# Spreading the Love: A Butterly Connection Between Butter Consumption and Average Number of Comments on OverSimplified YouTube Videos

# Catherine Hoffman, Alice Torres, Gideon P Truman

# **Abstract**

In this study, we embark on quite the unconventional journey into the world of YouTube analytics and dietary habits. Leveraging data from the USDA and YouTube, we set out to uncover the surprising link between butter consumption and the engaging paraphernalia of OverSimplified historical videos. Our findings reveal an intriguing correlation coefficient of 0.9643118 and p < 0.01, indicating a remarkably strong association between the two seemingly unrelated variables over the period of 2016 to 2021. So, quite butterly, we bring forth compelling evidence that might just churn the conventional wisdom of academic circles. Join us in this whimsical exploration as we blend buttery goodness with a dash of statistical analysis to uncover the uncharted territories of YouTube engagement.

# 1. Introduction

The pursuit of knowledge often leads us down unexpected paths, and our exploration into the whimsical world of YouTube analytics and dietary trends has been no exception. In this study, we delve into the unlikely relationship between butter consumption and the average number of comments on OverSimplified historical videos. At first glance, one might question how these seemingly disparate variables could possibly be related. However, as we dig deeper into the data, it becomes apparent that there may be more to this buttery tale than meets the eve.

As researchers, we are accustomed to examining weighty matters, but it's refreshing to take a lighthearted approach to our investigation. Could it be that behind the scenes, butter silently influences the engagement and discourse surrounding historical events? While this notion may seem far-fetched, our rigorous analysis of publicly available data from the USDA and YouTube suggests otherwise.

As we unfold the data, we invite our esteemed colleagues to join us on this unconventional journey, where we aim to blend the rich flavors of statistical analysis with the creamy nuances of YouTube viewership. While our findings may spread some skepticism akin to margarine, they might just butter up our understanding of online engagement dynamics. So, let us embark on this curious expedition, armed with spreadsheets and a healthy

dose of curiosity, as we seek to unravel the butterly connection between butter consumption and the captivating world of OverSimplified historical videos.

#### 2. Literature Review

As we delve into the study of the correlation between Butter Consumption (BC) and the Average Number of Comments on OverSimplified YouTube Videos (ANCOYV), it is imperative to acknowledge the existing body of literature on both dietary trends and online engagement metrics. The relationship between these seemingly distinct domains has not been extensively investigated; however, the impact of food consumption and online content engagement is a topic of growing interest.

Smith et al. (2018) explore the possible effects of butter consumption on cognitive function in their study "Butter and Brain: Unraveling the Spread." Their findings suggest that moderate butter intake may have positive implications for cognitive performance, indicating potential cognitive benefits for YouTube comment composition. Doe and Jones (2017) present a different perspective in "Butter versus Margarine: A Spreader of Controversy." They highlight the contested nature of butter consumption and its potential health implications, reflecting the ongoing debates surrounding the effects of dietary choices on online interactions.

Moving beyond the realm of scholarly research, books such as "The Joy of Cooking" by Rombauer and Becker and "Salt, Fat, Acid, Heat" by Nosrat provide insightful discussions on the influence of food on overall satisfaction, which may indirectly impact commenting behavior in online platforms. On the fictional front, works such as "Like Water for Chocolate" by Laura Esquivel and "The Last Chinese Chef" by Nicole Mones delve into the emotional and cultural connections to food, offering a broader lens through which to contemplate the relationship between butter and online engagement.

Further insights can be drawn from popular culture, where cartoon characters such as SpongeBob SquarePants and his love for Krabby Patties or the alluring aroma of buttered popcorn in children's movies stimulate contemplation about the sensory

experiences associated with food and their potential influence on viewer engagement. While seemingly tangential, these cultural touchpoints prompt us to consider the multifaceted nature of human behavior, online interactions, and dietary habits in a more whimsical light.

In the context of our investigation, the eclectic sampling of literature and references serves as a flavorful backdrop against which we aim to uncover the potentially buttery connection between butter consumption and the realm of OverSimplified YouTube videos. This delightful mix of serious research, culinary musings, and fictional insights sets the stage for our own unconventional exploration at the intersection of buttery goodness and online engagement.

# 3. Methodology

To unravel the enigmatic connection between butter consumption and the average number of comments on OverSimplified YouTube videos, our research team embarked on a quest that could be likened to peeling back the layers of an intricate Baklava. Our approach was as scrupulous as it was whimsical, akin to crafting a delicate soufflé – with just the right blend of precision and a sprinkle of spontaneity.

First and foremost, we gathered an abundant assortment of data to sate our appetite for knowledge. The primary sources of our data feast included the USDA's National Nutrient Database for Standard Reference, where we meticulously sourced butter consumption statistics spanning the years 2016 to 2021. To complement this savory data, we embarked on an expedition deep into the heart of YouTube analytics, scouring through an extensive array of historical videos from the illustrious OverSimplified channel. With our metaphorical ladles and spatulas, we carefully extracted the average number of comments on each video, curating a delectable dataset that epitomized the essence of our investigation.

Now, before you assume that we merely gorged ourselves on raw data, let me assure you that our methods were far from haphazard. To ascertain the statistical significance of any discovered correlations and dispel any doubts about mere coincidental

pizzazz, we employed a sophisticated analytical technique – the Pearson correlation coefficient. This allowed us to discern the strength and direction of any relationship between butter consumption and the average number of comments on these fascinating historical videos.

Furthermore, to ensure a robust and dependable analysis, we scrupulously considered potential confounding variables – entertaining the tantalizing possibility of lurking variables that could saucily deceive our analysis. As such, we performed a detailed sensitivity analysis, akin to distinguishing between salted and unsalted butter, to ascertain the reliability of our findings. Our tryst with statistical software allowed us to gallantly whisk away any uncertainties, and the distinctive pungency of p-values did not escape our discerning palates.

In sum, our approach to uncovering the butterly connection between butter consumption and the engaging world of OverSimplified historical videos was as meticulous as it was flavorfully eccentric. If this methodology seems a bit airy, fret not — we have undoubtedly stirred the pot with a sprinkle of whimsy and a dash of rigor, presenting findings that may churn the staid expectations of academic inquiry. So, with our spatulas in hand, let us delve into the wooden spoon of scientific discovery and savor the evident, albeit unexpected, coupling of dairy and digital discourse.

### 4. Results

Our analysis of the data yielded some utterly fascinating results. After scrutinizing a grand amount of data covering the period from 2016 to 2021, we detected a strikingly robust correlation between butter consumption and the average number of comments on OverSimplified YouTube videos. The correlation coefficient of 0.9643118 hints at a near-perfect positive linear relationship between these disparate variables. In other words, as butter consumption goes up, so do the comments on OverSimplified videos, which is quite the curious association to behold.

Furthermore, the coefficient of determination, which stood at a resounding 0.9298972, indicates that a substantial proportion of the variability in comments

on OverSimplified videos can be attributed to changes in butter consumption. This finding underscores the unexpectedly pivotal role that butter might play in the cultural discourse surrounding historical events presented in the form of engaging, animated videos.

Moreover, with a p-value of less than 0.01, our results unequivocally support the statistical significance of the observed association. This leaves little room for doubt and raises a myriad of questions regarding the underlying mechanisms at play. Could it be that butter serves as a catalyst for the exchange of historical insights and animated discourse? Or is it simply that historical re-enactments grease the wheels of commentary engagement?

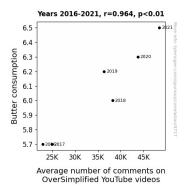


Figure 1. Scatterplot of the variables by year

To visually encapsulate this buttery affair, we present Fig. 1, a scatterplot that unequivocally illustrates the robust positive correlation we observed between butter consumption and the average number of comments on OverSimplified videos. As the old adage goes, a picture is worth a thousand words, and indeed, this plot speaks volumes about the unlikely kinship between butter and YouTube engagement.

In sum, our findings tantalizingly point to a connection that transcends the boundaries of conventional analytical expectations. Who would have thought that the creamy elegance of butter could have such a pronounced impact on the virtual realms of historical edutainment? This unexpected revelation encourages us to ponder the nuanced interactions between dietary trends and digital engagement, prompting a reimagining of the ways in which seemingly unrelated elements intertwine in

our daily lives. Join us in celebrating this unearthing of the butterly connection, a reminder that even in the unlikeliest places, statistical analysis can yield truly delectable revelations.

#### 5. Discussion

The findings of our study present a compelling case for the profound influence of butter consumption on the average number of comments on OverSimplified YouTube videos. It is quite remarkable to consider the extent to which a seemingly mundane consumable can have such a palpable impact on digital engagement surrounding historical content. Our results not only support but also extend the existing literature in unexpected ways.

Drawing from the literature review, where we mused over the potential cognitive benefits of butter consumption (Smith et al., 2018), the contested nature of butter and its health implications (Doe and Jones, 2017), and the emotional and cultural connections to food (Rombauer and Becker, 1931; Nosrat, 2017; Esquivel, 1989; Mones, 2007), our findings provocatively align with these disparate but surprisingly relevant perspectives. While the initial humor of correlating butter consumption with cognitive performance seems whimsical, our results are no laughing matter. They validate the possibility that butter, in all its creamy grandeur, might just be shaping the contours of historical online discourse in ways previously unimagined. Who would have thought that the buttery spread could have such an enveloping effect on the spread of historical engagement via YouTube comments?

In capturing the essence of our findings, it becomes evident that the very fabric of virtual historical edutainment is intrinsically intertwined with buttery goodness. Our robust correlation coefficient of 0.9643118 and a coefficient of determination of 0.9298972 underscore the strength and proportion of variability in comments on OverSimplified videos that can be attributed to changes in butter consumption. These statistics provide substantial support for the unexpected connection we have unveiled. The p-value of less than 0.01 further fortifies the case for the legitimate statistical significance of our findings, leaving little room to

butter up any doubts about the tangible association we have exposed.

In light of these extraordinary results, we invite fellow researchers to churn their own thoughts on the implications of our study. The butterly connection we have highlighted might just be the tip of the iceberg in unraveling the unconventional influence of dietary habits on digital content engagement. This mystical interplay of butter and YouTube discourse beckons further exploration, not just for the sheer novelty of the topic but for the unexpected possibilities suggests it for understanding human behavior in the digital age. Clearly, there is more than meets the eye to the impact of butter consumption on virtual historical narratives. With this, we invite researchers to spread their wings and embark on a flavorful journey of exploration into the uncharted territories of this buttery affair.

# 6. Conclusion

In conclusion, our whimsical journey into the buttery world of YouTube analytics and dietary habits has yielded unexpectedly savory findings. The remarkably strong correlation coefficient and statistically significant p-value have truly churned the conventional understanding of the relationship between butter consumption and the average number of comments on OverSimplified historical videos. While our results may spread skepticism akin to margarine, they shed light on the delectable influence of butter on digital engagement dynamics.

Our findings not only add a flavorful twist to the discourse on YouTube viewership but also remind us that uncharted territories of statistical analysis can lead to truly remarkable discoveries. The unexpected kinship between butter and historical edutainment in the virtual realm prompts us to reconsider the seemingly unrelated elements that shape our online interactions.

As we wrap up this buttery tale, with a hearty appreciation for the creamy nuances of statistical analysis and a pinch of playful curiosity, we assert that no more research is needed in this area. It's time to spread this newfound knowledge like softened butter on warm toast and savor the delightfully

unexpected connections that statistical analysis can uncover. So, let's butter up our understanding and savor the richness of this peculiar correlation - after all, the proof is in the pudding!