

Global Warming and Climate Change in Late-Night Comedians' Monologues

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ABSTRACT

Research demonstrates that late-night comedians have an effect on shaping viewers' political opinions, with large audiences that rival those of many traditional news sources. One heavily politicized issue that appears in the nightly monologues is global warming and climate change (GW/CC). Considering that late-night comedy writers use news as material to craft monologue jokes, examining jokes about GW/CC can shed light on media perspectives and how these have shifted over time. Using a corpus of jokes drawn from *The Bulletin's Frontrunner* for the years 1996-2021, we use interpretive social science methods of analysis to examine how GW/CC jokes have appeared in the monologues.

Analysis of these jokes found GW/CC was not talked about often early in the corpus, but saw a spike in usage along with the term "gore", in reference to Al Gore, in 2006. The term global warming was phased out in favor of the term climate change, with usage of the latter term becoming more common in 2015. Jokes reflected various viewpoints of claims made by scientists and politicians about GW/CC. Jokes were coded by the researcher to assess if they were supportive, neutral or skeptical of GW/CC science. Jokes were a mix of skeptical and supportive up until 2012, at which point there were no more skeptical jokes about GW/CC and the volume of jokes that supported the idea that GW/CC is happening increased.

"It's time for us to start talking about "climate change" instead of global warming ... "Climate change" is less frightening than "global warming" (Luntz , 2003, as cited by Lakoff, 2010, p.71)

I. INTRODUCTION

Late-night comedy shows have long occupied a unique place in the media environment (Peterson, 2008; Wild, 2019). A genre that harkens back to the 1950s, and includes both long-running and short-lived series such *The Tonight Show*, *The Arsenio Hall Show*, *The Daily Show*, and *The Colbert Report*, the often highly political nature of these shows' joke monologues have the potential to frame issues for viewers. This process potentially impacts their viewer's worldviews. Some viewers of these late-night comedy shows claim to get their news from such programs. In 2000, 47% of Americans under 30 obtained some campaign news from late-night shows (Moy et al., 2005, p. 199), which demonstrates the influence that these programs can have, especially among younger voters. Even

so, it doesn't appear that those who watch late-night comedy programs are getting their news solely from these shows. Young and Tisinger note that "Young people are not watching late-night comedy as their exclusive source of news or instead of traditional news. Rather, they are watching both. In fact, watching late-night comedy is positively and significantly correlated with watching almost all forms of traditional news examined here, even when controlling for other variables." (Young and Tisinger, 2006, p. 128.) This shows that many viewers already have knowledge of what is happening in the news. These shows have the ability to frame for their audience issues discussed during the show. Late-night comedy shows, in their writer's efforts to be topical, utilize news to select topics of jokes. Our focus is to see how news coverage of global warming and climate change (GW/CC) is reflected in the nightly monologues the comedians deliver. This can lead to these programs having an effect on their viewer's perceptions of these political events and politicized issues such as GW/CC. Moy et al. found that there was "Some potential for

late-night comedy to sway audience members' perceptions..." (Moy et al., 2005, p. 205) Comedy can be used as a unique way of opening a dialogue about GW/CC, opening ways of talking about these issues that cannot be harnessed by traditional sources of news. Late-night comedians are not governed by the same rules and etiquette traditional news-media are governed by, and they can use comedy as a way of communicating criticisms, ridiculing political opponents, and supporting political allies. This research seeks to analyze how late-night comedians talk about GW/CC in their monologues.

II. Literature Review

As the American populace has become increasingly aware of GW/CC issues, entertainment media has also taken notice and has incorporated GW/CC into their practices. The development of the popular culture genre "cli-fi" in movies, books and other forms of media engagement with GW/CC themes represents an embrace of the themes in recent years, feeding off of news coverage and broader public awareness (Tuhus-Dubrow, 2013; Svoboda, 2016; Leikam and Leyda, 2017). That an entertainment genre such as late-night comedy that actively mines the news for topics would incorporate GW/CC themes into the nightly monologues is merely an extension of the trend to other media. Perhaps more importantly, the increase in engagement is bringing these issues to wider audiences. As Bulfin notes, entertaining works can reach larger audiences than other sources of popular science information. (Bulfin, p. 141).

How late-night comedians contribute to greater awareness of any issue is a subject of scholarly concern. Late-night monologues are intended to be topical in order to be seen as relevant. Topicality is an important part of late-night comedians' monologue humor. For writers to generate enough content to fill the near-daily monologues, the news is an excellent source of inspiration. As Toplyn states in *Comedy Writing for TV*, "Topical content is woven throughout every comedy/talk show but it exists in its purest, most concentrated form in the monologue." (Toplyn, p. 50). Reliance on the news media as sources of inspiration introduces potential issues though. While not the purview of this paper, it is important to note that patterns of media framing of GW/CC

issues has been studied extensively, raising issues of perceived hypocrisies (Gunster, et al, 2018), cultural politics (Boykoff, 2008), relative attention to GW/CC in news cycles (Saunders, et al., 2017), the media framing of GW/CC scientists and skeptics (Knight and Greenberg, 2011) as well as the lack of discussion of impacts on future generations (Graham and de Bell, 2021).

The relative power of the late-night comedians has been debated since a Pew Media research report claimed that a portion of their audiences were getting news from the late-night shows (Cosgrove-Mather, 2004; Pew Research Center for the People and the Press, 2004; Pew Research Center for the People and the Press, 2012; Gottfried et al., 2016). Research found that there were small effects from late-night comedians' shows. Early work demonstrated there was some impact on recalling details about campaigns (Hollander, 2005; Cao, 2008). Young and Tisinger (2006) found that some viewers used late-night shows to augment what they already knew about the issues.

Those more critical of the genre point out the potential impacts on viewers' views on political processes. According to Baumgartner and Morris, exposure to *The Daily Show* lowers trust in the electoral process and the media due to the focus on the absurd by the comedians, but they also raise the counter-effect in that viewers perceive that the complex world of politics is understandable. (Baumgartner and Morris 2006, p. 362). Lichter et al. points out the monologues focus on the personal foibles of politicians which distracts from engaging larger concerns. (Lichter et al., 2015, p. 206)

Peterson goes further in his critique of the "pseudo-satire" of the late-night comedians' monologue humor, arguing that there are negative impacts as prophylactic irony dominates the monologues: "If comedy is to have any positive effect on politics, it must be understood as taking *part* in politics, keeping it on track, and nudging it toward its ostensible goal of improving the common good." (Peterson, 2008, p. 206). While Peterson praises satirists such as Stephen Colbert and John Stewart, among others, he dismisses the likes of Leno, Letterman and others as contributing to the idea that,

“...politics is inherently impure, elections, deliberation and democracy itself are all futile. However, genuine politically engaged satire, motivated by a passionate belief in democracy, equality, justice - all those corny things the age of irony has encouraged us to roll our eyes at - can play a vital role in telling people what is going on, and why they should care.” (Peterson, 2008, p. 206)

Despite the debate over the genre’s impacts, the question remains, why does this genre deserve attention for its’ role in contributing to understandings of GW/CC issues? One measure of the potential impact is the number of viewers. Late-night comedians have a large audience who are listening to what they’re saying. In a piece examining Jay Leno’s treatment of Mexican protests, Santa Ana pointed out that at 5.9 million viewers, *The Tonight Show’s* audience was larger than the three largest national newspapers at the time. (Santa Ana, 2009, p. 25). While Leno is presently off the air, late-night comedians still draw large audiences, albeit now spread across multiple media channels and platforms. More recent ratings show that the main networks late-night shows (airing right after late local news for ABC, CBS, NBC), viewership totals 6.24 million. This decline in comparison to Leno’s individual ratings reflects the fracturing of the late-night audience as more options are available on cable and niche programs such as *The Daily Show* (White, 2021) and should not be seen as a decline in influence.

Additionally, as studies have shown, late-night comedians do frame understandings of political candidates and other issues (Lichter, et al, 2015). In a critical vein, “...late-night comedy does more than simply induce apathy and dumb down our discourse. It adds its own dimensions to the interpretation of current events, even as it shuts out others.” (Peterson, p. 3). If this is the case, then the jokes of the late-night comedians can reinforce the media coverage and the frames the news media employ. This certainly applies to GW/CC as much as it would to political campaigns and politicians.

Thus, the literature makes the case that late-night humor should be seen at a minimum as a genre impacting the way the audiences see issues, and that the late-night comedy shows are part of a constellation of media sources that reproduce certain worldviews.

III. Data and Methods

Our data (the corpus of jokes) was collected from *The Bulletin’s Frontrunner*, a daily digest of overnight news which is distributed to subscribers and available through the LexisNexis database. We specifically searched the “Last Laughs” section of the publication for jokes mentioning the terms “warming” in reference to global warming and “climate” in reference to climate change. This section goes back to 1996 in the University of Oklahoma LexisNexis database and runs through 2021. The first use of our search terms appeared in 1997.

In *The Bulletin’s Frontrunner* there were duplicate jokes, where the same joke was listed multiple times despite not being told multiple times. Duplicates were removed from our corpus. This yielded a total of 351 jokes that mentioned either the terms global warming or climate change.

The jokes were then coded to gauge whether the concepts of global warming or climate change were merely setups to mock political figures (common targets of late-night comedians, see Peterson, 2008; Wild, 2019; Lichter, et al., 2015). Each joke was classified by the object of ridicule and whether the jokes communicated skepticism or support for the concepts of GW/CC. Additionally, a code for whether the comedians were calling out perceived hypocrisy on the part of political and public figures’ actions regarding GW/CC was applied. In keeping with interpretive social science approaches, the jokes were coded based on developing an understanding of the events and actors mentioned. There were no efforts to statistically calculate intercoder reliability as no codebook was developed and coding was restricted to the authors.

A text visualization package developed specifically to support digital humanities research, Voyant Tools (2021), was used to visualize temporal trends in the the use of the terms GW/CC. Jokes were sorted by year using separate Google Sheets spreadsheets, which were then converted into Microsoft Excel and uploaded into Voyant Tools. In Voyant Tools these datasets were visualized in chronological order by year. The specific tool we used for this analysis was the Trends tool which simply shows changes over time

in the corpus of jokes. (See Figure I, page 10 and Figure II, page 11)

It is very possible that our dataset is not a complete list of all GW/CC related jokes told during the time period we searched. Some GW/CC related jokes could have been excluded by not expanding the search terms to encompass jokes that did not explicitly mention GW/CC but were referencing the concepts in other ways. As the corpus is built from secondary data relying on joke selections made by *The Bulletin's Frontrunner* content contributors, GW/CC jokes may have been missed or deliberately excluded for the publication's editorial processes. The transcription of the jokes might have errors that were included in the publication. Finally, *The Bulletin's Frontrunner* "Last Laughs" section also records the jokes of only some late-night comedians and these are exclusively for American programs. Despite these caveats, we feel that we have a high-quality sample of the late-night comedians' jokes told about GW/CC issues.

IV. Analysis

Figure I shows the raw frequency of the terms "global", "warming", "climate", and "change". There is a strong correlation between the terms "global" and "warming" as well as "climate" and "change", showing that these sets of terms were often used together. There is a clear increase in the number of jokes selected for *The Bulletin's Frontrunner* that discuss global warming beginning in 2005 that carries through to 2011. In addition to that, after increasing for the previous two years, there is a significant spike in the use of the terms "global" and "warming". This is likely because of Al Gore's movie *An Inconvenient Truth*, which was released on June 30th, 2006. This brought more attention to the discussion of global warming in media outlets. Comedy writers, seeking to keep their shows topical, focused more on this popular issue. As we see in Figure II, mentions of global warming increased in 2006 as mentions of "gore", in reference to Al Gore, increased, which strongly suggests that the two are linked. As the literature suggests, while addressing a serious issue, the jokes peddle in caricatures:

"And Al Gore's documentary, 'An Inconvenient Truth,' about global warming, nominated for two Academy Awards. But a lot of people expect him to get another Oscar nomination for best special

effects. Did you see the movie? Did you see it? They made Al Gore look so lifelike. I could not believe -- I was stunned. He's actually moving." (Jay Leno, quoted in *The Bulletin's Frontrunner*, January 25, 2007)

Figure I also helps us visualize the change in how comedians talk about GW/CC. While global warming was the original term used, the term "climate change" was first seen in our dataset in 2008 as knowledge of how Earth's climate worked evolved. This is five years after a memo advising the George W. Bush administration to embrace the term (Luntz, 2003, in Lakoff, 2010, p. 71). Mentions of climate change in the comedians' monologues overtake that of global warming in 2015, and every subsequent year sees climate change mentioned more than global warming.

We were also curious about the comedians' general attitudes toward GW/CC issues. Figure III (see page 12) is a chronological visualization of jokes based on our classification if they are supportive or skeptical of the concepts of GW/CC. The jokes were coded as skeptical if they question the ideas of GW/CC by attacking scientists or leaders trying to make the case for GW/CC, neutral if the butt of the joke is more about a politician or an issue unrelated to GW/CC, and positive if the joke seems to accept the concepts of GW/CC.

Jokes that were termed "supportive" were coded as a 1, jokes that were coded as "skeptical" were given a -1, and if the joke was neutral it was coded a 0. There are a total of 42 skeptical jokes, 169 neutral jokes, and 140 supportive jokes in the dataset. As we can see in Figure III, at the beginning of the period of time covered in this analysis, jokes are split between being skeptical, supportive, and neutral. By the end of this time period, all jokes are neutral towards or supportive of the concepts of GW/CC. The last skeptical joke in the dataset was in 2011.

An example of a skeptical joke usually tried to take an outbreak of cold weather and contrast it with the notion of global warming:

"Little cold outside today, kids? Well, so much for your global warming, you know what I'm saying." (David Letterman, quoted in *The Bulletin's Frontrunner*, November 21, 2008)

Jokes coded as neutral merely used GW/CC as a vehicle to often attack personal characteristics:

"Scientists in London are saying that the blame for global warming may go to fat people." They "say the average fat person emits a ton more carbon dioxide than the average thin person. So in other words, the reason for global warming is people like" Al Gore, "right?" (Jimmy Kimmel, quoted in *The Bulletin's Frontrunner*, April 22, 2009)

Finally, supportive jokes seemed to accept the premise of GW/CC and mocked public figures that denied or questioned the consensus of scientists:

"Neurosurgeon and Tea Party favorite Ben Carson announced he's running for president. As a neurosurgeon who's also a member of the Tea Party, Carson's specialty is removing that part of the brain that believes in climate change." (Conan O'Brien, quoted in *The Bulletin's Frontrunner*, May 5th, 2015)

This extreme shift in views on GW/CC issues after 2011 is not simply explained. Comedians who regularly told jokes coded as skeptical such as Jay Leno and David Letterman, did not retire until 2014 and 2015 respectively. What this suggests is that if there was a media consensus on the legitimacy of GW/CC, the comedians' writers, knowing this, would have to create jokes that were congruent with their audiences' understandings of GW/CC. This in return, would reinforce acceptance of GW/CC as real.

Some jokes were difficult to classify because they focused on perceived hypocrisy by leaders and public figures making claims about the threat from GW/CC. Out of the 11 identified hypocritical jokes, 1 was skeptical towards the concepts of GW/CC, 1 was supportive, and 9 were neutral. An example of one of these jokes is the following one calling out the actions of world leaders at the international climate talks in Paris:

"The international climate talks in Paris wrapped up this weekend with 195 countries reaching a landmark agreement to cut greenhouse gas emissions. And then they all drove to the airport in 195 cars." (Seth Myers, quoted in *The Bulletin's Frontrunner*, December 15, 2015)

Pointing out the hypocrisy can be seen as a two-pronged criticism. First the joke points out the

large carbon footprint the conference participants left behind. Secondly, it works to validate the skeptics' views that if the leaders are not taking GW/CC seriously in their own actions, why should they?

Political figures and Global Warming and Climate Change

One of the most common objects of ridicule for late-night comedians in their monologues are politicians. Combining politics and GW/CC-related events allows the concepts of GW/CC to serve as the setups for these jokes. Prominent political figures are more often targets of these jokes, including President Clinton, President Bush, Vice President Al Gore, First Lady and later Secretary of State Hillary Clinton, President Obama, and President Trump.

President Clinton is the target of 12 jokes, three of which are also about Hillary Clinton, making fun of their relationship or referring to Hillary as emotionally cold, two of which are about President Clinton being perpetually on the prowl. A typical joke involving global warming and Bill Clinton invokes his perceived roving eye:

"Olympic officials have determined it's too cold for the women's beach volleyball competitors to wear bikinis. In a related story today, Bill Clinton came out in favor of global warming." (Conan O'Brien, quoted in *The Bulletin's Frontrunner*, August 1, 2012)

Hillary Clinton was the target of 13 jokes in the dataset, with six of those jokes ridiculing another target as well:

"Hillary Clinton went to Copenhagen and announced America's support of a \$100 billion climate protection fund. She said she's personally seen evidence of global warming. In fact, even her relationship with Bill is now starting to thaw." (Jay Leno, quoted in *The Bulletin's Frontrunner*, December 21, 2009)

President Bush is the target of 43 jokes, a fair number ridiculing him for his inaction on GW/CC or for being unintelligent and having little or no knowledge of the issues at hand:

"President Bush -- see, I don't think he understands a lot of these things. He gave his

solution to global warming. He said global air conditioning. That is what we need." (Jay Leno, quoted in *The Bulletin's Frontrunner*, September 27, 2005)

Al Gore is the target of 69 jokes. This is the most ridiculed figure in our corpus. This is most likely because GW/CC issues are what Al Gore is most associated with, and since our corpus is focused on GW/CC we see him mentioned a significant number of times for that reason. He's also a popular target of ridicule for the comedians, as when GW/CC wasn't necessarily accepted as a concept among the general public Al Gore was easily portrayed as hysterical by comedians for being so stalwart in his belief in GW/CC and his insistence in the necessity of radical action to address these issues:

"Another freezing day in Los Angeles. When is this cold going to stop? I tell you. It was so cold, Al Gore today tried to give a speech on global warming, got pelted with snowballs." (Jay Leno, quoted in *The Bulletin's Frontrunner*, January 17, 2007)

President Obama is the target of 11 jokes, though not in the same fashion other political figures are. None of the jokes in our dataset make fun of President Obama's personality or physical appearance. They do poke fun at his policies and their consequences, but that seems to be as far as the comedians will go:

"And a new study released Monday by the Center for Economic Policy and Research says that working fewer hours can slow global warming. ... You know what that means? President Obama's economic policy is also his climate change policy." (Jay Leno, quoted in *The Bulletin's Frontrunner*, February 7, 2013)

President Trump is the target of 54 jokes. Many of these jokes are about Trump's perceived disbelief of GW/CC. By this point in the corpus, all the jokes about climate change are supportive or neutral towards the concepts of GW/CC. The comedians ridicule Trump for not accepting the consensus of scientists:

"President Trump is still fighting his own administration's climate-change report released earlier last week. And like the climate, his arguments are getting worse. ... Clearly, the

President doesn't believe in the science or the English. Because if you're trying to say you're too smart to believe in climate change, it doesn't help when your argument ends with, 'It is right now at a record clean.' Like, it makes him sound super dumb. Or maybe Trump is so intelligent that he's leaving English behind." (Trevor Noah, quoted in *The Bulletin's Frontrunner*, November 28, 2018)

Comedians also didn't spare the family members of politicians from being the objects of their ridicule. President Bush's mother is the target of two jokes, both about her being cold, and his twin daughters are the targets of 3 jokes, all of which are about their drinking habits:

"Next week, President Bush is going to address an international summit on the problems of global warming. . . The President says, 'Global warming is a serious problem. If we don't do something soon, my daughters won't be able to have frozen margaritas.'" (Conan O'Brien, quoted in *The Bulletin's Frontrunner*, June 8, 2001)

In our corpus, President Bush's family members were the most common family who were targets of jokes. However, they weren't the only ones. Donald Trump Jr. and Eric Trump were also the target of one joke, along with their father:

"In the same Washington Post interview, Trump discussed his views on climate change, again pointing out his amazing analytical skills. He says, quote, 'A lot of people like myself, we have very high levels of intelligence, but we're not necessarily such believers.' Now if that statement is confusing to you, it's because it is. It just is. Like Trump thinks he has a high level of intelligence. Now listen, you'd think that you have super-intelligence too if you spent your days with Eric and Donald Jr. You would feel like a genius." (James Corden, quoted in *The Bulletin's Frontrunner*, November 29, 2018)

V. Conclusion

From our corpus, we can see that GW/CC is a topic discussed in late-night monologues, and that the caricatures and information used in discussing these topics are, for the most part, reflective of what the audience already knows about the topic. The jokes told by comedians are also reflective of recent topics and issues, created by writers through "mining" the news for fresh stories to write

topical jokes as a way for the shows they are working on to remain relevant.

These jokes can be a useful tool in helping us understand the shift in the media's and public's acceptance of the scientific consensus about GW/CC, as they are created from news items that reflect how the media, and the public who consume said media, views global warming. As demonstrated by the shift from the term global warming to climate change, late-night comedians reflected, reproduced and perhaps amplified the news media's shift to accepting climate change as the preferred term. Invoking the new term reflected a tacit acceptance of the reality and seriousness of climate change.

We see in Figure III that as time passed there reached a point of acceptance that climate change is happening. While skepticism and support were mixed at first, support wins out in 2012, around the same time comedians started using climate change, the more accurate term favored by the scientific community, rather than global warming, to describe the phenomenon that's occurring. This could be evident of more traditional news sources also becoming accepting of GW/CC, and starting to use the more accurate diction, which is then adopted by the comedians in their monologues. Further research could look into traditional news sources to see if their coverage follows a similar pattern of skepticism and support towards the concepts of GW/CC that is seen in our dataset, as well as their word choice and whether global warming or climate change was used more frequently and when. Jokes about GW/CC are often not about those phenomena themselves, rather, GW/CC is being used to ridicule political figures for their responses, or inaction, to GW/CC. Or, in a similar fashion, GW/CC are used as the setup to a joke, with the angle being used to pivot to a punchline ridiculing a different target:

"Some health experts are now warning obesity is becoming a bigger problem than global warming. Isn't that amazing? Al Gore solving one problem, causing another at the same time." (Jay Leno, quoted in *The Bulletin's Frontrunner*, October 3, 2006)

Understanding how late-night comedians discuss GW/CC in their monologues can give us insight into how other traditional news sources discuss these issues as well. Trends and changes in news

should be reflected in late-night monologues, as these monologues are created from these news sources. Further research could look deeper into the connection between late-night monologues and news coverage, and investigate to what extent the patterns we have seen in our corpus reflect traditional news sources. One source of data for these comparisons would be the Cooperative Institute for Research in Environmental Sciences' Media and Climate Change Observatory Data Sets (Boykoff, et al, 2021).

Finally, the fact that comedians are joking about GW/CC should not be seen as a lack of critical, satirical efforts to raise the issue. Peterson (2008) is correct that little progress will come from the late-night comedians' use of GW/CC as fodder for jokes. That the news covers the issues and that writers think it is useful to include indicates a perception that the audience is familiar with the topic, and thus a positive take would include that GW/CC is a concern for many people, even if it is often merely a set-up for an attack on a politician:

"A nature watchdog group says we have five years to fix global warming or face catastrophic consequences, like the possibility of another Al Gore movie." (Jay Leno, quoted in *The Bulletin's Frontrunner*, May 15, 2007)

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VIII. Appendix A:

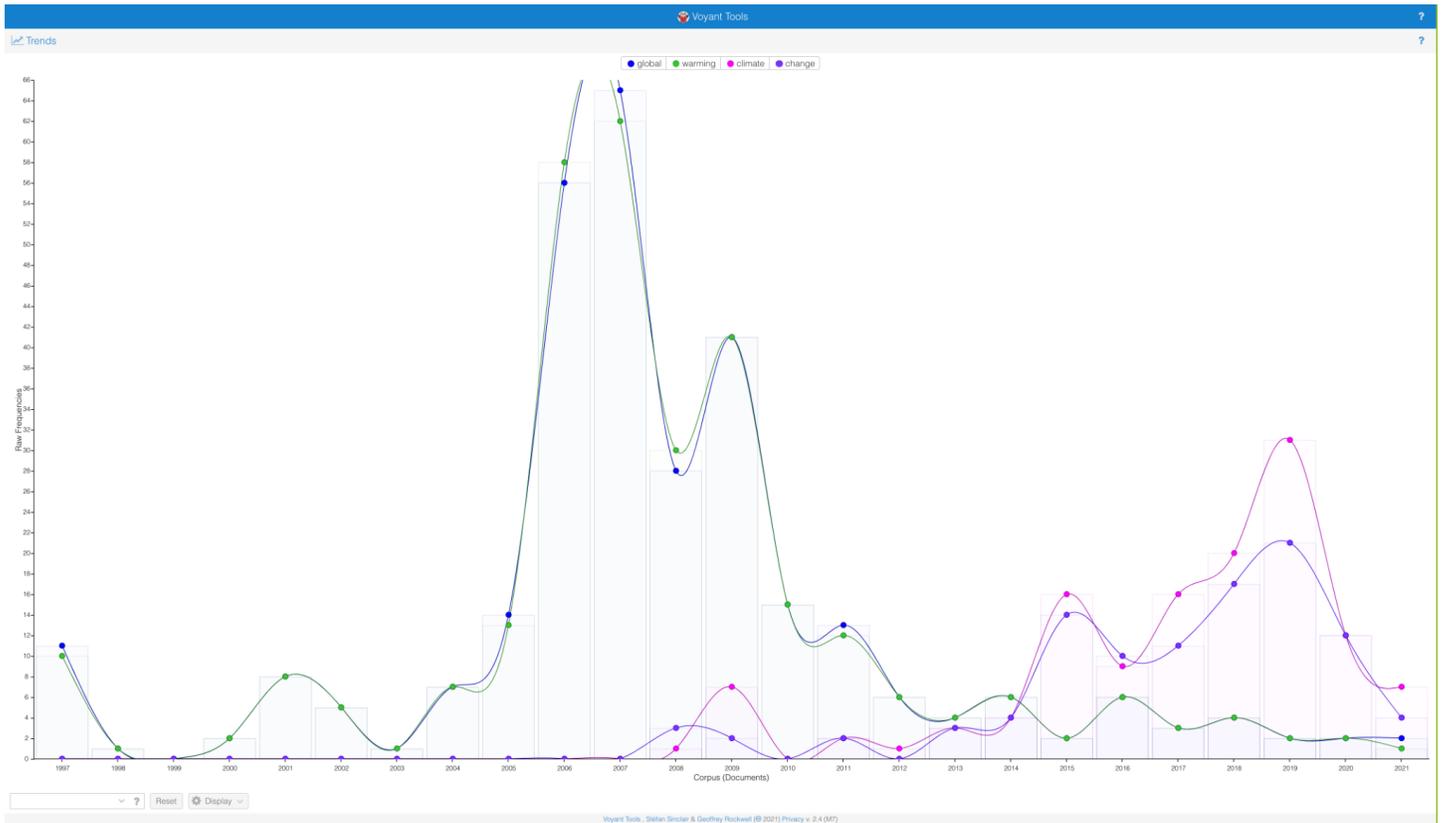


Figure I - Trends in use of the terms “global “, “warming”, “climate”, and “change”. Voyant-Tools, (2021).

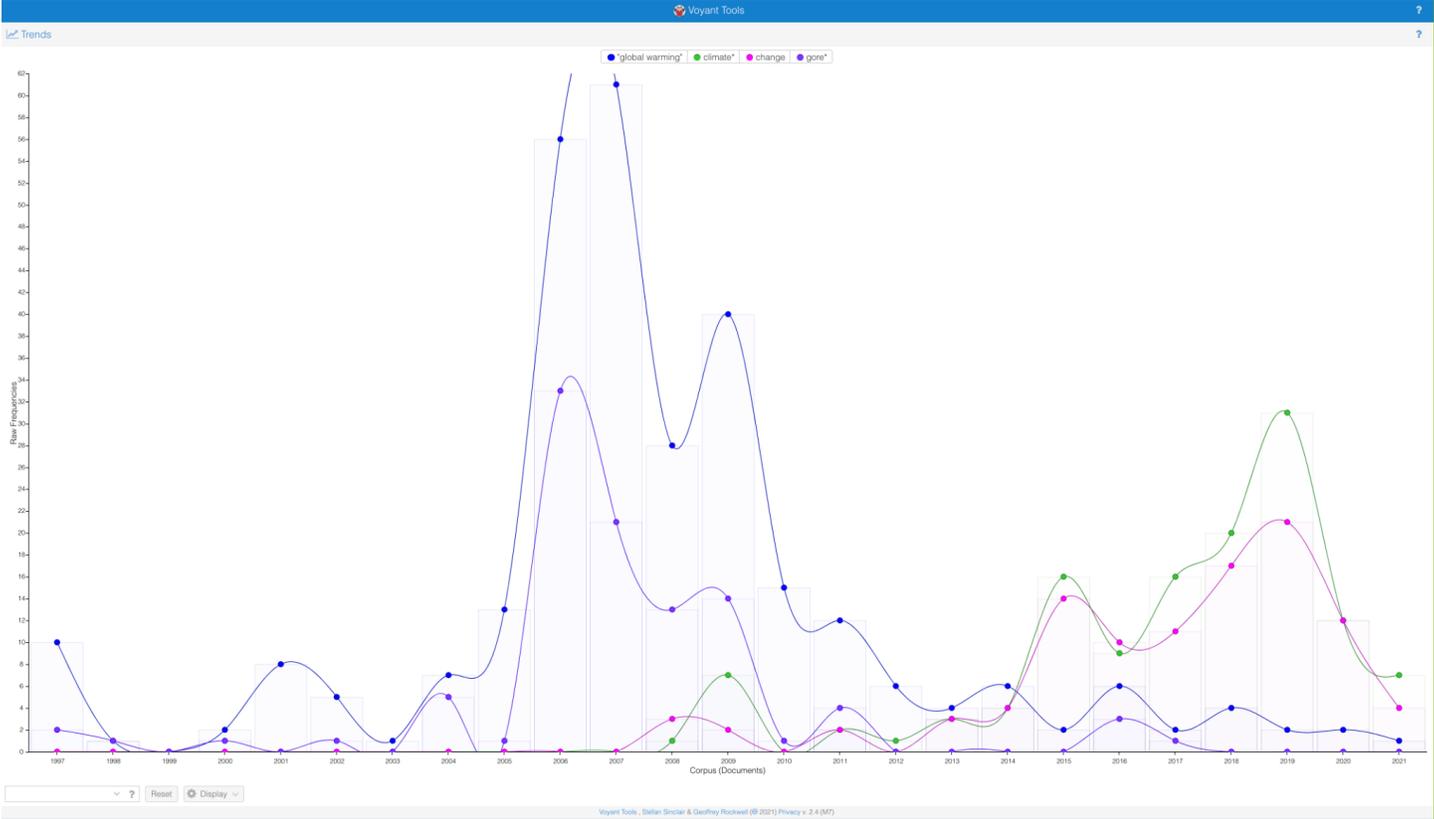


Figure II - Trends in use of the terms “global warming”, “gore”, “climate”, and “change”. Voyant-Tools, (2021).

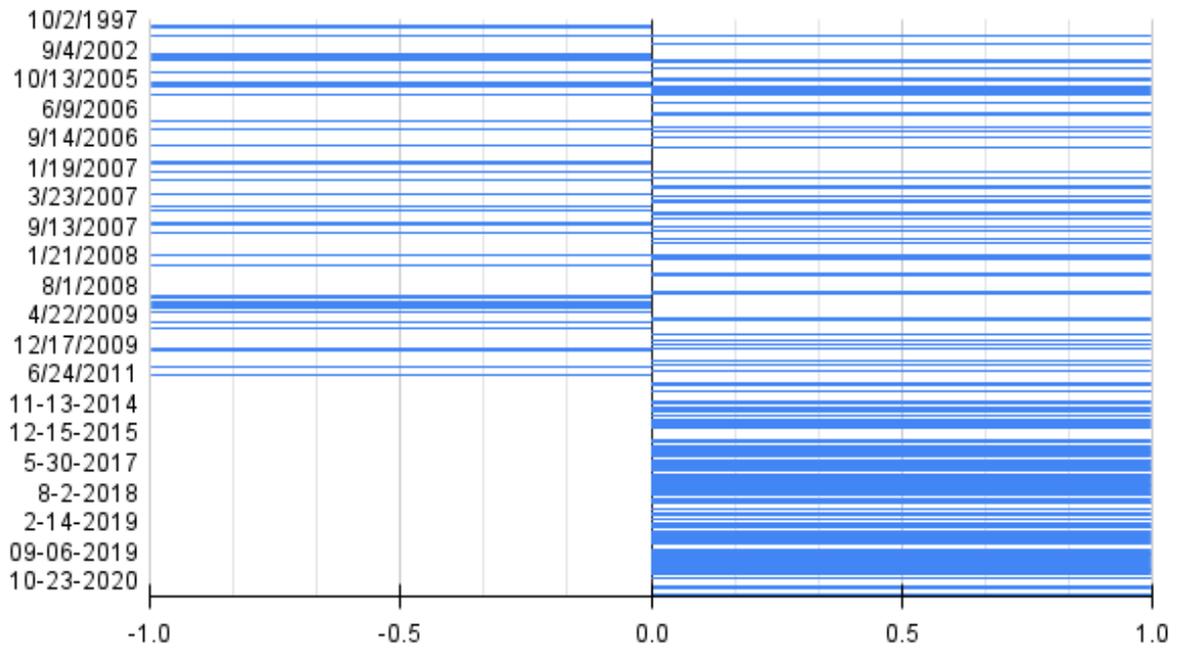


Figure III - Skepticism and support of the concepts of GW/CC over time. 1 indicates support, 0 is neutral tone and -1 is skeptical.