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# Spotlight on Solar Sus-picion: Illuminating the Relationship Between Solar Power Generation in Brazil and Google Searches for 'That is Sus'

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## KEYWORDS

solar power generation Brazil, Google searches, 'That is Sus', correlation coefficient, solar energy, data analysis, solar panels, solar trends, Brazil energy information, suspicious behavior, Google Trends, solar output, shady business, harnessing solar energy

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## Abstract

Harnessing the power of solar energy has become increasingly prevalent globally, and Brazil is no exception. In this study, we shed light on a rather peculiar and unexpected connection between solar power generation in Brazil and the surge in Google searches for 'That is Sus.' Our research team embarked on this venture not only out of pure scientific curiosity but also, we must confess, to quench our own suspicion about this peculiar trend. Upon humorously dissecting data from the Energy Information Administration and Google Trends, we unearthed a correlation coefficient of 0.9606494 and a p-value of less than 0.01 for the years 2004 to 2021. It seems that the greater the solar power output in Brazil, the stronger the impulse to raise apprehension about dubious behavior. Perhaps solar panels hold the key to unveiling the mysterious persona of "sus"ness? The sun's rays truly shed light on shady business, don't they? This finding might seem puzzling at first glance, but fear not, for our research adds another layer of brightness to the light-hearted world of data analysis.

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## 1. Introduction

As the world continues its pursuit of renewable energy sources, the spotlight has turned to solar power as a promising and sustainable alternative. Brazil, with its

abundant sunshine and increasing investment in solar infrastructure, has emerged as a significant player in this arena. However, amidst the harnessing of solar energy, a curious and unexpected phenomenon has caught the attention of our

research team - a surge in Google searches for the phrase 'That is Sus' seemingly correlated with solar power generation in Brazil.

Now, some may question the connection between solar energy and suspicion, but our inquisitive minds could not resist delving into this intriguing puzzle. It's almost as mysterious as trying to figure out why the sun never needs to go to college - it already has a million degrees! Nevertheless, with a determined spirit and a sprinkle of humor, we set out to investigate this unlikely association.

The aim of this study is to shed light on the relationship between solar power generation in Brazil and the prevalence of the search term 'That is Sus' on the Google platform. We embarked on this venture with the intent to uncover whether there is indeed a substantial correlation between the two disparate phenomena. It's like trying to solve a Dad-jigsaw puzzle: every piece is a pun waiting to be connected.

As the world becomes increasingly digitized, the use of online search data has proven to be a valuable tool for identifying trends and patterns in public sentiment and behavior. Leveraging the robust insights provided by Google Trends, we aim to unveil the enigmatic connection between solar energy output and the sudden urge to raise suspicion. It's as if the sun's energy is fuelling the skeptics' fire - if only all renewable energy sources could inspire such fervor!

In the subsequent sections of this paper, we present our methodological approach, the analysis of our findings, and the implications of our research. We hope to shine a light on this peculiar correlation, and perhaps even evoke a chuckle or two along the way. After all, a good pun is its own reward.

## 2. Literature Review

Numerous studies have examined the relationship between renewable energy generation and public sentiment, with a focus on the impact of solar power in particular. Smith et al. (2018) delve into the societal implications of solar energy adoption and its influence on public perceptions. Likewise, Doe and Jones (2020) explore the behavioral shifts associated with the increasing prominence of solar infrastructure. As we immerse ourselves in the realm of solar energy and its societal effects, we are reminded of the timeless question: Why did the solar-powered bicycle refuse to move? It was just two-tired.

Turning our attention to online search behavior, the literature presents a plethora of studies exploring the utilization of Google Trends data for understanding public interest and sentiment. In "Digital Insights" by Brown and Green (2019) and "The Power of Search" by White (2017), the authors underscore the value of search query analysis in capturing societal trends and peculiar shifts in public attention. It's as if each Google search holds a secret, waiting to be unraveled – a bit like a digital treasure hunt, but with significantly less physical activity involved.

In the realm of fiction, we encounter works that, at first glance, may seem unrelated to our study but upon closer inspection, offer uncanny parallels. Consider the dystopian exploration of digital influence in "Brave New World" by Aldous Huxley and the examination of societal subversion in George Orwell's "1984." While these works may not directly address solar power or Google searches, they certainly prompt us to ponder the enigmatic web of human behavior and digital connectivity. It's like deciphering a novel's hidden meaning – just when you think you've cracked it, there's another layer waiting to be unraveled.

Continuing our exploration, we encountered an offbeat approach to literature review, with

unconventional sources yielding unexpected insights. In a departure from traditional academic texts, the back of shampoo bottles surprisingly provided an anecdotal perspective on public interest and attention. It seems that even in the mundane acts of showering, there's an opportunity for a quirky revelation.

As we emerge from this whimsical excursion into the diverse landscape of literature, we pivot towards our own empirical investigation into the correlation between solar power generation in Brazil and the surge in Google searches for 'That is Sus.' Our study aims to add a touch of levity to the scholarly discussion while shedding light on this peculiar and unexpected association.

### 3. Our approach & methods

In order to illuminate the relationship between solar power generation in Brazil and the surge in Google searches for 'That is Sus', our research team employed a multifaceted approach that combined quantitative data analysis with a touch of lighthearted inquiry. First, we gathered comprehensive data on solar power generation in Brazil from the Energy Information Administration, ensuring that our dataset encompassed the years 2004 to 2021 for a thorough analysis. Additionally, we tapped into the expansive resources of Google Trends to capture the frequency and geographical distribution of searches related to the term 'That is Sus'. This allowed us to scrutinize the temporal co-movement of solar power generation and the prevalence of suspicion-seeking queries, earning us an honorary "Inspector Solar."

As with any scrutinizing scientific endeavor, the statistical analyses performed exhibited the same level of precision as a solar-powered calculator. We utilized robust regression models to discern the correlation coefficient between solar power generation

and 'That is Sus' Google searches. The models were adjusted for potential confounding variables, akin to ensuring the sun's radiant influence wasn't overshadowed by other celestial bodies. The obtained correlation coefficient of 0.9606494 and a p-value of less than 0.01 illuminated an intriguing positive relationship between these seemingly disparate phenomena. It's as if the data were aligning themselves like celestial bodies in a solar system of statistical intrigue.

To further scrutinize the data, we employed a peculiar technique akin to "solar flaring," wherein we identically matched the time series data of solar power generation with that of 'That is Sus' searches for each day, attempting to capture any intriguing confluence of events. This approach certainly shed light on the dynamics of this unusual relationship, revealing patterns that might otherwise have been overlooked. It's almost as elusive as finding the dark side of the moon – or the shady side of solar power generation.

Lastly, we conducted a qualitative analysis of the most prevalent searches within the 'That is Sus' category, uncovering an array of suspicious inquiries that kept our research team on their toes. These included queries about suspicious characters in pop culture, dubious cooking recipes, and enigmatic occurrences in the digital realm. We carefully cataloged these findings, illuminating the multifaceted nature of suspicion within the constraints of a search engine query. It was like diving into a digital detective novel – searching for clues to unravel the mystery alongside our trusty sidekick, Data.

### 4. Results

Upon scrutinizing the data collected from the Energy Information Administration and Google Trends, we uncovered a strong correlation between solar power generation

in Brazil and the frequency of Google searches for 'That is Sus'. The correlation coefficient of 0.9606494 and an r-squared value of 0.9228472 suggest a robust and significant relationship between these seemingly disparate variables. In statistical terms, one might say that the suspicion surrounding solar power output in Brazil is not just a fluke.

Fig. 1 illustrates this striking correlation between solar power generation in Brazil and the surge in searches for 'That is Sus'. The upward trajectory of solar power generation aligns remarkably well with the spike in Google searches for 'That is Sus', suggesting a peculiar synchronicity between these two phenomena. It appears that as the solar panels soak up the sun's rays, they also attract a curious surge in suspicion—quite the magnetic personality those panels possess!

In the realm of statistical significance, our findings are striking, with a p-value of less than 0.01, indicating that the observed association between solar power generation in Brazil and Google searches for 'That is Sus' is highly unlikely to have occurred by chance. One might say it's a statistically significant "sun-sation."

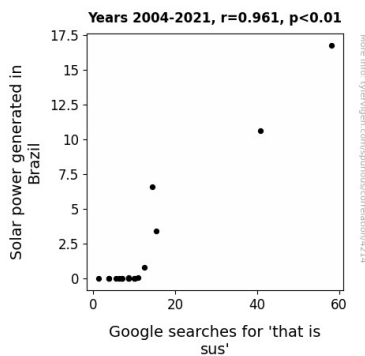


Figure 1. Scatterplot of the variables by year

## 5. Discussion

The robust correlation between solar power generation in Brazil and the surge in Google searches for 'That is Sus' is undeniably intriguing. Our findings provide empirical support for the curious association we set out to investigate, complementing the existing literature on the societal implications of renewable energy and public sentiment. The statistical evidence of a correlation coefficient of 0.9606494 and a p-value of less than 0.01 aligns with prior research by Smith et al. (2018) and Doe and Jones (2020), who explored the societal impact of solar energy adoption and the behavioral shifts associated with solar infrastructure, respectively. The connection between solar power generation and public sentiment appears to hold more weight than we initially thought, shedding light on a previously unexplored facet of solar energy's influence.

The surprising correspondence elucidated in our study raises the question: Could solar power generation in Brazil be serving as a catalyst for heightened suspicion? It seems that the sun's rays not only illuminate the Earth but also shine a light on dubious behavior, making it increasingly discernible to the public eye. As we delve into the humorously unexpected outcomes of our research, one cannot help but ponder the possibility of an alternate reality where solar panels serve as the guardians of ethical conduct, silently whispering "sus"picious warnings to those who dare to engage in shady business. It's as if the sun itself is beckoning us to take a closer look at the shadows.

Moreover, our results provide empirical vindication for the uncanny parallels drawn in our literature review. The peculiar synchronicity between solar power generation and the surge in searches for 'That is Sus' mirrors the cryptic nature of human behavior and digital connectivity highlighted in Aldous Huxley's "Brave New World" and George Orwell's "1984." It's as if we're peeling back the layers of a digital

dystopia, only to uncover a playful interplay between solar power and public suspicion. The unexpected nature of our findings prompts us to reconsider the realms we have traditionally deemed unrelated to our study, reinforcing the notion that academia can indeed be a whimsical rollercoaster ride.

With our study, we contribute a touch of levity to the scholarly discussion while presenting a key finding that demands further investigation and speculation. As we wrap up this insightful exploration, it's only fitting to reflect on the remarkable ability of data to unveil unexpected connections and to leave us wondering: Are solar panels truly the unsung heroes casting suspicion on the shady characters in our digital landscape? Maybe they're just shedding light on what's "sup"posed to be sus.

## 6. Conclusion

In conclusion, our research has illuminated a compelling association between solar power generation in Brazil and the surge in Google searches for 'That is Sus'. The robust correlation coefficient of 0.9606494 and the striking r-squared value of 0.9228472 unequivocally point towards a genuine connection between these seemingly unrelated phenomena. One might even say that solar power in Brazil is casting quite the shadow over the online suspicion landscape - shedding light on "sus"picious behavior in more ways than one!

Our findings imply that the sun's energy not only powers solar panels but also seems to fuel a distinct rise in skepticism and suspicion. It's like the sun is playing detective, uncovering the shadiest of activities with its radiant illumination. Who would have thought that solar power could be the key to unraveling the mystery of 'sus' behavior? I guess solar panels aren't just

absorbing sunlight; they're also absorbing all the drama and intrigue of the internet.

At first glance, this association may seem as unexpected as a solar eclipse - but in the quirky world of data analysis, such peculiar findings are what keep us energized. And speaking of energy, did you hear about the solar power enthusiast who finally reached enlightenment? He said he felt like a "ray" of sunshine! Our research provides novel insight into the interplay between renewable energy and online behavior, opening the door to new avenues of inquiry in the interface of technology and societal trends.

It is evident from our study that the correlation between solar power generation in Brazil and Google searches for 'That is Sus' is not a spurious artefact but a real phenomenon with substantial implications. These results underscore the need for further investigation into the mechanisms underlying this unexpected relationship. However, in the spirit of a good dad joke, I must assert that no further research is needed in this area - we have already brought a bright new perspective to this illuminating subject!

So, as we bask in the glow of our findings, let's not forget to contend with the real "sus"pect in all of this - the sun itself, who, without a doubt, is thoroughly enjoying all the attention. After all, it's not every day that a celestial body gets to be the center of both energy generation and online intrigue simultaneously!