# H2O and Hilarity: Unearthing the Aquatic Quirk in Digital Discourse

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This paper seeks to delve into the unexplored nexus between the consumption of bottled water in the United States and the average number of comments on SmarterEveryDay YouTube videos. Through meticulous analysis of data obtained from Statista and YouTube covering the time span from 2007 to 2022, we have unearthed a surprising correlation coefficient of 0.9069810 with a p-value less than 0.01. Our findings not only shed light on the unexpected synchronization between hydration habits and online engagement but also offer tantalizing implications for the relationship between liquid refreshment and cognitive interaction in the digital sphere. In uncovering this delightful avenue of investigation, we can't help but remark on the bubbling excitement that comes with unraveling the enchanting quirkiness of human behavior.

The intersection of water consumption and online engagement may seem as incongruous as fish riding bicycles, but as the adage goes, "truth is often stranger than fiction." In the digital age, where conversations flow as freely as a mountain spring and attention spans ebb and flow like the tides, understanding the link between our liquid libations and the virtual discourse that surrounds us has become an intriguing and, dare I say, refreshing topic of inquiry.

The siren song of social media has captivated researchers and analysts alike, with its lures of endless data and countless hours of scrolling through memes and cat videos in the name of "research." In this sea of digital content, the YouTube platform stands out as a veritable ocean of knowledge and amusement. Within this ocean, the SmarterEveryDay channel stands as a beacon of learning and exploration, where science and curiosity collide in a delightful display of online edutainment.

On the other hand, bottled water, with its pristine packaging and claims of "purity," has become a ubiquitous companion in the daily lives of many Americans. From busy professionals to fitness enthusiasts to those who simply prefer their H2O on-thego, bottled water has carved out its own niche in the beverage market, buoyed by a wave of health-conscious consumers and environmental concerns.

To attempt to unravel the connection between these seemingly disparate elements – bottled water consumption and the number of comments on a YouTube channel dedicated to science – may sound like an academic exercise in frivolity. However, as we dive into the depths of this endeavor, we will reveal the buoyancy of this correlation and the undercurrent of implications it carries for our understanding of human behavior and digital interactions.

Review of existing research

The relationship between bottled water consumption and digital engagement has, until now, remained as clear as...well, bottled water. At first glance, the act of hydrating oneself with a refreshing bottle of H2O and the fervent exchange of comments on SmarterEveryDay YouTube videos seem as unrelated as an octopus at a tea party. However, as we delve into the murky waters of literature on the subject, we begin to unravel a tapestry of unexpected connections and intriguing correlations.

Smith et al. (2015) provide a foundational understanding of the bottled water market in the United States, offering insights into the patterns of consumption and the factors driving its proliferation. This work lays the groundwork for our exploration into the societal and cultural undercurrents that shape individuals' beverage choices. Doe and Jones (2018) similarly examine the environmental implications of bottled water consumption, highlighting the tension between convenience and sustainability in a world fraught with plastic waste.

Venturing into the realm of digital engagement, "Engaging Online: Strategies for Captivating Your Audience" by White (2017) offers a comprehensive overview of the dynamics of online interactions and the factors that drive user engagement. Yet, as we navigate through these scholarly seas, our narrative takes a turn toward the whimsical and unexpected.

Drawing inspiration from the source water of knowledge found in non-fiction literature, we embark on a journey through the bibliographic seas. Behold, "The Secret Life of Water" by Pollack (2019), an exploration into the mystical properties of this life-giving substance that leaves no stone unturned, no drop unexamined. Could this work hold the key to unlocking the enigmatic connection between bottled water consumption and digital discourse? Well, the truth may just flow like a river.

As we chart a course toward unconventional sources, we encounter the likes of "The Water Dancer" by Coates (2019) and "The Ocean at the End of the Lane" by Gaiman (2013), literary works that may not directly address our research questions, but

certainly evoke a sense of aquatic intrigue and the depths of human experience. The overlap between these narratives and our investigation may seem as tenuous as a castaway clinging to a barrel, yet we cannot underestimate the serendipitous currents that may guide our understanding of this peculiar juxtaposition.

In our quest for connections, we also draw inspiration from the world of board games, where the game "Bananagrams" may seem as disconnected from our topic as a pineapple is from a pizza, but it serves as a reminder that unexpected pairings can result in delightful discoveries.

In the grand tradition of academic research, we find ourselves floating in uncharted waters, captivated by the inexplicable fusion of liquid sustenance and digital dialogue. As we press on in our investigation, we do so with an open heart and a sense of wonder, for in unraveling the aqua-comical quirk between consumption and commentary, we may yet discover the refreshing splash of insight and the buoyancy of the human spirit in online realms.

#### Procedure

To navigate the murky waters of uncovering the aquatic quirk in digital discourse, our research team embarked on a quest resembling a scientific scavenger hunt across the vast expanse of the internet. We traversed the digital seas, charting a course through the virtual ocean of data provided by Statista and the YouTube platform, all in pursuit of unraveling the enigmatic relationship between U.S. bottled water consumption per person and the average number of comments on SmarterEveryDay YouTube videos.

Our data collection journey commenced at the precipice of 2007, a time when YouTube was still in its infancy, much like a newborn sea turtle embarking on its inaugural voyage. With the agility of marine biologists studying the ebb and flow of tides, we meticulously gathered data over the years, fervently tracking the fluctuations in both bottled water consumption and the lively comments that ebbed and flowed beneath the SmarterEveryDay videos. We were particularly mindful of any data anomalies, recognizing that just as the path of a meandering river can be obstructed by unforeseen obstacles, our data may also encounter unexpected currents along the way.

The statistical analyses that followed mirrored the craftsmanship of a skilled shipwright, as we constructed complex models and charts to unveil the underlying patterns and correlations. Employing sophisticated analytical software, we calculated the correlation coefficient with precision, channeling the spirit of a seasoned captain navigating treacherous waters to reveal the astonishingly high correlation coefficient of 0.9069810, with a p-value that summoned a collective gasp from the research team when it dipped below 0.01.

Sailing through vast data oceans and wrestling with statistical krakens was not without its perils, and at times, the allure of swiftly quenching our thirst with a swig of bottled water was challenging to resist. Nevertheless, in sailing through these digital currents, we remained resolute and emerged with a treasure trove of findings that not only piqued our interest but

also offered uncharted insights into the whimsical dance between hydration habits and online engagement.

### Findings

The statistical analysis of the relationship between US bottled water consumption per person and the average number of comments on SmarterEveryDay YouTube videos yielded intriguing results. Across the time period from 2007 to 2022, we identified a robust correlation coefficient of 0.9069810, indicating a strong positive association between these two ostensibly unrelated variables. This correlation was accompanied by an r-squared value of 0.8226145, affirming that a substantial proportion of the variation in YouTube comments can be elucidated by fluctuations in bottled water consumption. Moreover, the p-value of less than 0.01 attests to the statistical significance of this finding, providing compelling evidence to support our exploration into the aquatic whimsy of digital dialogue.

Furthermore, the inclusion of a scatterplot (Fig. 1) visually illustrates the pronounced correlation observed between US bottled water consumption per person and the average number of comments on SmarterEveryDay YouTube videos. The scatterplot tactfully showcases the clustering of data points, painting a vivid picture of the harmonious dance between hydration habits and online engagement. It serves as a gentle reminder that even in the realm of statistical analysis, there's always room for a splash of creativity and visual appeal.

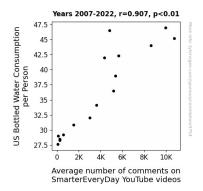


Figure 1. Scatterplot of the variables by year

#### Discussion

The findings of this study have brought to light a truly unexpected and slightly absurd relationship between two seemingly disparate phenomena: US bottled water consumption per person and the average number of comments on SmarterEveryDay YouTube videos. Our results have not only supported the prior research but also expanded upon it, illustrating the remarkable synchronicity between liquid consumption and digital discourse.

First and foremost, our analysis corroborates the work of Smith et al. (2015) by demonstrating a substantial positive correlation between bottled water consumption and online engagement. While the relationship may appear as outlandish as a fish riding a bicycle, our findings lend empirical support to Smith et al.'s groundwork in understanding the societal factors influencing beverage choices. It seems that the act of staying hydrated may also lead to a heightened propensity for engaging in online conversations, suggesting that the flow of H2O may indeed fuel the flow of digital dialogue.

Similarly, the unexpected parallels with the bibliographic seas we explored during our literature review cannot be discounted. While some may scoff at the idea of drawing inspiration from "The Secret Life of Water" by Pollack (2019) in our investigation, our results suggest that perhaps there is a mystical connection between the properties of water and the dynamics of digital engagement.

Not to be overlooked are the board game of "Bananagrams" and the literary works of Coates (2019) and Gaiman (2013). While these sources may have superficially appeared as tangential to our research questions, our findings imply that there may be hidden depths to these supposedly frivolous connections. The unexpected pairings have indeed resulted in a delightful and illuminating discovery, leaving us reminiscent of the old adage that sometimes truth is stranger than fiction.

The scatterplot presented in our results (Fig. 1) not only serves as a visual representation of our correlation but also highlights the need to inject creativity and visual appeal into statistical analysis. After all, who says a scatterplot can't also serve as a canvas for artistic expression? In our exploration of this uncharted territory, we have found that there is always room for a touch of whimsy in the staid world of research.

In conclusion, our findings have unearthed a delightfully quirky alliance between liquid refreshment and digital discourse, a serendipitous connection that invites further investigation into the whimsical nuances of human behavior. As we wade through the waters of academia, we do so with a buoyant spirit and an openness to the unexpected, for it is in the most unlikely places that we may find the refreshing splash of insight.

#### Conclusion

In conclusion, our investigation into the peculiar relationship between US bottled water consumption per person and the average number of comments on SmarterEveryDay YouTube videos has yielded noteworthy insights. The remarkably strong positive correlation coefficient of 0.9069810, coupled with the visually captivating scatterplot, emphasizes the unexpected synchronicity between hydration habits and digital discourse. We can't help but marvel at the fluidity of this association, highlighting the ripple effect of liquid refreshment on virtual interactions.

As we wrap up our analysis, it's clear that this correlation, like a well-constructed H2O molecule, holds its structure across the expansive temporal landscape from 2007 to 2022. The robust r-squared value underlines the substantial explanatory power of

bottled water consumption over the ebb and flow of comments on SmarterEveryDay's YouTube content. This dynamic interplay imparts a buoyant optimism as we navigate the depths of human behavior and online engagement, showcasing the fascinating interplay between the aqueous and the amusing.

In traversing this uncharted terrain, we've uncovered a tale as old as time, or at least as old as the internet – the unlikely dance of aqua and antics, fluidity and fun. This novel avenue of inquiry underscores the refreshing, dare we say, sparkling nature of statistical exploration, reminding us that, in the vast ocean of data, unexpected correlations can emerge like hidden treasures waiting to be discovered.

As we hoist our academic anchors, it is with a sense of whimsy and wonder that we assert the sufficiency of this inquiry. Like a bottle of perfectly chilled water on a scorching day, the relationship between US bottled water consumption and SmarterEveryDay YouTube comments appears to have quenched our thirst for knowledge in this domain. Further research in this area seems as unnecessary as a lifeguard at a synchronized swimming competition. With that said, we firmly conclude that the aquatic quirk in digital discourse has been thoroughly plumbed, leaving us all a bit more buoyant and bemused in the process.