Collaborations between Skeptical Science and other groups to spread fact-based information

EGU 2025 - EOS1.1 - EGU25-1439

Bärbel Winkler – Skeptical Science







INTRODUCTION TO SKEPTICAL SCIENCE

- Skeptical Science (SkS) is a website and non-profit science education organization with international reach founded by John Cook in 2007.
- Main objective is to debunk misconceptions and misinformation about human-caused climate change
- Features a database that currently has more than 250 rebuttals based on peer-reviewed literature.
- > SkS has evolved from a one-person operation to a multinational team project and formal NGO.









COLLABORATIONS OVERVIEW















Columbia Law School | COLUMBIA CLIMATE SCHOOL SABIN CENTER FOR CLIMATE CHANGE LAW





Skeptical Science

KLIMAFAKTEN – 2011 and ongoing

Klimafakten

Started in November 2011 as our Germanlanguage partner website with 18 debunkings of climate myths, most as translations of our rebuttals



Collaborated on various publication announcements over the years



From some German rebuttals on Skeptical Science we simply link to the translation on Klimafakten to avoid double work.



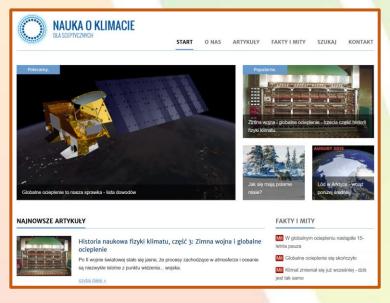






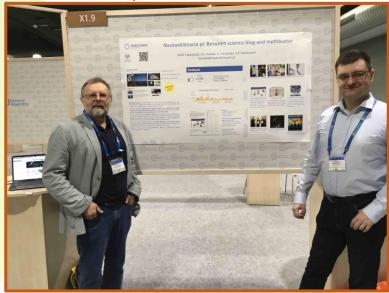
NAUKA O KLIMACIE – 2013 and ongoing

Started in 2013 as our Polish partner website, Nauka O Klimacie team members translated many of our rebuttals into Polish





Meeting Szymon Malowski (left) and Marcin Popkiewicz (right) next to their poster at EGU2018



Polish rebuttal translations on SkS link back to Nauka O Klimacie



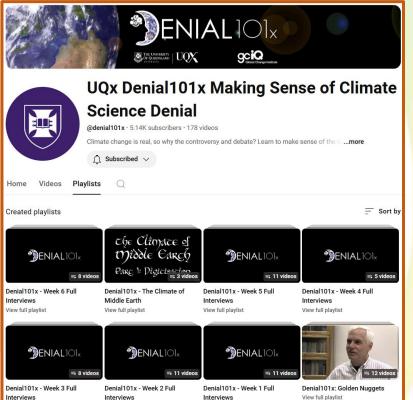






UQX / DENIAL101X - 2015 TO 2024

On April 28th, 2015 our collaboration with the University of Queensland (Uqx) kicked off with the Massive Open Online Course (MOOC) "Making Sense of Climate Science Denial."

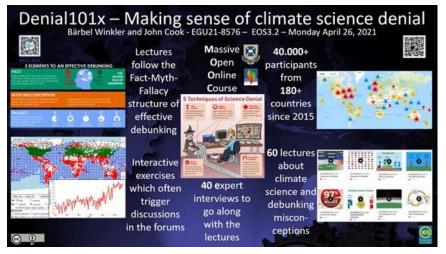




UQx provided the technical means to create Denial101x on the edX-platform. Many of the lecturers and all forum moderators were members of our SkS team.



At EGU2021 I had a PICO presentation about Denial101x with an interactive slide-deck



In April 2025 we had do announce that Denial101x will no longer be available as a MOOC

Our MOOC Denial101x has run its course

Skeptical Scie

Posted on 7 April 2025 by BaerbelW

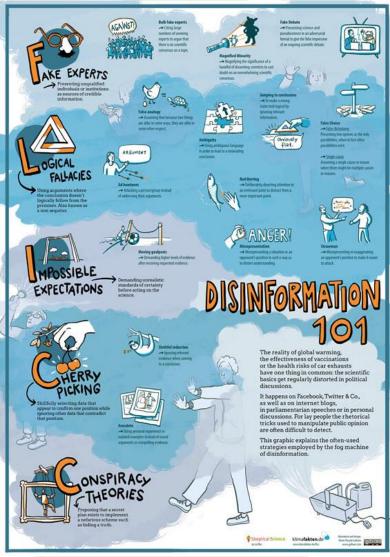
Many of you will know that in collaboration with the University of Queensland we created and ran the massive open online course (MOOC) "Denial101x - Making sense of climate science denial" on the edX platform. Within nine years - between April 2015 and February 2024 - we offered 15 runs of our MOOC, most of them long-running versions in self-paced mode but also a few delivered as shorter paced versions with new lectures starting on a weekly schedule.

Sharp-eyed observers may have noticed that there was no announcement made last year in February about a next run after the one started in 2023 ended. As the saying goes, "all good things must come to an end" and this is what happened last year when the university decided to no longer offer Denial101x on the edX-platform.





FLICC-POSTER – 2020 and ongoing



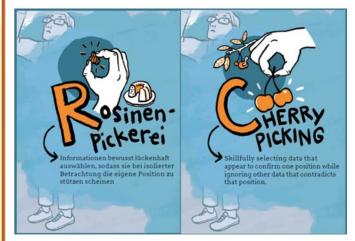
Klimafakten

All translations are accessible via https://sks.to/flicc-poster





But, the texts were not everything, as some of the techniques have different names in English and German, like for example "Rosinenpickerei" (picking raisins) in German which is "Cherry Picking" in English. In addition to the text, the graphics needed to be adapted as



In the German version of the poster the logical fallacy of "misrepresentation" was creatively depicted as flipping an "M" to a "W" to turn "Mut" (courage) into "Wut" (rage). It proved to be quite a challenge to find a good and equally creative equivalent in English, so Toralf and I enlisted the help of our respective teams at Klimafakten and Skeptical Science. In the end we settled on "plucking" the "D" from "Danger" to turn it into "anger":









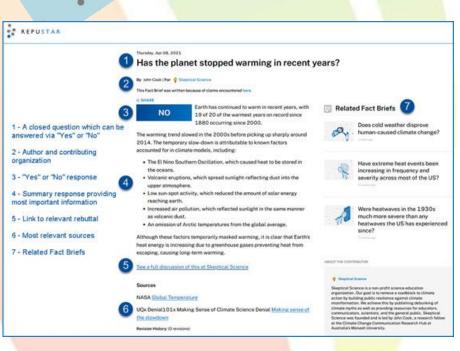
scheinbar zu stützen

REPUSTAR - 2021



REPUSTAR

In 2021 we were invited by Repustar to contribute to their fact checking project by publishing short fact briefs based on our rebuttals. For several months we collaborated with them and created 15 fact briefs.





Additional Fact Briefs published on Repustar

Posted on 13 July 2021 by BaerbelW

With an initial batch of eight published Fact Briefs we announced our partnership with the fact-checking organization Repustar at the end of April 2021. Since then, work has progressed in the background and seven more Fact Briefs have been published and are now available for quick rebuttals.



Do ice core records showing that warming preceded CO2 rise cast doubt on greenhouse warming?

NO - Antarctic ice core records dating back 800,000 years suggest that increases in carbon dioxide lagged behind increases in temperature by a couple of hundred years. This observation has been used by some to incorrectly claim that modern CO₂ emissions cannot be causing a rise in temperature. This misconception is based on the false dichotomy that warming is either driven by CO₂ or CO₂ is driven by warming. In reality, both are true. Read more ...

Is carbon dioxide incapable of warming the planet any more than it already has?

NO - As CO₂ accumulates in the atmosphere, trapping and re-radiating heat, Earth continues to warm. Rising CO₂ acts like a blanket, reducing the amount of energy escaping into space and causing the lower atmosphere, and surface, to warm.

A long-standing misconception is that the greenhouse effect is "saturated," suggesting that adding more CO₂ will not increase the amount of energy being trapped. This view fails to recognize that the atmosphere consists of





multiple layers.. Read more ..

Do natural climate cycles disprove that modern global warming is caused by humans?

NO - During Earth's last glacial period between 120,000 and 11,500 years ago, a number of approximately 1,500-year temperature cycles occurred. Also known as Dansgaard-Deschger events, the cycles caused a transfer of heat between the northern and southern hemispheres, producing a "seesaw effect": when one hemisphere cooled, the other warmed. Read more ...







GIGAFACT – 2024 AND ONGOING

GIGAFACT



Some of our fact briefs have been shared by other Gigafact partners like the Wisconsin Watch!

iciency, addressing global warming requires lowering greenhouse gas emission

eophysical Research Letters Time scales and ratios of climate forcing due to

NSF National Center for Atmospheric Research Anthropogenic Heat Flux tific Data Global 1-km present and future hourly anthropogenic heat fi

nent Global anthropogenic heat flux database with high spatia

ee a full discussion of this at Skeptical Science

GIGAFACT

Gigafact Al Donate ≡

Dividing the total amount of waste heat by Earth's surface area, Flanner found about 0.03

Watts per square meter of total warming was from waste heat, about 1%. Carbon dioxide's

Zhang and Caldeira published in 2015 that 1.71% of warming was from the direct hear

primary driver of climate change. While reducing waste heat is beneficial for efficiency addressing global warming requires lowering greenhouse gas emissions.

use gas effect added 2.9 Watts per square meter

energy released by fossil fuel combustion, the main source of waste heat

Go to full rebuttal on Skeptical Science or to the fact brief on Gigafact

This fact brief is responsive to quotes such as the one highlighted here

NSF National Center for Atmospheric Research Anthropogenic Heat Flux

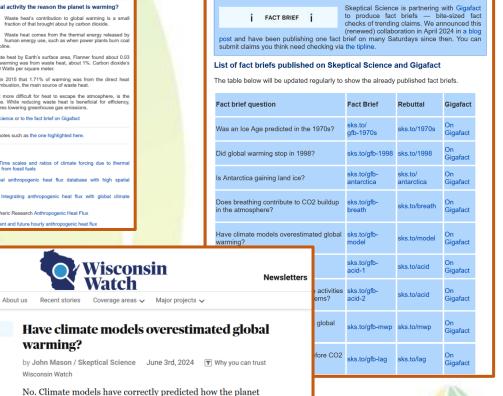
FACT BRIEF

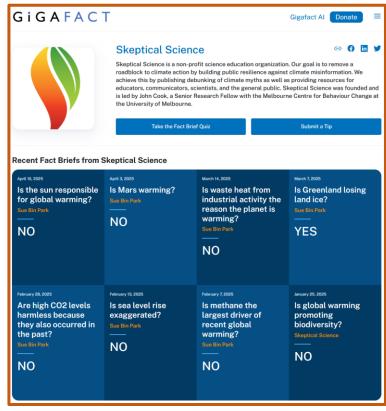
Skeptical **Science**

Scientific Data Global 1-km present and future hourly anthropogenic heat flux

warming?

would warm due to human greenhouse gas emissions.





Skeptical Science

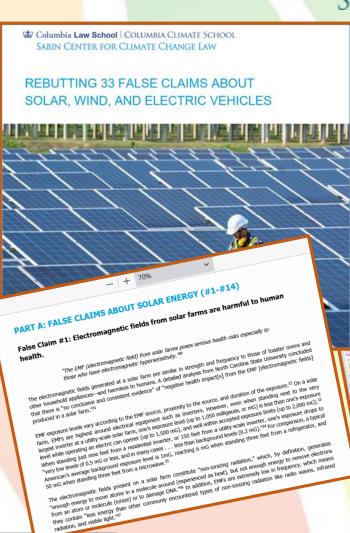




SABIN CENTER - 2024

Columbia Law School | COLUMBIA CLIMATE SCHOOL

SABIN CENTER FOR CLIMATE CHANGE LAW



In spring 2024 we became aware of a neat report published by the Sabin Center for Climate Change Law at Columbia Law School in which they debunked 33 myths about renewable energy and electric vehicles. The only shortcoming of the report was its publication as a PDF making it impossible to directly link to a specific rebuttal. We touched base with them and then collaborated on the creation of 33 individual rebuttals getting us from just 9 to 42 debunkings in the "It's too hard" category in our taxonomy.



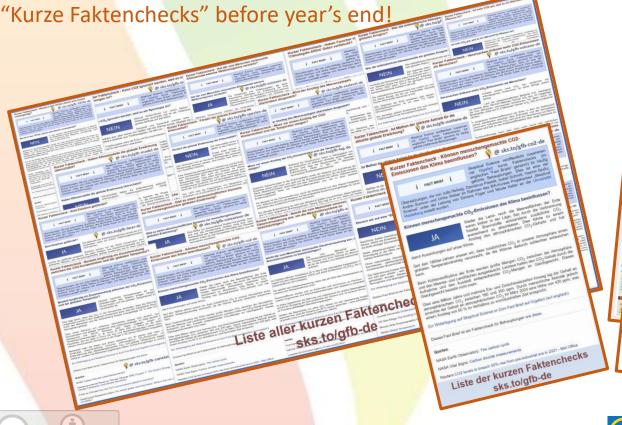
UNIVERSITY HEIDELBERG – 2024/2025

In summer 2024 we were approached by the Institute for translations at the University Heidelberg. They were looking for suitable texts their students could translate as course work during the autumn. We decided that the short fact briefs

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During the second half of the course, the students tackled the 33 rebuttals based on the report published by the Sabin Center for Climate Change Law. In February 2025 we received these translations and have now published all of them.







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Thanks! Bärbel Winkler Skeptical Science

baerbelw@skepticalscience.com

Abstract & Full presentation

Companion Blog Post









AUTHOR INFORMATION

Bärbel Winkler Skeptical Science BaerbelW[at]skepticalscience[dot]com Fellbach, Germany



Bärbel Winkler lives and works in Germany. She has always had a lot of interest in environmental issues and has been active as a volunteer at the local zoo and a conservation group for many years. Over time and while learning more and more about it, Bärbel became increasingly aware and concerned about climate change and what it will mean for generations to come. As a means to turn her concerns regarding climate change into something productive, Bärbel joined the Skeptical Science team in 2010 and started translating selected content into German. Since 2013 she has been coordinating the translation efforts for all languages, contributes a blog-post every once in a while, helps with many projects and became co-author of several consensus-related studies the Skeptical Science team has published over the years. From 2015 to 2024 she also coordinated the moderation team for the online course "Denial101x – Making sense of climate science denial".

https://sks.to/BaerbelW





LIST OF LINKS

INTRODUCTION

Skeptical Science – https://skepticalscience.com

Companion article – https://sks.to/EGU25-Collaborations

KLIMAFAKTEN

Homepage – https://klimafakten.de (German)

Partnership - https://skepticalscience.com/klimafakten-leveraging-SkepticalScience-content.html

NAUKA O KLIMACIE

Homepage - https://naukaoklimacie.pl/ (Polish)

DENIAL101X

Announcement – https://skepticalscience.com/uq-offering-mooc-denial101x.html

Interactive PDF (EGU 2021) - https://skepticalscience.com/docs/EGU21-Denial101x-vPico.pdf

End of the MOOC - https://skepticalscience.com/mooc-denial101x-run-its-course.html

FLICC-POSTER

Announcement – https://sks.to/flicc-poster-collab

Overview page – https://sks.to/flicc-poster

REPUSTAR

Announcement – https://skepticalscience.com/collaboration-with-repustar-provide-fact-briefs.html

GIGAFACT

Announcement - https://skepticalscience.com/gigafact-and-skeptical-science-collaborate-to-create-fact-briefs.html

List of all fact briefs - https://sks.to/gfb

List on Gigafact - https://gigafact.org/contributors/skeptical-science/

SABIN CENTER FOR CLIMATE CHANGE LAW

Announcement - https://sks.to/sabin33-blog

Report (PDF) - https://sks.to/sabin33-report

List of rebuttals – https://sks.to/sabin33-rebuttals

UNIVERSITY OF HEIDELBERG TRANSLATOR COURSE

Kurze Faktenchecks – https://sks.to/gfb-de

Sabin Rebuttals – https://sks.to/sabin33-rebuttals-de





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Oral | Thursday, 01 May, 12:00–12:10 (CEST) Room -2.93

Collaborations between Skeptical Science and other groups to spread fact-based information

Bärbel Winkler

Skeptical Science, Fellbach, Germany (baerbelw@skepticalscience.com)

Skeptical Science is a volunteer-run website publishing refutations of climate misinformation. Some members of the Skeptical Science team actively research best-practices refutation techniques while other team members use these findings to share debunking techniques effectively either in writing or through presentations. During 2024, our team collaborated with other groups specializing in fact checking and countering misinformation about the climate crisis. With this submission we highlight two of these collaborations:

- Creating fact briefs in collaboration with Gigafact
 Fact briefs are short, credibly sourced summaries that offer "yes/no" answers in response to claims found online. They rely on publicly available, often primary source data and documents. Fact briefs are created by contributors to Gigafact a nonprofit project looking to expand participation in fact-checking and protect the democratic process.
- Turning a PDF-based report refuting 33 climate solutions myths into stand-alone rebuttals
 In early 2024 we spotted an impressive report addressing climate solutions misinformation, "Rebutting 33 False Claims About Solar, Wind, and Electric Vehicles," written by members of the Sabin Center for Climate Change Law at Columbia Law School. We collaborated with the authors to create 33 stand-alone rebuttals based on the report's content to make it possible to link to each of the rebuttals directly.

Both of these collaborations help with sharing fact-based information in order to counter mis- and disinformation spread online.

How to cite: Winkler, B.: Collaborations between Skeptical Science and other groups to spread fact-based information, EGU General Assembly 2025, Vienna, Austria, 27 Apr-2 May 2025, EGU25-1439, https://doi.org/10.5194/egusphere-egu25-1439, 2025.



