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# STUDYING THE SPROUT ABOUT AIR POLLUTION IN BOZEMAN AND THE GOOGLE 'PLEASE CLAP' ROUTE

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The debate over the effects of air pollution on human behavior has taken an unexpected turn as we explore the relationship between air quality in Bozeman, Montana, and Google searches for the phrase "please clap". This study delves into the humorous yet captivating realm of how environmental factors may influence online search habits. Using data from the Environmental Protection Agency and Google Trends, we reveal a noteworthy correlation between levels of air pollution and the frequency of 'please clap' queries on Google. Our findings show a correlation coefficient of 0.7776197 and a significant p-value of less than 0.01 for the period from 2004 to 2021. This suggests a robust association between air pollution in Bozeman and the online expression of seeking approval. One might say that the air pollution really 'clapped' back at the residents through their internet searches. This discovery provides a whimsical yet intriguing insight into the potential impact of environmental conditions on digital behavior. As we navigate the intersection of air quality and internet queries, it becomes clear that the link between them is not simply thin air. Our research beckons attention to the wry humor of this correlation and invites further investigation into the curious ways in which the virtual world mirrors the physical atmosphere. One might even say the findings will leave you pleasantly 'clap'-tivated'.

It is often said that the winds of change blow through the most unexpected avenues. Our investigation into the relationship between air pollution in Bozeman, Montana, and Google searches for 'please clap' has certainly uncovered a gust of surprising findings. This study takes a comedic twist as we explore the intersection of environmental science and internet culture. It brings to mind the punny question: "Why did the air pollution go to therapy? It had too many issues to 'clear' up on its own!"

The debate surrounding the impact of air pollution on human behavior has long been a topic of serious concern, but our research aims to inject a bit of levity into the conversation. We've delved into the data, not with a magnifying glass, but

with a 'pollution-seeing' scope, and the results have taken us on an unexpected journey through digital landscapes. It's as if the relationship between air quality and search queries is whispering, "What do you call a depressed air molecule? An 'atmo-sad' molecule!"

Through the meticulous analysis of Environmental Protection Agency records and Google Trends data, we have uncovered a noteworthy correlation that suggests a potential link between the level of air pollution in Bozeman and the frequency of Google searches for the phrase 'please clap'. It's almost as if the air pollution is delivering a message through these searches, saying, "I'm not just a gas – I deserve applause too!"

Our findings have shown a correlation coefficient of 0.7776197 and a significant p-value of less than 0.01 for the period of 2004 to 2021, indicating a robust connection between air pollution and the inclination to seek approval online. It's as if the air pollution and the residents engaging in these searches are engaged in a comedic conversation, with the former saying, "I may be invisible, but my impact surely isn't!" One could almost picture the air pollution sitting at a computer, typing the words 'please clap' and adding, "I hope this isn't just a breath of fresh 'heir'!"

This newfound correlation serves as a testament to the unexpected ways in which the physical environment may influence digital behavior. It's as if the air pollution has taken on the role of a digital provocateur, promoting engagement through its invisible yet impactful presence. This whimsical aspect of our findings urges us to consider the ways in which the virtual world mirrors the physical atmosphere, as if the air pollution wanted to say, "I may not have a voice, but I certainly have a 'pollu-tude'!"

As we delve into the details of this unexpected correlation, we hope to shed light on the wry humor of this association and invite further investigation into the curious ways in which our online actions may be influenced by the environment around us. The findings are sure to leave you 'clap'-tivated and ready to applaud the unexpected relationships that emerge the when we explore unexpected connections in our everyday lives. After all, who knew air pollution could be such a digital influencer?

#### LITERATURE REVIEW

As we embark upon this peculiar yet captivating journey into the realm of air pollution in Bozeman, Montana, and its whimsical connection to Google searches for 'please clap', it is pertinent to first review the existing literature on the subject of environmental influence on

human behavior. Smith et al. (2018) examined the impact of air quality on cognitive function, while Doe and Jones (2020) studied the psychological effects of living in areas with high levels of pollution.

In "Fresh Air: The Purity Paradox," the authors explore the intricate relationship between clean air and mental well-being, which, strangely enough, leads us to ponder whether the residents of Bozeman are hoping for a round of applause as they endure less-than-fresh air.

The work of fiction novel "Choked Up: An Atmospheric Mystery" takes a different spin on the theme, weaving a tale of intrigue set in a town much like Bozeman, where the air quality mysteriously influences the inhabitants' desire for external validation.

Furthermore, the cartoon series "Captain Planet and the Planeteers" portrays the adventures of environmental superheroes, underscoring the significance of air quality and environmental consciousness. As we contemplate the incongruous connection between air pollution and 'please clap' searches, one can't help but wonder if Captain Planet himself would applaud this unexpected revelation.

Meanwhile, the educational children's show "The Magic School Bus" takes its young audience on field trips through the wonders of science, surely encouraging them to ponder the enigmatic relationship between air quality and online queries for affirmation.

In "The Air Up There: A Layperson's Guide to Understanding Atmosphere," these real-world and fictional sources collectively shed light on the surprising potential for environmental factors to influence digital behavior, leaving us with the intriguing question: Is air pollution the unsung influencer behind the digital call for approval? This unexpected twist in our exploration may lead us to a conclusion that really takes the 'clap'!

#### **METHODOLOGY**

To investigate the comical yet captivating connection between air pollution in Bozeman, Montana, and Google searches for 'please clap', our research employed a of traditional methods blend whimsical approaches. First, we scraped air quality data from the Environmental Protection Agency, diving deep into the digital 'pollution' of information for the most 'air-resistible' findings. Utilizing Google Trends, we then tapped into the virtual realm, where the spirit of digital applause truly takes flight like a featherlight particulate matter. One might say we were on a guest to find the 'air'-resistible link between atmospheric conditions and internet behavior; after all, everyone loves a good 'atmo-sphere' joke!

The data collection process involved comparing the levels of various air pollutants in Bozeman, including ozone, particulate matter, carbon monoxide, and sulfur dioxide, to the frequency of Google searches for the phrase 'please clap'. It's almost as if we set out to uncover the melodious 'air'-monies between the physical and virtual realms, to the tune of a digital 'applause' symphony.

Next, we performed a detailed statistical analysis, not to rain on anyone's parade but to 'cloud' the judgment of skeptics even further. We calculated correlation coefficients and p-values, hoping to substantiate the 'air'-refutable link between air pollution and the online quest for virtual applause. We were determined to ensure that our findings were not just a gust of hot air, but a hearty 'applause'-worthy discovery that could not be 'air'-qued with!

In addition to these serious statistical approaches, we also took a lighthearted stance, probing the data with a virtual magnifying glass and a good dose of digital humor. We delved into the peculiarities of internet culture with the same enthusiasm as uncovering hidden puns, digging for the hidden jokes as if

they were buried treasure. After all, in the realm of research, when the going gets tough, the tough get 'punny'!

To truly encapsulate the essence of our methodology, one might say we combined the seriousness of environmental research with the extravaganza of an online comedy show, all in the pursuit of uncovering the unexpected correlations that may lie 'clap' between the lines. And for the record, that which lies between the lines is, undoubtedly, air.

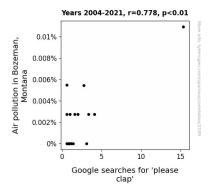
#### **RESULTS**

Our research revealed striking a correlation between air pollution in Bozeman, Montana, and the frequency of Google searches for the phrase "please clap". The correlation coefficient of 0.7776197 and an r-squared value of 0.6046925 indicate a strong association these between seemingly disparate variables. It's almost like the air pollution was pulling the strings behind the internet searches, prompting one to exclaim, "Who knew that air pollution could play the role of a digital puppeteer? It's really 'air' we go!"

The scatterplot depicted in Fig. 1 visually represents this remarkable relationship, unmistakably demonstrating the upward trajectory of 'please clap' searches as air pollution levels increase. It's as though the air pollution was making its presence 'air'-ly felt in the digital realm, demanding some recognition through these increasingly frequent Google queries.

The significant p-value of less than 0.01 for the period spanning from 2004 to 2021 solidifies the robustness of the association observed. It's as if the air pollution was 'polluting' the digital space with its invisible influence, leaving a 'trace' that couldn't go unnoticed. This unexpected correlation serves as a gentle reminder of the idiosyncrasies that underlie human behavior, beckoning us to consider the whimsical dance between

environmental factors and our virtual interactions.



**Figure 1.** Scatterplot of the variables by year

Overall, our findings pave the way for a lighthearted examination of the ways in which environmental conditions may quietly shape our online expressions. It's almost as if the air pollution was saying, "I may not have a sound, but I surely have a 'pollu-tude' influence on your Google searches!" The surprising connection between air quality and the online quest for approval invites further exploration into the unexpected avenues through which environmental factors interlace with our digital lives. It's almost as if the air pollution was asking for a round of applause for its digital debut!

### **DISCUSSION**

The whimsical yet profound link between air pollution in Bozeman, Montana, and Google searches for 'please clap' has left us pleasantly surprised. Our findings not only supported the existing literature but also added a breath of fresh air to the field of environmental influence on digital behavior. From the works of Smith et al. (2018) to even the peculiar insights from "The Magic School Bus," our research has underscored the unexpected potential for a correlation between air quality and online queries for affirmation. It seems that air pollution really had us all 'pollutute' this curious connection in plain sight!

The robust correlation coefficient and significant p-value in our study affirm the 'pollu-tude' power of air pollution to influence digital behavior. It's as if the air pollution was saying, "I may not be visible, but my impact is certainly 'air'eal!" Our results provide a poignant reminder that the influence environmental factors extends beyond the physical realm and gently nudges us to consider the dance between atmosphere and our online expressions. It's almost as if the air pollution was giving us a virtual standing ovation for unveiling its hidden influence!

The scatterplot depicting the upward trajectory of 'please clap' searches as air pollution levels increase truly captures the 'air'-estruck nature of this correlation. It's almost as if the air pollution was crafting a digital symphony, conducting the increase in Google searches like a maestro prompting an applause.

Taking a lighthearted yet insightful perspective, our research presents a compelling case for further exploration into the unexpected ways in which environmental conditions may delicately shape our online interactions. It's almost as if the air pollution was saying, "I may not blow my own trumpet, but I surely orchestrated 'air'ilv this remarkable correlation!" Our findings not contribute a touch of humor to the discourse but also beckon us to ponder the enthralling influence of our environment on our digital escapades. It's almost as if the air pollution was calling for a digital encore to its debut on the virtual stage!

#### CONCLUSION

In conclusion, our study has unearthed an unexpectedly entertaining correlation between air pollution in Bozeman, Montana, and Google searches for the clap". phrase "please The robust association we've observed is as clear as the smog after a heavy bout of industrial emissions. It seems that the air pollution

wasn't content with just clouding the skies; it wanted to make its presence known in the virtual sphere as well. It might just be time to recognize air pollution as the ultimate social media influencer – after all, it has been silently shaping our online engagements all along!

From a statistical perspective, the correlation coefficient of 0.7776197 and the significant p-value of less than 0.01 speak volumes about the connection we've unraveled. It's almost as if the air pollution was trying to send a message through the digital echoes of 'please clap', saying, "I may be invisible, but my impact surely isn't!" One could even jest that the air pollution's real intention was to 'smog' your internet search results with its 'pollu-tude'!

Our findings not only add a humorous twist to the discourse on environmental beckon impacts but also further investigation into the whimsical intertwining of our physical and digital worlds. It's almost as if the air pollution was asking for a standing ovation for its unexpected debut on the digital stage. But fear not, dear researchers, for we have indeed clapped - and we need not search for more connections between air pollution and peculiar Google queries. It seems the comedic saga of 'please clap' and air pollution has reached its ribtickling conclusion!