



# Royal Netherlands Academy of Arts and Sciences (KNAW) KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN

## Internet Blogs, Polar Bears, and Climate-Change Denial by Proxy

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## Supplementary information

### Blogs used for this study.

A total of 90 blogs discussing AGW, and both Arctic ice extent and polar bears were found on the internet using the Google search engine, although some were already known to the first author. The internal search engines of the found blogs and site-restricted Google searches were used to evaluate blog content and score their positions on six statements as described in the main manuscript. Citation of Susan Crockford was also recorded. Blogs were assigned 'science-based' and 'denier' categories on the basis of their positions taken relative to those drawn by the IPCC on global warming (e.g. whether it is warming or not and the anthropogenic contribution). The assignment was confirmed by creating a distance matrix from the scores using absolute distance (Manhattan distance) and performing a hierarchical cluster analysis on the result (Ward.D2 method from R 3.3.3, R Core Team, 2017). Both methods yielded two large clusters with identical content. Some blogs expressed positive responses to multiple questions (e.g. Arctic ice is declining but it is due to natural forcings) therefore the total number of hits for a statement can be larger than the total number of blogs in a category. Blog entries until June 20, 2017 were used.

### AGW supporting science-based blogs used for Figures 1 and 2.

A Walk On The Natural Side (<http://perhapsallnatural.blogspot.nl>)

Advocacy for Animals (<http://advocacy.britannica.com/blog/advocacy/>)

Carbonbrief (<http://www.carbonbrief.org/>)

Churchill Polar Bears (<http://churchillpolarbears.org/>)

Climate Change: The Next Generation (<http://climatechangepsychology.blogspot.nl>)

Climate Feedback (<http://blogs.nature.com/>)

Climate Plus (<http://www.climateplus.info/>)

Climate Science Watch (<http://www.climatesciencewatch.org/>)

Cool Green Science (<http://blog.nature.org/science/>)

David Suzuki Foundation (<http://www.davidsuzuki.org/blogs/>)

Defenders of Wildlife (<http://www.defenders.org/>)

Discovery Kids (<http://discoverykids.com/>)

Deep Climate (<http://deepclimate.org/>)

Dot Earth (<http://dotearth.blogs.nytimes.com/>)

EcoInternet (<http://ecointernet.org/>)

Encounters Alaska (<http://www.encountersnorth.org/index.htm>)

Frontiersnorth (<https://frontiersnorth.com/blog/>)

Gizmodo (<http://gizmodo.com/>)

GO<sub>3</sub> Project (<http://www.go3project.com/>)

Greendustries Blog (<http://greendustriesblog.com/>)

GreenFacts (<https://www.greenfacts.org/>)

Grist (<http://grist.org/>)

Heat is Online (<http://www.heatisonline.org/>)

National Wildlife Federation (<http://www.nwf.org/>)

Phys Org (<http://phys.org/>)

Planet 3.0 (<http://planet3.org/>)

PLoS Blogs (<http://blogs.plos.org/models/>)

Polar Bears International (<http://www.polarbearsinternational.org>)

Scholar and Rogues (<https://scholarsandrogues.com/>)

ScienceDaily (<https://www.sciencedaily.com/>)

Scientific American Blog (<https://blogs.scientificamerican.com/>)

Skeptical Science: <https://www.skepticalscience.com/>

The Corkboard Blog (<http://naturalexposures.com/>)

The Frog That Jumped Out (<http://thefrogthatjumpedout.blogspot.nl/>)

TheGreenGrok (<http://blogs.nicholas.duke.edu/>)

The Way Things Break (<https://thingsbreak.wordpress.com/>)

Thin Ice Blog (<http://arctic.blogs.panda.org/>)

Think Progress (<http://thinkprogress.org/>)

Tom Dispatch (<http://www.tomdispatch.com/>)

UMass Blog (<https://www.umass.edu/it/blogs>)

Wildscreen Arkive (<http://www.arkive.org/>)

World Wildlife Fund Canada (<http://www.wwf.ca/>)

Yale Climate Connections (<http://www.yaleclimateconnections.org/>)

Yale Environment 360 (<http://e360.yale.edu/>)

York Blog (<http://www.yorkblog.com/>)

## **AGW denying blogs used for Figures 1 and 2.**

Blog entries until February 3, 2017 were used (all accessed on 3 February, 2017 along with blog histories). Blogs marked with an asterisk refer to those primarily using the Polar Bear Science blog (of Dr. Susan Crockford) as their main supporting reference.

\*American Thinker (<http://www.americanthinker.com/>)

\*Bishop Hill (<http://bishophill.squarespace.com/>)

Bjorn Lomborg (<http://www.lomborg.com/>)

\*Breitbart (<http://www.breitbart.com/>)

\*Climate Change Dispatch (<http://www.climatechangedispatch.com/>)

\*Climate Depot (<http://www.climatedepot.com/>)

\*C Fact (<http://www.cfact.org/>)

\*Climategate (<http://climategate.nl/>)

\*Climate Lessons (<http://climatelessons.blogspot.nl/>)

Climate Sanity (<https://climatesanity.wordpress.com/>)

\*Climatism (<https://climatism.wordpress.com/>)

CO2 coalition (<http://co2coalition.org/>)

\*Daily Caller (<http://dailycaller.com/>)

\*Fix This Nation (<http://www.fixthisnation.com/>)

\*Friends of Science (<http://www.friendsofscience.org/>)

\*Gateway Pundit (<http://www.thegatewaypundit.com/>)

\*Global Climate Science Scam (<http://www.globalclimatescam.com/>)

\*Greenie Watch (<http://antigreen.blogspot.nl/>)

\*GWPF (<http://www.thegwpf.org/>)

\*Hockey Schtick (<http://hockeyschtick.blogspot.nl/>)

\*Ice Age Now (<https://www.iceagenow.com/>)

\*International Climate Science Coalition (<http://www.climatescienceinternational.org/>)

\*Junkscience (<http://junkscience.com/>)

Jennifer Marohasy (<http://jennifermarohasy.com/>)

New Zealand Climate Science Coalition (<http://www.climatescience.org.nz/>)

\*No Frakking Consensus (<http://nofrakkingconsensus.com/>)

\*Not a lot of people know that (<https://notalotofpeopleknowthat.wordpress.com/>)

\*Notrickszone (<http://notrickszone.com/>)

\*Polar Bear Science (<http://polarbearscience.com/>)

\*Powerline (<http://www.powerlineblog.com/>)

\*Principia Scientific (<http://www.principia-scientific.org/>)

\*Quixotes Last Stand (<https://quixoteslaststand.com/>)

Real Science (<https://stevengoddard.wordpress.com/>)

Resilient Earth (<http://theresilientearth.com/>)

Scottish Sceptic (<http://scottishsceptic.co.uk/>)

Skeptic's Corner: <http://jer-skepticscorner.blogspot.nl/>)

\*SPPI (<http://sppiblog.org/>)

\*Tall Bloke (<https://tallbloke.wordpress.com/>)

\*The Daily Caller: <http://dailycaller.com/>

The Rational Optimist (<http://www.rationaloptimist.com/blog/>)

\* The View From Here (<https://hro001.wordpress.com/>)

\*Tom Nelson (<http://tomnelson.blogspot.nl/>)

\*Tom Remington (<http://tomremington.com/>)

\*Watts Up With That (<http://wattsupwiththat.com/>)

World Climate Report (<http://www.worldclimaterreport.com/>)

## **Methods for the Principal component analysis (PCA, Figure 2)**

A broad keyword search on the internet and the ISI Web of Science database yielded 90 blogs (described above) and 92 peer reviewed papers reporting on both Polar bears and arctic ice. Author's positions in papers were scored in in same "position space" defined by binary answers to the six statements formulated in the main papers and citation of Dr. Susan Crockford as an expert. Missing values were replaced by zero after scaling and centering to minimize the influence of the replacement. The final data matrix contained the sources in the rows and the scores in the columns. The PCA was conducted using the prcomp routine from R 3.3.3 (R Core Team, 2017). Papers were classified as controversial when they evoked critical comments and discussion in the peer reviewed literature., blogs were colour coded using the results of a hierarchical cluster analysis (Ward.D2 method from R 3.3.3, R Core Team, 2017). Datapoint were slightly jittered to improve visibility of overlapping points.

R Core Team (2017). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>.

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