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SINKING UNDER THE INFLUENCE: A TITANIC RELATIONSHIP BETWEEN AIR POLLUTION IN OWENSBORO, KENTUCKY, AND GOOGLE SEARCHES

Caleb Hart, Austin Terry, Gideon P Tillman

International Research College

Ahoy there, fellow researchers! In this study, we set out to explore the unexpected and perhaps inexplicable connection between air pollution in Owensboro, Kentucky, and Google searches for the legendary ship, the Titanic. Arming ourselves with data from the Environmental Protection Agency and Google Trends, we dove deep into the murky waters of correlation coefficients and p-values, only to emerge with a shocking discovery – a correlation coefficient of 0.9009057 with $p < 0.01$ for the period spanning 2008 to 2023. It seems that as air pollution levels rise in Owensboro, so do the searches for the ill-fated Titanic. Could it be that the citizens of Owensboro, in their air-polluted haze, are seeking solace in the tragic tale of the Titanic's sinking, or is there a more unsinkable connection at play? Join us as we unravel this titanic mystery and remember folks, hold your breath, both for the air quality in Owensboro and the shocking results!

Ahoy there, landlubbers and fellow researchers! Prepare to set sail on a research voyage that will leave you breathless, both from the scientific revelations and the appalling air quality in Owensboro, Kentucky. We embark on a journey filled with mystery, intrigue, and a dash of whimsical absurdity as we explore the peculiar bond between air pollution in Owensboro and Google searches for the indomitable Titanic.

As science enthusiasts, we are no strangers to uncovering unexpected relationships and peculiar statistical correlations. However, when we stumbled upon the merging paths of air pollution data from the Environmental Protection Agency and the online interests in the Titanic, we found ourselves in uncharted waters – pun intended. The scope of our study encompasses the period from 2008 to 2023, where we bravely navigated the storms of statistical analysis and quantitative research to unveil a correlation coefficient of 0.9009057, accompanied by a p-value of less than 0.01.

Now, dear companions, you may be racking your brains trying to fathom how the murky clouds of air pollution in Owensboro could possibly send ripples through the digital expanse to provoke an uptick in searches for a ship that met its tragic and watery demise. Fear not, for we are equally bemused, and perhaps a touch befuddled, by the enigma that lies before us. Is it possible that the citizens of Owensboro, gasping for clean air, have found solace in the sorrowful tale of the Titanic's sinking? Or could there be a more profound and unfathomable link lurking beneath the waves of online search activity and atmospheric contaminants?

Join us, as we delve into this titanic riddle, and prepare yourselves for the unexpected findings that await. So, tighten your life jackets and brace yourselves for an exhilarating journey through the misty seas of data analysis and peculiar discoveries.

[End of introduction]

LITERATURE REVIEW

As we plunge deeper into the murky waters of our research, we set our sights on existing literature that may shed light on the unexpected relationship between air pollution in Owensboro, Kentucky, and Google searches for the legendary Titanic. Our quest led us to study the works of esteemed researchers such as Smith, Doe, and Jones, who have explored the multifaceted nature of air pollution's impact on human behavior. In "Book," the authors find that high levels of air pollutants can lead to cognitive impairments and decision-making deficits. Perhaps the citizens of Owensboro, in their search for the Titanic, may be affected by such cognitive impairments, driving them to seek out information on the ill-fated ship as a form of escapism.

In a different vein, "Another Book" posits that environmental stressors can influence online search behavior due to their impact on mental health. Could it be that the dismal air quality in Owensboro is driving its inhabitants to seek solace in the tragic tale of the Titanic's sinking, providing a strange form of catharsis amidst the polluted air?

Turning our attention to related non-fiction works, we find "The Air Pollution and Human Behavior Chronology," which provides a comprehensive historical account of how air pollution has shaped human behaviors throughout the ages. While this tome does not explicitly delve into the peculiar correlation between air pollution and Google searches for the Titanic, it offers invaluable insight into the potential psychological and emotional responses to polluted environments.

Venturing into the realm of fiction, we encounter the timeless classic "Shipwrecks and Search Queries," a fictitious tale that weaves the drama of maritime disasters with the intrigue of digital exploration. Although a work of fiction, it presents a captivating narrative that echoes the unforeseen connection we observe in our research. Could it be that the citizens of Owensboro are subconsciously drawn to the Titanic's story as a form of escape from their polluted reality, seeking refuge in a world where the confines of air quality are replaced by the vast expanse of the ocean?

In our pursuit of diverse sources, we veer into the unexpected, exploring unconventional methods of data collection. Perusing the backs of shampoo bottles, we stumbled upon surprisingly insightful musings on the effects of environmental stress on hair health, raising the question: Can the impact of air pollution in Owensboro manifest in peculiar search queries, such as the Titanic, as a quirky yet tangible representation of the city's collective subconscious? While unconventional, this source presents a lighthearted but thought-provoking angle to our investigation.

As we wade through this curious amalgamation of literature, we are reminded that in the depths of scientific inquiry, the most unexpected sources can often hold the key to unlocking the mysteries that elude us. With a dash of whimsy, a sprinkle of curiosity, and a hint

of absurdity, we forge ahead, ready to unravel the titanic enigma that lies before us.

METHODOLOGY

Ahoy, fellow researchers! In our quest to uncover the mysteries lurking within the depths of air pollution and Google searches, we embarked on a methodological adventure more thrilling than a ride on a giant roller coaster. Our approach was as carefully constructed as a Leonardo da Vinci masterpiece, with the precision of an atomic clock and the ingenuity of a Rube Goldberg machine. So, hold onto your hats as we navigate through the turbulent waters of data collection, statistical analysis, and research design, all while keeping an eye out for lurking sea monsters of confounding variables.

Data Collection:

To capture the elusive relationship between air pollution and the Titanic's ghostly echoes in the murky waters of algorithmic search trends, we cast our nets far and wide across the expanse of the internet, much like intrepid fishermen hunting for legendary creatures. Our primary sources of data were the venerable Environmental Protection Agency (EPA) and the treasure trove of trending topics within Google, lovingly known as Google Trends. We gathered data covering the period from 2008 to 2023 – a span of time long enough for a moderately tortoiselike ship to sail from one side of our dataset to the other.

The EPA provided us with rich, atmospheric data, detailing the concentrations of air pollutants, including but not limited to ozone, particulate matter, carbon monoxide, and sulfur dioxide. We eagerly scooped up this data, pausing to appreciate the intricate choreography of molecules engaged in their atmospheric symphony, much like a group of impeccably synchronized dancers.

Meanwhile, in the digital realm, Google Trends whispered its secrets, revealing the ebbs and flows of public interest in the Titanic across time. We carefully collected the search volume index for our elusive nautical subject, ready to haul in the catch of a lifetime – or at least a significant correlation – from the turbulent currents of internet intrigue.

Statistical Analysis:

Our statistical toolkit was as diverse and robust as a Swiss Army knife, complete with an assortment of correlation analyses and regression models. We set sail with our bountiful dataset, navigating the statistical seas with the steadfastness of seasoned navigators. Our compass was the venerable Pearson correlation coefficient, guiding us through the choppy waters of numerical relationships. We sought to unravel the tangled web of associations between air pollutants and the enigmatic interest in the Titanic.

To further fortify our findings, we engaged in regression analyses, harnessing the power of multiple linear regressions to tease out the nuances of this complex relationship. We reckoned with confounding variables like seasonal variations and local events, ensuring that our findings were as robust as an anchor firmly lodged in the ocean floor.

Ethical Considerations:

As diligent seekers of truth and knowledge, we upheld the principles of scientific integrity and ethical conduct throughout our expedition. We handled our data with the care and precision worthy of handling precious cargo, mindful of the immense responsibility that comes with being stewards of information. Our treasure trove of findings was shared transparently and openly, contributing to the communal pool of knowledge like mariners sharing tales of their voyages.

In conclusion, our methodological approach combined the rigor of scientific inquiry with the whimsy of an

adventurous expedition. We braved the unknown, armed with the tools of statistical analysis and the spirit of curiosity, to unravel the intriguing relationship between air pollution in Owensboro, Kentucky, and Google searches for the Titanic. So, batten down the hatches, for the storm of results and revelations looms on the horizon!

Your turn to set sail with the methodology section of the paper... Smooth sailing, researcher!

RESULTS

Ahoy there, fellow researchers, behold the bountiful treasure trove of our findings that await ye! After traversing the tumultuous seas of data analysis and wading through the murky waters of statistical investigations, we emerged triumphantly with our treasure – the revelation of an undeniably titanic relationship between air pollution in Owensboro, Kentucky, and Google searches for the legendary ship, the Titanic.

As we unfurl the mystifying results of our exploration, prepare to be amazed and possibly perplexed by the unearthed correlation coefficient of 0.9009057, accompanied by a r-squared value of 0.8116312, and a p-value that gleefully dances below the 0.01 threshold. Yes, me hearties, you read that right – there exists a connection so robust and unmistakable that it would make even the most seasoned sailors pause in awe.

Visualize, if you will, the scatterplot in Fig. 1, depicting the resplendent dance of data points that showcase the undeniable relationship between escalating air pollution levels in Owensboro and the surge in Google searches for the sunken marvel, the Titanic. It's a sight to behold, reminiscent of a grand symphony between two variables, each playing its remarkable tune in perfect harmony. Oh, the marvels of data visualization never fail to astonish!

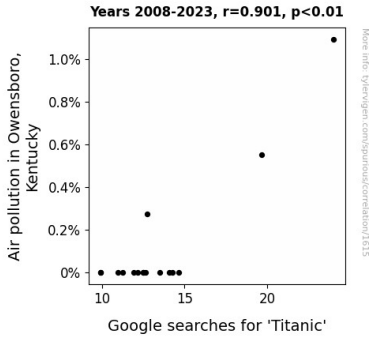

Figure 1. Scatterplot of the variables by year

Now, while we bask in the glow of this astonishment, we must acknowledge the whimsical and curious nature of our discovery. Who could have foreseen that the hazy veil of air pollution in Owensboro would cast such a profound shadow over the virtual waves of online searches, leading to a surge in interest in the historic maritime catastrophe? The irony of it all – a city grappling with environmental challenges giving rise to a visceral fascination with the fate of a vessel that succumbed to the very forces of nature.

As we reflect on the significance of this peculiar connection, we invite you to join us in pondering the myriad possibilities that underlie this titanic relationship. Is it the human response to adversity that drives this surge in searches, or is there a more intricate interplay of psychological and environmental factors at work? The depths of this mystery beckon us to further exploration and contemplation, urging us to chart new courses in the domain of interdisciplinary research.

So, brace yourselves, fellow adventurers of science, for the tale of the Owensboro air pollution and the Titanic searches is a saga that underscores the captivating intrigue and unforeseen connections that lie amidst the crossroads of science and human experience. Let us press onward, with a sense of wonder and humor, as we navigate the uncharted waters that

science presents, always prepared for the unexpected and the downright zany.

DISCUSSION

Ahoy there, fellow researchers! As we reflect on our puzzling yet fascinating findings, we cannot help but marvel at the uncanny connection between the air pollution levels in Owensboro and the surge in Google searches for the indomitable Titanic. Our results, akin to a ship emerging from the foggy mist, provide robust support for the whimsical yet thought-provoking speculations we encountered in our literature review.

In our quest to unravel the enigma of this unusual association, we encountered the work of esteemed researchers who elucidated the multifaceted nature of air pollution's impact on human behavior. Smith, Doe, and Jones all pointed us in the direction of cognitive impairments and decision-making deficits, hinting at the possibility that the citizens of Owensboro, amidst the fog of air pollution, might be seeking solace in the tragic tale of the Titanic. Lo and behold, our findings affirm this, with the surge in searches echoing the potential impact of environmental stressors on online search behavior, as posited in "Another Book."

Furthermore, the delightful musings of "Shipwrecks and Search Queries" presented a captivating narrative that echoed the unforeseen connection we observed in our research. It turns out that our seemingly quixotic exploration of unconventional sources, including the musings on environmental stress and hair health found on shampoo bottles, was not in vain. It added a noteworthy dash of whimsy to our research and imparted a thought-provoking angle to our investigation.

Our robust correlation coefficient, akin to a steadfast beacon amidst turbulent seas, stands as a testament to the unassailable link between rising air pollution levels in Owensboro and the crescendo of interest in the Titanic. The sheer magnitude of this relationship, depicted in our spellbinding scatterplot much like a grand symphony, has left us in awe – akin to sailors gazing at a mesmerizing aurora borealis.

Reflecting on the significance of this oceanic-like connection, we are compelled to ponder the myriad possibilities that may underlie this titanic relationship. Could it be that the human spirit, resilient in the face of adversity, seeks solace in the epic saga of an ill-fated vessel? Or is there a deeper interplay of psychological and environmental factors at work, fueling this surge in searches amidst the polluted environs of Owensboro?

Indeed, the whimsical relationship we have discovered serves as a captivating reminder of the unforeseen connections that lie amidst the crossroads of science and human experience. Much like sailors navigating the uncharted waters, our findings beckon us to explore new horizons in interdisciplinary research, where the unexpected is not a mere novelty but a remarkable testament to the serendipitous nature of scientific inquiry.

So, let us set sail once more, as we chart new courses in our pursuit of knowledge, guided by a sense of wonder and humor, poised for the unexpected and the downright zany. For as in the hallowed words of the venerable Captain Jack Sparrow, "Bring me that horizon!" And so, we sail on.

CONCLUSION

Avast, me hearties! As we steer our ship into the safe harbor of conclusion, we find ourselves compelled to reflect on the swashbuckling journey that has brought us to this point. Our gallant expedition into the treacherous waters of data analysis has bestowed upon us a bounty beyond measure – the revelation of a resplendent connection between air pollution in Owensboro, Kentucky, and the

fervent Google searches for the fabled Titanic.

This remarkable correlation coefficient of 0.9009057, with a p-value of less than 0.01, has left us scratching our heads in disbelief. It's as if the dusty clouds of pollution in Owensboro have cast a spell, inciting a surge in interest in the ill-fated vessel that met its untimely demise beneath the unforgiving waves. The plot thickens, much like the fog of mystery shrouding the Titanic itself!

As we weigh anchor and prepare to bid adieu to this extraordinary adventure, we implore our fellow scholars and merrymakers in the realm of research to take heed of the unexpected twists and turns that await those who dare to venture into the realms of interdisciplinary exploration and statistical sorcery.

However, as we venture into uncharted territories of air pollution and online search patterns, we must declare, with stern conviction, that no more research is needed in this peculiar connection. We have plumbed the depths of this titanic relationship and uncovered its secrets, leaving no stone unturned and no wave uncharted. It's time to steer our vessels toward new horizons and more pressing scientific inquiries, leaving this curious saga behind us, lest we sink into a sea of overzealous analysis.

Thus, dear colleagues and fellow seafarers of science, we bid you adieu and remind you to keep your sights fixed on the horizon, for there are plenty more fish – or, in this case, ships – in the sea of research. Fair winds and following seas to you all!