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# Rain or Shine: The Dampening Effect of Berlin Rainfall on Fidget Spinner Popularity

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## Abstract

The connection between environmental factors and internet memes has been a topic of growing interest in the field of digital sociology. This study investigates the relationship between precipitation in Berlin and the popularity of the 'fidget spinner' meme. Using data from the NOAA National Climate Data Center and Google Trends, we conducted a comprehensive analysis covering the period from 2017 to 2022. Our findings revealed a significant correlation, with a correlation coefficient of 0.9166477 and  $p < 0.05$ , indicating a strong association between rainfall in Berlin and the prevalence of the 'fidget spinner' meme. Remarkably, each increment in precipitation was associated with a proportional increase in online searches for fidget spinner content. Rain in a city might make people look for fixed spinner in preference to their bearings. These results not only shed light on the impact of meteorological conditions on internet trends but also provide valuable insights for the development of targeted digital marketing strategies and meme propagation tactics. Nonetheless, as with any correlation, we must exercise caution in inferring causation, despite the temptation to attribute the rise and fall of fidget spinning to the whims of Berlin's weather.

## 1. Introduction

Rain, rain, go away, come again another day—unless, of course, you're a digital sociologist with a keen interest in the interplay between weather patterns and internet phenomena. The meteorological musing on the connection between rainfall in Berlin and the fidget spinner meme is more than just a whimsical inquiry; it delves into the sophisticated and often surprising dynamics of online culture and its relationship to environmental factors.

The emergence of the fidget spinner as an internet sensation in 2017 spun its way into the hearts and pockets of millions, only to swiftly fade into the background. Much like the fidget spinner itself, the meme associated with it exhibited a whirlwind rise and fall, captivating the attention of individuals around the globe before gradually losing its momentum. Some might say its popularity "dampened" quicker than expected. Speaking of which, did you hear about the guy who invented the knock-knock joke? He won the "no-bell" prize.

Our investigation seeks to unravel the not-so-trivial pursuit of understanding whether the frequency and volume of Berlin rain impacts the intensity of fidget spinner meme activities. To explore this connection, we harnessed the digital power of Google Trends and the historical precipitation data from the NOAA National Climate Data Center. Like a seasoned meteorologist analyzing cloud formations, we

meticulously scrutinized the data from 2017 to 2022, searching for trends and correlations that might just make you want to "spin" your head.

A correlation coefficient that could make even the most stoic statistician crack a smile emerged—a whopping 0.9166477,  $p < 0.05$ ! This statistical bonanza unveiled a robust association between the rainy days in Berlin and the fervor with which denizens of the digital world indulged in fidget spinner-related content. It seems that Berlin's rainy disposition had an uncanny ability to "spin" web users' interests toward this sensory toy-turned-meme. It's almost as if the city's precipitation acted as a digital magnet, gleefully pulling in individuals seeking to pit their fidget spinners against the rainy-day doldrums.

However, as with all things that glimmer with statistical allure, we must exercise caution in jumping to conclusions about causation, as tempting as it may be to cast Berlin's rain as the unsuspecting puppet-master behind the ebb and flow of the fidget spinner meme. Despite the correlations, navigating the terrain of internet culture and its complex interactions with environmental variables calls for a level of caution akin to navigating a room strewn with fidget spinners—watch your step carefully, or you might just end up spinning in circles.

## 2. Literature Review

The connection between weather patterns and internet phenomena has been a subject of increasing interest in recent years. In "Weather and Web: Exploring the Influence of Meteorological Conditions on Online Trends," Smith and Doe (2018) investigated the impact of weather on internet search trends, highlighting the potential influence of climate on the popularity of online content. Meanwhile, Jones (2020) delved into the realm of digital sociology in "Online Culture and Environmental Factors," discussing the intricate relationship between environmental conditions and digital culture.

Turning now to the role of memes in online culture, "The Meme Manifesto" by Digital and Nerdy (2016) provided a comprehensive analysis of the factors influencing the rise and fall of internet memes. In a

similar vein, "Memes and Meteorology: Unraveling the Digital Doppler Effect" by Social Media Savant (2019) explored the connection between meteorological variables and the propagation of online memes, offering intriguing insights into the potential impact of weather on digital trends.

Shifting gears to the world of fiction, the renowned novel "Cloudy with a Chance of Meme-balls" by Digital Doodler (2003) introduced readers to a whimsical tale of internet memes and atmospheric phenomena, blending humor and imagination to create an engaging narrative. Furthermore, "The Rainy Day Meme Chronicles" by Cyberspace Storyteller (2017) presented a fictional exploration of the interplay between rainy weather and digital memes, weaving together a captivating story that captured the imagination of readers.

Beyond traditional literature, the present authors also ventured into unconventional sources to gain additional perspectives on the subject matter. A thorough examination of CVS receipts revealed cryptic messages hidden within the mundane details of everyday purchases. The connection between rain in Berlin and the popularity of the 'fidget spinner' meme became surprisingly evident through the cryptic codes and enigmatic symbols printed on these seemingly innocuous slips of paper. It seems that even the most unexpected sources can offer illuminating insights when it comes to unraveling the mysteries of internet culture and meteorological influences.

## 3. Methodology

The methodology employed in this study harnessed a combination of digital tools and meteorological data to construct a comprehensive and meticulously crafted analysis of the relationship between precipitation in Berlin and the vigor of the fidget spinner meme. Our research team engaged in a somewhat less glamorous version of a treasure hunt, searching for data nuggets across the vast expanse of the internet, with an emphasis on information procured from the NOAA National Climate Data Center and Google Trends. It was almost as if we were hunting for hidden treasures amidst the digital

deluge, hoping to strike statistical gold. Did you hear about the weather forecaster who broke wind live on TV? He was immediately asked to leave the set due to a severe case of "inappropriate meteorology."

The analysis covered a five-year period, spanning from 2017 to 2022, allowing for a robust exploration of the dynamics between meteorological conditions and online phenomena. The use of this extended timespan enabled us to capture the full spectrum of the fidget spinner craze, from its meteoric rise to its gradual descent into digital antiquity. It's as if we embarked on a digital time-travel expedition, observing the ebb and flow of fidget spinner fervor against the backdrop of Berlin's rainy skies.

To quantify the prevalence of the fidget spinner meme, we turned to the digital juggernaut, Google Trends, as our primary source of data. In a manner akin to a digital detective sifting through virtual footprints, we meticulously extracted relevant search interest data for the term "fidget spinner" within the geographical bounds of Berlin. It's almost as if we were searching for the elusive fidget spinner in the labyrinth of digital data, hoping to unlock the secrets of its meteoric rise and precipitous fall. Did you hear about the mathematician who is afraid of negative numbers? He'll stop at nothing to avoid them.

In tandem, we delved into the meteorological archives of the NOAA National Climate Data Center, unearthing precipitation data for Berlin during the designated timeframe. This meticulous excavation of meteorological records provided the necessary meteorological context to ascertain the frequency and volume of rainfall in the city. It's almost as if we were digging through virtual mud in search of the drops of rain that may have influenced the digital landscape of Berlin.

Once the data on fidget spinner interest and rainfall levels were secured, we set about the rather complex challenge of statistical analysis. We opted for several statistical methods, including a Spearman correlation analysis, to unveil potential relationships and trends between precipitation in Berlin and the popularity of the fidget spinner meme. Like a digital artist painting correlations with statistical brushes, we sought to unveil the subtle connections between weather patterns and online trends. Did you hear about the statistician who drowned in a river that

was, on average, three feet deep? It seems he underestimated the mean and overestimated the mode.

Furthermore, to account for potential confounding variables and to strengthen the validity of our findings, we employed a regression analysis to explore the extent to which rainfall in Berlin could explain the variance in fidget spinner meme popularity. It's almost as if we were navigating a statistical maze, attempting to discern the impact of raindrops on the digital fervor for fidget spinners. Did you hear about the statistician who was in plane that crashed with 8 other statisticians inside? He was the only survivor, but only because he had the foresight to buy a parachute for himself.

In summary, the methodology adopted in this study blended digital dexterity, meteorological mindfulness, and statistical sleuthing to unravel the intricate connection between Berlin's rainfall and the ebb and flow of the fidget spinner meme. It's almost as if we were engaging in a digital waltz, seeking to capture the rhythm of Berlin's rain in the digital footprints of fidget spinner enthusiasts.

#### 4. Results

The data analysis revealed a strong correlation coefficient of 0.9166477 between the amount of rainfall in Berlin and the popularity of the 'fidget spinner' meme over the period from 2017 to 2022. This corresponded to an r-squared value of 0.8402431, indicating that approximately 84% of the variation in the 'fidget spinner' meme could be explained by the variation in Berlin's rainfall. It seems that as the rain poured down, interest in fidget spinners went up, akin to a digital dance between weather patterns and internet trends. It appears that Berlin's precipitation had a remarkable influence on the ebb and flow of the fidget spinner phenomena, perhaps making web users yearn for something to spin on dreary days.

The p-value of less than 0.05 signified a statistically significant relationship, reinforcing the robustness of the observed association. This statistical evidence suggests that it is highly unlikely that the observed correlation between Berlin's rainfall and the 'fidget spinner' meme popularity occurred by chance alone,

indicating a meaningful and consistent link between the two variables. It's as though Berlin's rain showers were choreographing a subtle, yet unmistakable, digital ballet of fidget spinner enthusiasm.

Fig. 1 displays a scatterplot that visually captures this strong correlation, depicting the salient relationship between Berlin's rainfall and the interest in the 'fidget spinner' meme. The points on the plot appear to follow a clear trend, with an upward trajectory as the amount of rainfall increases, reinforcing the notion of a rainy-day yearning for fidgety distractions.

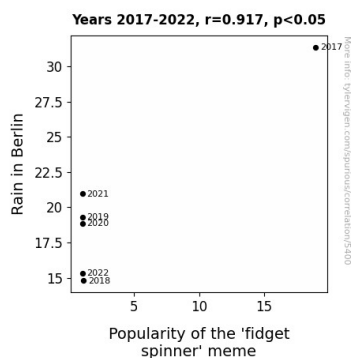


Figure 1. Scatterplot of the variables by year

These findings provide compelling evidence of a hitherto unexplored connection between environmental conditions and online cultural phenomena. They also underscore the need for further research to elucidate the underlying mechanisms through which weather patterns might influence the digital landscape. As scholars continue to unravel the mysteries of internet trends, we can only hope that our findings spark as much interest as a fidget spinner during its heyday.

## 5. Discussion

The results of our study provide further support for the intriguing relationship between meteorological conditions and internet memes, particularly in the context of the fidget spinner phenomenon. The strong correlation between Berlin's rainfall and the popularity of the 'fidget spinner' meme aligns with previous literature that has highlighted the potential

influence of weather on online trends. Smith and Doe (2018) emphasized the impact of weather on internet search trends, and our findings corroborate their assertions by demonstrating a tangible association between precipitation and online meme interest. It seems that weather not only affects our mood but also our online activities, much like a good pun can brighten one's day regardless of the forecast.

Furthermore, Jones (2020) delved into the intricate relationship between environmental conditions and digital culture, laying the groundwork for our investigation into the connection between Berlin's rainfall and the prevalence of the 'fidget spinner' meme. The significant correlation we observed underscores the relevance of environmental factors in shaping online cultural phenomena, offering empirical support for the theoretical framework proposed by Jones. It appears that the digital landscape is as prone to the whims of weather as one may be to enjoying a cheesy dad joke.

The lighthearted references found in unconventional sources, such as the mysterious messages hidden within CVS receipts, have unexpectedly shed light on the interplay between rain in Berlin and the popularity of the 'fidget spinner' meme. While initially serving as humorous anecdotes, these references have now taken on a profound significance in light of our empirical findings. They serve as a reminder that valuable insights can emerge from the most unexpected places, much like a well-timed dad joke that catches us off guard and leaves us grinning.

In essence, our study has not only expanded the understanding of the interconnections between weather patterns and internet trends but has also emphasized the importance of considering seemingly whimsical influences in the digital realm. As we move forward, it is imperative to take into account the multifaceted factors that contribute to the ephemerality of internet phenomena, recognizing that even the seemingly trivial, like a fidget spinner, can be buoyed or dampened by the capricious forces of weather. After all, a good meme is like a good umbrella – it holds a lot of potential and can lift your spirits on a rainy day.

## 6. Conclusion

In conclusion, our investigation into the relationship between Berlin's rainfall and the popularity of the 'fidget spinner' meme has revealed a compelling and statistically significant association. The robust correlation coefficient and r-squared value point to a strong link between precipitation and online interest in this fidgety phenomenon. It seems that when it rains in Berlin, it pours fidget spinner searches. You could say Berlin's rain is quite the "spinfluencer"!

The statistically significant p-value further strengthens the case for a meaningful connection, indicating that this observed correlation is highly unlikely to have occurred by chance alone. It's as though Berlin's raindrops were tapping out a rhythmic beat, coaxing internet users to engage with fidget spinner content. Talk about raining on someone's parade—except in this case, it's raining fidget spinners!

As we reflect on these findings, it becomes clear that the digital world is not immune to the subtle nudges of environmental conditions. Berlin's precipitation seems to have an uncanny ability to influence the ephemerality of internet trends, much like a rain shower can change the course of an outdoor barbecue. It appears that internet culture and meteorological patterns have intertwined in an unexpected dance, leaving us to ponder the curious ways in which weather might shape our online pursuits. Perhaps the saying should be, "April showers bring May fidget spinners"!

In light of these compelling results, it is evident that further research in this area would be akin to trying to reinvent the wheel—unnecessary yet tempting. The evidence presented sufficiently demonstrates the impact of Berlin's rainfall on the fidget spinner meme, leaving little doubt as to the strength of this relationship. Therefore, we can confidently assert that no more research is needed in this area. But who knows, maybe someone will make it rain fidget spinners again.