generalized claims =nd grievances, with little scientific evidence to back up the claims. =nbsp;I have no strong opinion about fact-checking, except I guess =t’s hard to fact check statements that are vague and obfuscate =he science and impacts.

He also barely mentions sea-level rise, =hich as I noted in the climate feedback response, is arguably the =iggest (and most alarming) risk of global warming. If global =arming is not slowed/stopped, either by mitigation or engineering, =arth’s coasts will dramatically change in the coming decades =rom rising sea-levels. We are already seeing this in low lying =oastal areas such as the Florida Keys and historic flooding such as =enice Italy. Many major coastal cities lack the ability to adapt, =s well as coastal ecosystems, and the economic implications could be =atastrophic. The Netherlands might be managing flood risks now, =ut I wonder how resilient they are to another meter of sea-level rise, =r maybe two, in the next 50-100 years? What about other =ocations, like Venice Italy or New York City? How much would it =ost to defend these cities to increased flooding? These are tough =uestions to answer but represent real risks with major consequences =appening now and in the coming years.

Hope this info is helpful. I have =ime to chat by phone tomorrow if you would like more =eedback.

Best,
Ryan

Ryan L. Sriver
School =f Earth, Society and Environment
University of Illinois at Urbana-Champaign
webpage: https://atmos.illinois.edu/directory/profile/rsriver=/div>
google scholar: =a href="https://goo.gl/Hzq2HA" =lass="">https://goo.gl/Hzq2HA

> I'm looking at a =eadline of EOB Friday for this story -- feel free to give me a call or let me know if =ou have any questions. Thanks in advance for your time and hope you're staying =healthy and safe out there.
>
> Cheers,
> --
> Chris May
> [redacted]

=

From: Ryan Sriver
To: Chris May
Subject: Re: Fact-checking climate claims, Shellenberger and Facebook
Date: Thursday, July 16, 2020 11:11:06 PM

Hi Chris.

Thanks for the email and link. Some responses below=

> On=Jul 16, 2020, at 7:08 PM, Chris May <chris@heated.world> wrote:
>
> Good day Ryan,
>
> My name is Chris May, I'm a research =ssistant with Emily Atkin's climate newsletter, HEATED. I'm reaching out because we're cu=rently working on a story about the implications of
> I'm not sure how much attention you've received from journalists lately, but I wanted to reach out and ask about what kind of responses you've been receiving since the Climate Feedback article you were featured in was initially published.

I have received no inquiries (besides yours) about the climate =eedback article or the Shellenberger letter. Actually, I had not hea=d of it prior to Climate Feedback reaching out for comment.

> Our current estimate is that Michael Shellenberger's recent article in one form or another has reached ~200,000 people on Facebook so far. We're still attempting to determine whether the decision to remove the fact-check label and links from Schellenberger's article came from Facebook or Scientific Feedback, but in either case I wanted to ask what you think the implications of the decision will be.
> =div class="">

It's interesting that the article has found=an audience on Facebook. The article is primarily an op-ed with a li=t of unsubstantiated and generalized claims and grievances, with little sc=entific evidence to back up the claims. I have no strong opinion abo=t fact-checking, except I guess it's hard to fact check statements=that are vague and obfuscate the science and impacts.

He also barely mentions sea-level rise, which as I no=ed in the climate feedback response, is arguably the biggest (and most ala=ming) risk of global warming. If global warming is not slowed/stoppe=, either by mitigation or engineering, Earth's coasts will dramati=ally change in the coming decades from rising sea-levels. We are alr=ady seeing this in low lying coastal areas such as the Florida Keys and hi=toric flooding such as Venice Italy. Many major coastal cities lack =he ability to adapt, as well as coastal ecosystems, and the economic impli=ations could be catastrophic. The Netherlands might be managing floo= risks now, but I wonder how resilient they are to another meter of sea-le=el rise, or maybe two, in the next 50-100 years? What about other lo=ations, like Venice Italy or New York City? How much would it cost t= defend these cities to increased flooding? These are tough question= to answer but represent

real risks with major consequences happening now =nd in the coming years.

Hope this info=is helpful. I have time to chat by phone tomorrow if you would like =ore feedback.

Best,
Ryan

Ryan L. Sriver
Associate Professor
Department of Atmospheric Sciences
School of Earth, Society and Environment
University of Illinois at Urbana-Champaign
National Center for Supercomputing Applications
webpage: https://atmos.illinois.edu/directory/profile/=sriver
go=gle scholar: https://goo.gl/H=q2HA

> I'm looking at a deadli=e of EOB Friday for this story -- feel free to give me a call or let me know if you =ave any questions. Thanks in advance for your time and hope you're staying healthy and safe out there.
>
> Cheers,
> --
> Chris May
> [redacted]

=

From: Sriver, Ryan
To: Chris May
Subject: Re: Fact-checking climate claims, Shellenberger and Facebook
Date: Friday, July 17, 2020 1:24:01 PM

Hi Chris.
If the paper contains science claims, then it is my opinion it should be subject to fact checking. I guess posting it as opinion helps avoid such checking (or reverse labeling) though it is a bit disingenuous.
Best
Ryan

> On Jul 17, 2020, at 12:35 PM, Chris May <chris@heated.world> wrote:
>
> Hi Ryan,
>
> Appreciate the quick reply on short notice. As you were one of the scientists who originally fact-checked Shellenberger's article, there is one recent development I'd like to get your reaction on. The fact-check was removed from the article prior to it's wide circulation, and when we reached out to Science Feedback, they pointed to updates made by the original publishers as justification for the decision. As an example of what that means in practical terms for readers, The Daily Wire added a brief note that the article had been fact-checked and appended at the end of the article, hidden behind a paywall. How do you feel about that?
>
> On Thu, Jul 16, 2020 at 9:16 PM Sriver, Ryan <rsriver@illinois.edu> wrote:
>> Hi Chris.
>> One more quick point: It's odd that facebook views climate posts as opinion. Seems to me that any post that includes scientific claims should be subject to fact checking.
>> Best,
>> Ryan
>>
>> > On Jul 16, 2020, at 11:11 PM, Sriver, Ryan <rsriver@illinois.edu> wrote:
>> >
>> > Hi Chris.
>> >
>> > Thanks for the email and link. Some responses below:
>> >
>> > > On Jul 16, 2020, at 7:08 PM, Chris May <chris@heated.world> wrote:
>> > >
>> > > Good day Ryan,

> My name is Chris May, I'm a research assistant with Emily Atkin's climate newsletter, HEATED. I'm reaching out because we're currently working on a story about the implications of a loophole in Facebook's fact-checking policy that classifies stories with claims about climate science as 'opinion' and exempts them from being vetted by third-party fact checkers.
>
> I'm not sure how much attention you've received from journalists lately, but I wanted to reach out and ask about what kind of responses you've been receiving since the Climate Feedback article you were featured in was initially published.

I have received no inquiries (besides yours) about the climate feedback article or the Shellenberger letter. Actually, I had not heard of it prior to Climate Feedback reaching out for comment.

> Our current estimate is that Michael Shellenberger's recent article in one form or another has reached ~200,000 people on Facebook so far. We're still attempting to determine whether the decision to remove the fact-check label and links from Schellenberger's article came from Facebook or Scientific Feedback, but in either case I wanted to ask what you think the implications of the decision will be.

It's interesting that the article has found an audience on Facebook. The article is primarily an op-ed with a list of unsubstantiated and generalized claims and grievances, with little scientific evidence to back up the claims. I have no strong opinion about fact-checking, except I guess it's hard to fact check statements that are vague and obfuscate the science and impacts.

He also barely mentions sea-level rise, which as I noted in the climate feedback response, is arguably the biggest (and most alarming) risk of global warming. If global warming is not slowed/stopped, either by mitigation or engineering, Earth's coasts will dramatically change in the coming decades from rising sea-levels. We are already seeing this in low lying coastal areas such as the Florida Keys and historic flooding such as Venice Italy. Many major coastal cities lack the ability to adapt, as well as coastal ecosystems, and the economic implications could be catastrophic. The Netherlands might be managing flood risks now,

but I wonder how resilient they are to another meter of sea-level rise, or maybe two, in the next 50-100 years? What about other locations, like Venice Italy or New York City? How much would it cost to defend these cities to increased flooding? These are tough questions to answer but represent real risks with major consequences happening now and in the coming years.

Hope this info is helpful. I have time to chat by phone tomorrow if you would like more feedback.

Best,
Ryan

Ryan L. Sriver
Associate Professor
Department of Atmospheric Sciences
School of Earth, Society and Environment
University of Illinois at Urbana-Champaign
National Center for Supercomputing Applications
webpage: https://atmos.illinois.edu/directory/profile/rsriver
google scholar: https://goo.gl/Hzq2HA

> I'm looking at a deadline of EOB Friday for this story -
> - feel free to give me a call or let me know if you have
> any questions. Thanks in advance for your time and
> hope you're staying healthy and safe out there.
>
> Cheers,
> --
> Chris May
> [redacted]

From: Chris May
To: Sriver, Ryan
Subject: Re: Fact-checking climate claims, Shellenberger and Facebook
Date: Friday, July 17, 2020 12:35:42 PM

Hi Ryan,

Appreciate the qu=ck reply on short notice. As you were one of the scientists who originally fact-checked Shellenberger's article, there is one recent development I'd like to get your reaction on. The fact-check was removed from the article prior to it's wide circulation, and when we reached out to Science Feedback, they pointed to updates made by the original publishers as justification for the decision. As an example of what that means in practical terms for readers, The Daily Wire added a brief =ote that the article had been fact-checked and appended at the end of the =rticle, hidden behind a paywall. How do you feel about that?

On Thu, =ul 16, 2020 at 9:16 PM Sriver, Ryan <rsriver@illinois.edu> wrote:

> Hi Chris.
> One more quick point: It's odd that facebook views clima=e posts as opinion. Seems to me that any post that includes scientif=c claims should be subject to fact checking.
> Best,
> Ryan
>
> > On Jul 16, 2020, at 11:11 PM, Sriver, Ryan <rsriver@illinois.edu> wrote:
> > Hi Chris.
> >
> > Thanks for the email and link. Some responses below:
> >
> > > On Jul 16, 2020, at 7:08 PM, Chris May <chris@heated.world> wrote:
> > >
> > > Good day Ryan,
> > >
> > > My name is Chris May, I'm a research assistant with Emily Atkin's clim=te newsletter, HEATED. I'm reaching out because we're currently working on=a story about the implications of a loophole in Facebook's fact-checking policy that classifies stories w=th claims about climate science as 'opinion' and exempts them from being v=tted by third-party fact checkers.
> > >
> > > I'm not sure how much attention you've received from journalists latel=, but I wanted to reach out and ask about what kind of responses you've be=n receiving since the Climate Feedback article you were featured in was in=tially published.
> >
> > I have received no inquiries (besides yours) about the climate feedbac= article or the Shellenberger letter. Actually, I had not heard of i= prior to Climate

Feedback reaching out for comment.

> Our current estimate is that Michael Shellenberger's recent article in=one form or another has reached ~200,000 people on Facebook so far. We're =till attempting to determine whether the decision to remove the fact-check=label and links from Schellenberger's article came from Facebook or Scientific Feedback, but in either case I wa=ted to ask what you think the implications of the decision will be.

It's interesting that the article has found an audience on Fac=book. The article is primarily an op-ed with a list of unsubstantiat=d and generalized claims and grievances, with little scientific evidence t= back up the claims. I have no strong opinion about fact-checking, except I guess it's hard to fact chec= statements that are vague and obfuscate the science and impacts.

He also barely mentions sea-level rise, which as I noted in the climat= feedback response, is arguably the biggest (and most alarming) risk of gl=bal warming. If global warming is not slowed/stopped, either by miti=ation or engineering, Earth's coasts will dramatically change in the coming decades from rising sea-leve=s. We are already seeing this in low lying coastal areas such as the=Florida Keys and historic flooding such as Venice Italy. Many major =oastal cities lack the ability to adapt, as well as coastal ecosystems, and the economic implications could be cata=trophic. The Netherlands might be managing flood risks now, but I wo=der how resilient they are to another meter of sea-level rise, or maybe tw=, in the next 50-100 years? What about other locations, like Venice Italy or New York City? How much would =t cost to defend these cities to increased flooding? These are tough=questions to answer but represent real risks with major consequences happe=ing now and in the coming years.

Hope this info is helpful. I have time to chat by phone tomorrow=if you would like more feedback.

Best,
Ryan

Ryan L. Sriver
Associate Professor
Department of Atmospheric Sciences
School of Earth, Society and Environment
University of Illinois at Urbana-Champaign
National Center for Supercomputing Applications
webpage: https://atmos.illinois.edu/di=ectory/profile/rsriver
google scholar: https://goo.gl/Hzq2HA

I'm looking at a deadline of EOB Friday for this story -- feel free to=give me a call or let me know if you have any questions. Thanks in advance=for your time and hope you're staying healthy and safe out there.

Cheers,
--
Chris May
[redacted]