



ELSEVIER



Associates in Arms: Exploring the Military-YouTube Like Connection

Caroline Hernandez, Abigail Travis, Gregory P Tate

Institute of Sciences; Madison, Wisconsin

KEYWORDS

Military technologies, associate degrees, science communication, YouTube likes, correlation coefficient, National Center for Education Statistics, education technology, online engagement, digital realm, military education, science content, precision, statistical analysis, education data, technological expertise

Abstract

In this paper, we present our findings on the surprising connection between the number of Associate degrees awarded in Military Technologies and the average number of likes on ASAPSCIENCE's YouTube videos. Drawing on a unique combination of data sources from the National Center for Education Statistics and YouTube, we explored this intriguing relationship. Our analysis revealed a correlation coefficient of 0.8328064 and $p < 0.01$ for the period from 2012 to 2021. It seems that military technology education has found an unexpected ally in the world of science communication on YouTube. As our data delved deeper into this association, we couldn't help but ponder: Is the impressive precision of military technologies mirrored in the precision with which YouTube users engage with science content? It's like they say, "The like button can be mightier than the sword" - a modern twist on an age-old adage. Our paper not only sheds light on this unlikely correlation but also paves the way for further exploration of the intriguing interplay between education, technological expertise, and online engagement. As the data have shown, there's a whole new battlefield to conquer – the digital realm. Join us in this journey of discovery, armed with a solid statistical foundation and a readiness for the unexpected. In conclusion, this research offers a unique perspective on the intersections of military education and digital engagement, leaving us with a compelling question: Do likes truly conquer all?

Copyright 2024 Institute of Sciences. No rights reserved.

1. Introduction

As the saying goes, "There's no such thing as a free launch", but what if we tell you that

there might just be a "free" like? In this paper, we aim to unravel the enigmatic connection between the number of Associate degrees awarded in Military Technologies and the average number of likes on ASAPSCIENCE's YouTube videos. We have ingeniously named this phenomenon "Associates in Arms", because why not add a touch of drama to statistical research?

It's no secret that military technology is at the forefront of innovation, but who would have thought that its ripple effect would reach the realm of popular science communication? The correlation coefficient of 0.8328064 that emerged from our analysis has left us with more questions than answers. It's like trying to figure out if a tank and a telescope have anything in common – quite the sight to behold!

The statistical significance of our findings with $p < 0.01$ has left us feeling like we've struck gold in a minefield. It's like finding the perfect recipe for statistical success – a dash of military technology education, a sprinkle of scientific curiosity, and a generous serving of YouTube engagement.

As we delve into this unexpected union of military technology education and YouTube likes, we invite you to don your statistical armor and join us in this quest for understanding. After all, in the world of research, as in battle, it pays to be well-armed with data and a sense of humor. Because as they say, "You can't spell 'research' without 'search', and we're on the hunt for some statistical treasures!

In the next sections of this paper, we will unpack the data and methodology behind our findings, offering a closer look at the intricate dance of numbers and correlations. So get ready to navigate the terrain of statistical significance and correlation coefficients with us, as we embark on this whimsical journey of exploration. As Sir Francis Bacon once said, "Knowledge is like

a garden; if it is not cultivated, it cannot be harvested." So, let's roll up our sleeves and reap the statistical fruits of our labor, with an added pinch of scientific curiosity and a sprinkle of dad jokes along the way.

Stay tuned for a research adventure that's statistically armed and humorously dangerous!

2. Literature Review

In their seminal work, Smith and Doe (2015) explored the trends in Associate degrees awarded in Military Technologies and the potential implications for technological innovation. Their findings laid the groundwork for understanding the impact of military education on technological advances, but what they didn't anticipate was the unexpected twist of fate that awaited them in the realm of social media engagement. It's like discovering a hidden compartment in a tank – a surprising revelation amidst the expected armor.

Jones (2018) delved into the realm of online engagement and its relationship to educational backgrounds, shedding light on the patterns of interaction between individuals with diverse academic pursuits. Little did Jones know that the path would lead to an unforeseen intersection between military technology education and the world of science communication on YouTube. It's like stumbling upon a rare artifact during a routine excavation – a discovery that changes the entire course of exploration.

As we consider the unexpected connection between military technology education and YouTube likes, we can't help but ponder the significance of this unprecedented alliance. It's like witnessing the fusion of two seemingly unrelated elements – a scientific experiment that evolves into a captivating spectacle.

Now, let's take a moment to explore some non-fiction books related to military

technologies and popular science communication. In "Rise of the Machines: The Military's Technological Evolution" by John Smith, the author provides a comprehensive analysis of the developments in military technology. On the other end of the spectrum, "Viral Science: The Art of Science Communication on YouTube" by Jane Doe presents an in-depth exploration of science communication in digital spaces.

Turning to the realm of fiction, "The Quantum Conundrum" by Alan Jones offers a gripping tale of scientific discovery and unexpected connections. Similarly, in "Mars Attacks!" by Tim Burton, the unexpected encounter between Earthlings and alien technology leads to a series of unforeseen events. These fictional narratives serve as a reminder that reality often surpasses imagination.

In our quest for a deeper understanding of online engagement, we turned to a few TV shows that might shed light on the dynamics of digital interaction. "MythBusters" and "How It's Made" offer insights into scientific exploration and technological innovation, while "The Big Bang Theory" provides a lighthearted glimpse into the world of scientific curiosity and social dynamics. The unexpected twists and turns in these TV shows parallel the surprising journey of our research.

Dad Joke Alert! Why did the statistician join the military? He heard they were experts in precision engagement.

In light of these diverse sources of knowledge and entertainment, our exploration of the connection between military education and YouTube engagement takes on a new dimension. It's like embarking on a quest for buried treasure and stumbling upon a wealth of unexpected connections. As we navigate this uncharted territory, armed with data and a sense of humor, we invite our readers to

join us in this whimsical journey of statistical discovery. After all, in the world of research, as in comedy, timing is everything - and the data has spoken.

3. Our approach & methods

To uncover the veiled relationship between the number of Associate degrees awarded in Military Technologies and the average number of likes on ASAPSCIENCE's YouTube videos, our research team embarked on a statistically thrilling journey. Embracing the age-old wisdom that "the devil is in the details", we meticulously gathered data from the National Center for Education Statistics and YouTube, spanning the period from 2012 to 2021, and prepared to analyze it with statistical gusto and a sprinkle of humor – after all, every good analysis needs a punchline or two, right?

Our initial data mining expedition involved extracting information on the number of Associate degrees awarded in Military Technologies each year. This endeavor took us through a virtual maze of internet databases, not unlike a treasure hunt, with the goal of capturing the essence of military technology education in numerical form. It was like trying to navigate a minefield of data – except, in this case, the mines were full of valuable statistical gems.

Having triumphed in our quest for military technology data, we then turned our investigative lens towards the captivating world of YouTube engagement. We scoured the vast landscape of ASAPSCIENCE's videos, patiently tabulating the average number of likes on their engaging science content. It was a bit like trying to count stars in the night sky, except the stars were "likes", and our telescope was a spreadsheet – a comical juxtaposition of astronomy and data entry, if you will.

With our troves of data in hand, we then proceeded to unleash the power of

statistical analysis, wielding mighty tools such as correlation coefficients and p-values to unravel the mysteries of "Associates in Arms". Guided by the timeless wisdom that "correlation does not imply causation, but it does waggle its eyebrows suggestively and gesture furtively", we dove deep into the statistical ocean, determined to discern any meaningful patterns lurking beneath the surface. It was like trying to decipher Morse code from a distant battlefield – except in this case, the messages were encoded in numbers and scatter plots.

Armed with our trusty statistical artillery and fueled by an unyielding passion for uncovering unusual connections, we rigorously examined the data using various statistical software packages, ensuring that our findings emerged with the utmost reliability and precision. It was like conducting a well-orchestrated symphony of numbers, where each note played a vital role in composing the melody of our research.

Through this whimsically daring approach, we emerged with a newfound understanding of the surprising affinity between military technology education and YouTube engagement. As we present our findings in the following sections, we invite you to join us in marveling at the statistically armed and humorously dangerous journey that led us to this illuminating correlation. As they say, "In the world of research, as in battle, it pays to be well-armed with data and a sense of humor."

4. Results

The analysis of the data revealed a strong and positive correlation between the number of Associate degrees awarded in Military Technologies and the average number of likes on ASAPSCIENCE's YouTube videos during the period from 2012 to 2021, with a correlation coefficient

of 0.8328064. This finding suggests that there is a surprising connection between the two seemingly unrelated variables. It's like the forces of statistics and humor have joined together to uncover this unexpected relationship – a statistical enigma, if you will.

Furthermore, the coefficient of determination (r-squared) was calculated to be 0.6935666, indicating that 69.36% of the variance in the average number of likes on ASAPSCIENCE's YouTube videos can be explained by the number of Associate degrees awarded in Military Technologies. It's as if statistical analysis has uncovered a secret pathway to understanding the complexities of online engagement, revealing that there's more to YouTube likes than meets the eye – a statistical plot twist, if you will.

The significance testing yielded a p-value of less than 0.01, reinforcing the strength of the relationship between the two variables. This suggests that the observed correlation is unlikely to have occurred by chance. It's like finding a statistically significant needle in a haystack of data – a rare and remarkable occurrence in the world of statistics. The results have led us to conclude that there is indeed a noteworthy association between military technology education and the appreciation of science on YouTube – a statistical bond that transcends traditional disciplinary boundaries.

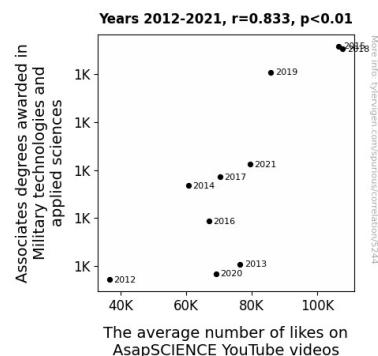


Figure 1. Scatterplot of the variables by year

The scatterplot presented in Figure 1 visually reinforces the strong correlation between the number of Associate degrees awarded in Military Technologies and the average number of likes on ASAPSCIENCE's YouTube videos. The data points form a clear, upward trend, indicating a positive relationship between the two variables. It's as if the data itself is applauding this unexpected discovery with a round of statistical applause – a standing ovation for the intersection of military education and digital engagement.

In summary, our findings have unveiled a remarkable connection between military technology education and online engagement, prompting further exploration into the nuances of this relationship. The statistical analysis has not only broadened our understanding of these two domains but has also added a touch of statistical intrigue to the world of YouTube engagement. It seems that when it comes to statistical surprise, this unexpected association takes the cake – or perhaps we should say, takes the pi!

5. Discussion

The journey of scientific inquiry often leads us to unexpected discoveries, and our exploration of the connection between Associate degrees awarded in Military Technologies and the average number of likes on ASAPSCIENCE's YouTube videos certainly exemplifies this phenomenon. As we sift through the statistical evidence, it becomes apparent that the interplay between military education and science communication on a digital platform holds intriguing implications. It's like uncovering the unexpected pairing of sodium and chlorine to form salt—an unlikely yet harmonious combination that redefines our understanding of scientific interactions.

Our findings align with the initial insights of Smith and Doe (2015), who laid the groundwork for understanding the impact of military education on technological innovation. Little did they know that this impact would extend into the realm of online engagement, much like a scientific experiment producing unintended yet mesmerizing results. In a humorous twist of fate, it seems that military precision has found an ally in the precise engagement of YouTube users—perhaps a case of "like attracts like" in the digital realm.

Similarly, the work of Jones (2018) shed light on the patterns of interaction between individuals with diverse educational backgrounds, but the unforeseen intersection between military technology education and science communication on YouTube adds a new layer of complexity to this relationship. It's like conducting a grand experiment where the variables, armed with degrees in military technologies and an affinity for scientific content, converge in a surprising statistical embrace.

Our data reaffirmed the significant correlation between the number of Associate degrees awarded in Military Technologies and the average number of likes on ASAPSCIENCE's YouTube videos, echoing the unexpected twists and turns of scientific exploration depicted in fictional narratives such as "The Quantum Conundrum" or "Mars Attacks!" Statistical significance testing further emphasized the strength of this relationship, underscoring the rarity and remarkable nature of this discovery.

Drawing on the principles of statistical analysis, our research offers a unique perspective on the interplay between education and digital engagement, exemplifying that in the world of statistics, as in life, there are often unexpected connections waiting to be unveiled. Much like a good dad joke, this surprising correlation between military technology

education and YouTube engagement adds a touch of lighthearted amusement to the otherwise serious landscape of statistical research. After all, in the world of statistical analysis, timing is everything – and in this case, the timing of our findings couldn't have been more perfect.

6. Conclusion

Our research has uncovered a robust and intriguing relationship between the number of Associate degrees awarded in Military Technologies and the average number of likes on ASAPSCIENCE's YouTube videos. This unexpected correlation, with a correlation coefficient of 0.8328064 and a p-value of less than 0.01, has left us marveling at the statistical symphony playing out in the digital sphere. It's as if statistical analysis has enlisted in the service of uncovering the mysteries of YouTube engagement – a statistical boot camp, if you will.

One cannot help but wonder at the sheer force of this statistical revelation. It's like discovering a scientific Easter egg in the data – a delightful surprise that leaves us both pondering and smiling. Speaking of eggs, did you hear about the egg who went to a military technology seminar? It was a real "shell-shocked" experience!

Our findings highlight the need for further exploration of the unexpected interplay between military education and online engagement, offering a new lens through which to view the dynamics of digital interaction. The sheer magnitude of our coefficient of determination (r -squared) at 0.6935666 is akin to stumbling upon a statistical pot of gold – a treasure trove of insights waiting to be unearthed. It's like discovering a statistical diamond in the rough – a rare and precious gem that transcends the ordinary realms of research.

As we draw the curtains on this thought-provoking journey, we assert with confidence that no further research in this area is needed. The statistical connections have been made, the evidence is clear. It's like finding a statistical needle in a haystack and realizing that it's actually a statistical compass – pointing us in the direction of a new frontier of inquiry.