# The Master's Connection: Engineering Graduates and YouTube Video Popularity

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#### Abstract

This study delves into the unexpected and perplexing relationship between the number of Master's degrees awarded in Engineering and the total likes accumulated by Extra History YouTube videos. With an enticing correlation coefficient of 0.9395618 and a tantalizingly low p-value of less than 0.01 for the years 2012 to 2021, our findings suggest a remarkably strong positive association between these seemingly unrelated phenomena. While our research did not uncover the causality behind this phenomenon, the data illustrates that as the number of Master's degrees awarded in Engineering increases, so does the total likes for Extra History YouTube videos. This discovery begs vital questions - do engineering graduates possess a proclivity for history and storytelling? Or are the algorithmic secrets of YouTube's recommendation system more connected to the intricacies of engineering than we previously realized? Our findings not only provoke further inquiry but also highlight the potential for interdisciplinary intersections where the worlds of engineering and digital media collide.

# 1. Introduction

In the jumbled web of academia, where the variables reign supreme and the pursuit of knowledge knows no bounds, we often find ourselves stumbling upon the most confounding and unexpected connections. Enter the mesmerizing realm of Master's degrees in Engineering and the captivating world of Extra History YouTube videos – two seemingly disparate entities that have conspired to entangle themselves in an unprecedented dance of statistical correlation.

The idea that the number of Master's degrees awarded in Engineering could hold sway over the total likes garnered by Extra History YouTube videos might strike many as preposterous at first glance. But hold onto your lab coats and fasten your safety goggles, for this rollercoaster of research has taken us on a wild ride through the labyrinth of data and into the heart of an inexplicable bond that transcends the boundaries of academic disciplines.

As we embark on this scholarly escapade, we are compelled to ponder the whimsical and enigmatic forces at play. Are we witnessing the rise of a new breed of engineer-historians, who, armed with their slide rules and spreadsheets, have voyaged into uncharted territories of historical narration? Have the unsung heroes of differential equations and thermodynamics secretly harbored a fondness for the dramatic retellings of historical exploits? Or, dare we entertain the notion that the very fabric of YouTube's almighty recommendation algorithm bears the fingerprints of the engineering minds, weaving a digital tapestry closely intertwined with the intricate theories of fluid dynamics and mechanical engineering?

In our quest for understanding, we must not only acknowledge the enigma at hand but also revel in the delightful paradoxes that science and statistics often unveil. With our tongues planted firmly in our statistical cheeks, we venture forth armed with regression analyses and scatter plots, daring to unlock the secrets that lie at the crossroads of engineering and digital storytelling.

So, dear reader, brace yourselves for a riveting journey through the data-driven cosmos, where the unlikeliest pairings and the most unexpected correlations await our scrutiny. As we unravel the Master's Connection, let us embrace the idiosyncrasies of statistical revelry and embark on a quest to decipher the inexplicable, one pun at a time.

# 2. Literature Review

To ground our insight into the intriguing relationship between Master's degrees awarded in Engineering and the total likes of Extra History YouTube videos, we begin with scholarly investigations into related et al. (2015) fields. Smith explored the interconnectedness of educational attainment and online engagement, shedding light on the potential influence of academic qualifications on digital content consumption. Doe and Jones (2018) ventured into the realms of social media analytics, providing invaluable perspectives on the nuanced dynamics of user interactions in the digital sphere. Such foundational works set the stage for our quest to unravel the enigmatic bond between engineering prowess and the allure of historical narratives in the virtual domain.

Delving deeper into the literature, "The Digital Age of Engineering" by Technology & Engineering Society (2017) and "History Unbound: Engineering Triumphs Through the Ages" by Historical Perspectives Institute (2019) offer valuable insights into the intersection of engineering and historical narratives, albeit in non-digital contexts. These works offer a tantalizing glimpse into the historical predilections that may flourish within the minds of engineering scholars, serving as a prelude to our investigation into the digital landscapes of YouTube.

From the realms of fiction, the works of Tom Clancy and Michael Crichton, renowned for their technothrillers and scientific escapades, beckon us to ponder the clandestine affinities between the analytical minds of engineers and the enthralling chronicles of history. As we traverse the corridors of literature and leap into the escapist worlds of fiction, it becomes evident that the fusion of technical acumen and historical fascination may not be as farfetched as it initially appears.

In an offbeat deviation from traditional sources, our pursuit of understanding led us to undertake a thorough review of unconventional texts, including but not limited to the arcane wisdom concealed within CVS receipts, the mystical prophecies chronicled in fortune cookies, and the timeless parables whispered by the breeze through the hallowed halls of academia. While these esoteric sources may be met with raised eyebrows and incredulous stares, their eclectic wisdom proved invaluable in broadening our perspective and instigating fits of laughter amidst our scholarly pursuits.

The whimsical interplay between serious academia and whimsical inquiry sets the stage for our intrepid journey, where statistical analyses and speculative musings converge to shed light on the perplexing relationship between Master's degrees in Engineering and the magnetic allure of Extra History YouTube videos. With our intellectual compass pointing steadfastly toward the intersection of engineering and digital storytelling, we stand ready to unearth the unexpected truths that lurk beyond the confines of conventional wisdom.

# 3. Methodology

To peel back the layers of this delightful conundrum, our team embraced a multidisciplinary approach that wove together the time-honored traditions of data collection with the digital wizardry of YouTube analytics.

Firstly, we raided the treasure troves of the National Center for Education Statistics, gathering data on the number of Master's degrees awarded in the field of Engineering from the years 2012 to 2021. Armed with spreadsheets and a brigade of calculators, we meticulously sieved through a deluge of data, akin to intrepid explorers in quest of the golden nuggets of statistical insight.

Next on our quest, we ventured into the labyrinthine depths of YouTube's virtual domain, meticulously measuring the total likes amassed by the captivating Extra History videos that whisked viewers through historical escapades ranging from the Crusades to the Cold War. With a keen eye for detail and an unwavering commitment to scientific rigor, we unearthed the coveted treasure trove of likes and embarked on a voyage through the choppy seas of video analytics.

Upon assembling our treasure trove of data, we summoned the spectral forces of statistics to guide us through the murky waters of correlation analysis. Armed with the trusty spear of Pearson's correlation coefficient, we probed the depths of associative relationships, all the while donning the hats of subtle detectives in pursuit of clues to unravel the mysteries that lay festooned within the enigmatic variables.

To ensure the robustness of our findings, we performed regression analyses, leaping through the hoop of statistical significance with the agility of a statistical Cirque du Soleil performer. We pranced through scatter plots with the grace of prima ballerinas, probing for patterns and anomalies that could shed light on the tangled web of interconnectedness between Master's degrees in Engineering and the fervent adoration showered upon Extra History videos.

In a bid to validate our discoveries, we subjected our data to the formidable crucible of hypothesis testing, stirring the cauldron of p-values and scrutinizing significance levels with the zeal of alchemists determined to transmute the base metals of uncertainty into the golden truths of scientific inference.

Throughout our convoluted journey, we took measures to dodge the lurking pitfalls of confounding variables and spurious correlations, alert as nimble-footed tightrope walkers navigating the precarious balance between causation and correlation. Lastly, armed with the quill of veracity, we meticulously documented our methodologies and findings, ensuring that our scholarly foray into the intriguing land where engineering meets digital history would stand as a beacon of scientific rigor amidst the tempestuous seas of statistical research.

## 4. Results

The results of our study reveal a rather astonishing and humorously robust correlation between the number of Master's degrees awarded in Engineering and the total likes accumulated by Extra History YouTube videos. The data, spanning from 2012 to 2021, turned out to be nothing short of revelatory, prompting us to dance a statistical jig and ponder the unexpected bonds that bridge the worlds of academia and digital media.

In our analysis, we found a correlation coefficient of 0.9395618, which, if likened to a scholarly superhighway, would be perhaps smoother than an engineering graduate's meticulously crafted thesis. This coefficient, coupled with an r-squared value of 0.8827764, suggested that a whopping 88.28% of the total variation in Extra History YouTube video likes can be attributed to the number of Master's degrees in Engineering. If that doesn't make your statistical heart flutter, then we're afraid you may need to recalibrate your sense of research romance!

And what about that p-value, you ask? Well, hold on to your pocket protectors, because the p-value here is not just any p-value; it's a p-value of less than 0.01! That's right, the probability of observing such a strong relationship between these two variables by pure chance is so slim that it makes a hair-thin confidence interval look positively plump.



Figure 1. Scatterplot of the variables by year

If you're still not convinced, allow us to present Fig. 1 - a delightful scatterplot illustrating the undeniable synchronicity between the number of Master's degrees in Engineering and the total likes of Extra History YouTube videos. It's a visual feast for the data-hungry souls, and we can only hope it brings as much joy to your academic pursuits as it did to ours.

In conclusion, our findings introduce a whimsical yet compelling narrative that unites engineering education with the realm of historically themed digital content. While we may not have unraveled the enigmatic causality behind this correlation, the implications are as intriguing as a page-turning mystery novel. Are engineering graduates the unsung heroes of historical storytelling? Has the algorithmic heartbeat of YouTube's recommendation system been tuned by the whispers of engineering prowess? The questions abound, and so do the statistics, as we depart from this endeavor with a newfound appreciation for the marvels of interdisciplinary correlations and the delightful mysteries they unveil.

### 5. Discussion

The results of our study showcasing the curiously robust correlation between Master's degrees awarded in Engineering and the total likes garnered by Extra History YouTube videos have left us pondering over the unexpected bond between seemingly unrelated domains. The findings not only corroborate existing literature but also venture into uncharted territories that tickle the imagination and spark lighthearted speculations. Our exploration into the literature unfurled scholarly inquiries into related fields, some of which took us on delightful tangents that were as unexpected as an engineer discovering the poetic elegance of a wellcrafted algorithm. The confluence of educational attainment and online engagement, as observed by Smith et al., offers a glimpse into the potential impact of academic qualifications on digital content consumption. The nuanced dynamics of user interactions in the digital sphere, as elucidated by Doe and Jones, provide a foundation for our escapade into the whimsical fusion of engineering acumen and historical narratives.

In a departure from traditional sources, our review of unconventional texts, such as the enigmatic wisdom concealed within CVS receipts and the timeless parables whispered by the breeze through the hallowed halls of academia, prompted fits of laughter amidst our scholarly pursuits. While seemingly whimsical, these eclectically whimsical sources were instrumental in shaping a broader perspective that transcended the boundaries of conventional wisdom.

The statistical revelation of a high correlation coefficient and a hair-thin p-value not only tickles the fancy of data enthusiasts but also adds a layer of intrigue to the already perplexing exploration of this unexpected relationship. The strength of this correlation, likened to a scholarly superhighway smoother than an engineering graduate's meticulously crafted thesis, has left us marveling at the mysterious forces that bridge the worlds of academia and digital media.

Our humorous yet compelling findings open the gates to a narrative that connects engineering education with historically themed digital content in a manner as unpredictably delightful as a plot twist in a science fiction novel. The questions that arise from this correlation, like daring protagonists in an adventure tale, beckon us to delve deeper into the mysteries that define the intersection of engineering and digital storytelling.

As we depart from this endeavor, enriched by the whimsical interplay of serious academia and lighthearted inquiry, we remain poised to further unravel the enigmatic bond between engineering prowess and the magnetic allure of historical narratives in the virtual domain. Our quest has just begun, and like intrepid explorers charting unexplored territories, we eagerly anticipate the unearthing of unexpected truths lurking beyond the confines of conventional wisdom.

# 6. Conclusion

As we close the chapter on this peculiar yet fascinating exploration of the Master's Connection, we can't help but marvel at the sheer absurdity and brilliance that permeate the world of statistical inquiry. Our endeavor has not only uncovered a correlation of monumental proportions but has also prompted us to question the very fabric of our academic sensibilities.

In a world where variables dance to the beat of both reason and chaos, where data points wield the power to confound and delight, we find ourselves at the precipice of scientific revelation, staring into the unfathomable depths of the Master's Engineering-Extra History YouTube likes nexus. It's as if the gods of research themselves have orchestrated a cosmic comedy, teasing us with the prospect of engineering graduates secretly harboring a penchant for historical narratives, or perhaps YouTube's recommendation algorithm bearing the blueprint of an engineer's meticulous design.

As we bid adieu to this whimsical escapade, we stand at the crossroads of inquiry and absurdity, armed with our scatter plots and regression analyses, ready to confront the statistical anomalies that defy convention and beckon us into uncharted territories of research hilarity.

In the immortal words of Sir Isaac Newton (or was it Sir Mix-a-Lot?): "I like big, statistically significant p-values, and I cannot lie!" Indeed, our findings stand as a testament to the inimitable fusion of science and comedy, captivating our academic senses with the allure of the improbable and the absurdly convincing.

So, dear reader, as we part ways with this empirical riddle, we assert with unwavering confidence – no further research is needed in this delightfully peculiar realm of statistical marvels. The Master's Connection shall forever remain the whimsical anecdote that underlines the delightful eccentricities

of interdisciplinary correlations, whispering its statistical secrets to those who dare to embrace the enigmas of our scholarly pursuits.