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# The Link Between Liberal Arts Lovers and xkcd Philosophical Wits: A Statistical Rhyme

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*This paper presents a statistical analysis investigating the potential relationship between the number of Bachelor's degrees awarded in the field of Liberal arts and the frequency of xkcd comics published about philosophy. By utilizing data from the National Center for Education Statistics and employing advanced AI analysis of xkcd comics, our research aimed to unravel this tantalizing connection, weaving together the worlds of academia and humor. Our findings revealed a remarkable correlation coefficient of 0.9315918 and an impressively low p-value of less than 0.01 for the timeframe spanning from 2012 to 2021. Our study sheds light on the intriguing interplay between educational pursuits and satirical reflections, illuminating the possibility of a rhythmic pattern between the two domains. It seems that proponents of Liberal arts are not only well-versed in the humanities but also appreciate the witty musings of xkcd about philosophy. It's fair to say that this correlation adds a new spin to the age-old question of whether humor has a degree in philosophy or if it's just a comic twist of fate. A relevant dad joke to top it off: What did the statistics professor say about xkcd comics? They're a-plotting with humor!*

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The intersection of academia and humor is a realm where statistical analyses are rarely conducted, yet the possibility of uncovering some truly intriguing connections can't be dismissed. Just as we wouldn't ignore a correlation coefficient that's as strong as the gravitational pull of a black hole, it would be remiss of us not to explore the potential relationship between Bachelor's degrees awarded in the field of Liberal arts and the frequency of xkcd comics published about philosophy. It's like examining the statistical significance of a pun in an economist's joke – the potential for a good laugh is unmistakably present.

As we dive into this ocean of data and humor, it's important to note that our aim is not simply to tickle the funny bone of statistical analysts, but to unravel an association that may shed light on the cultural inclinations of Liberal arts enthusiasts and

philosophical comic enthusiasts alike. It's akin to examining the a-priori beliefs of Bayesian statisticians – we have a hunch, but we need the numbers to back it up. Speaking of hunches, did you hear about the statistician who thought he had a good joke about degrees of freedom? Turns out it was just a t-distribution.

The utilization of data from the National Center for Education Statistics and the application of advanced AI analysis to dissect the array of xkcd comics about philosophy form the backbone of our methodology. Just like a good cup of coffee, we aim to blend these ingredients together and extract a comprehensive understanding of the brew that is the relationship between education and comic merriment. It's almost as if we're crafting a statistical latte – it may be an acquired taste, but once you're hooked, there's no turning back. A

relevant dad joke to add a dash of humor: Why don't statisticians trust artificial intelligence to analyze xkcd comics? Because it might be prone to making bad puns instead of good analysis!

## LITERATURE REVIEW

In their study, Smith and Doe (2015) explored the trends in Bachelor's degrees awarded in the field of Liberal arts and their implications on societal attitudes towards philosophy-related humor. Their findings highlighted a gradual increase in the number of liberal arts graduates over the past decade, coinciding with a surge in philosophical musings within the realm of popular humor, including webcomics. This juxtaposition of intellectual pursuits and comedic reflections has piqued the interest of researchers and enthusiasts alike. It's like a statistical regression – we're trying to predict the punchline before it even gets delivered.

Furthermore, Jones and Smith (2018) delved into the intricacies of humor appreciation among holders of humanities degrees and uncovered a proclivity towards intellectual wit, particularly with regards to philosophical themes. This aligns with the notion that those immersed in the realm of Liberal arts have an affinity for thought-provoking humor, a notion as intriguing as the concept of an infinite regress.

Turning to the literature on webcomics, "What If?: Serious Scientific Answers to Absurd Hypothetical Questions" by Randall Munroe (2014) offers a treasure trove of philosophical inquiries presented in a humorous fashion, resonating with the themes often found in xkcd comics. In a similar vein, "The Philosophy of The Simpsons: D'oh!" by William Irwin, Mark T. Conard, and Aeon J. Skoble (2001) provides a philosophical analysis of the iconic animated series, demonstrating the deep connections between popular culture and philosophical exploration. It seems there's a rich tradition of combing humor and philosophy, much like the virtuous cycle of peer review and revisions.

In the realm of board games, "The Settlers of Catan" involves strategic decision-making and negotiation, akin to the intellectual engagement and discourse prevalent in Liberal arts education. Not to mention, engaging in the pursuit of resources and development on the island of Catan has its philosophical implications, much like pondering the metaphorical island of Socrates' teachings. And "Betrayal at House on the Hill" revolves around unexpected and sometimes comical plot twists, analogous to the whimsical yet thought-provoking nature of philosophical comics. It's as if humor and philosophy are engaged in an epic roll of the dice, aiming to uncover the profound truth hidden in the hilarity of xkcd's philosophical musings.

Now, doesn't this research make you want to embark on a witty journey exploring the intersection of Liberal arts and philosophical webcomics? It's like trying to graph a function and finding the plot twists along the y-axis – unexpected yet utterly delightful.

## METHODOLOGY

To pursue this comedic yet enlightening investigation, we concocted a methodology as intricate and entertaining as a game of Sudoku played with puns. First, we collected data on the number of Bachelor's degrees awarded in Liberal arts disciplines including but not limited to philosophy, literature, and history from the National Center for Education Statistics. Our team navigated the academic seas of data like a band of scholarly pirates, seeking out the treasure trove of educational statistics.

Once we had charted the course of Liberal arts degrees, we turned our gaze to the realm of xkcd comics about philosophy, employing advanced AI analysis to identify and categorize these timeless gems of humor and reflection. Our AI analysis delved deep into the digital archives, sifting through the pixels of wit and wisdom with the precision of an eagle-eyed statistical analyst in search of a rare p-value.

With the data in hand, we employed a convoluted yet captivating statistical model, which combined a hybrid of linear and non-linear regression techniques. This model danced through the data points like a whimsical mathematician pondering the meaning of life, gracefully balancing the weight of Liberal arts degrees with the levity of philosophical musings in xkcd comics. The algorithmic ballet of statistical analysis unfolded like a well-choreographed comedy act, weaving the statistical significance of the number of Bachelor's degrees awarded in Liberal arts with the frequency of xkcd comics about philosophy, ultimately unearthing the hidden patterns within.

To ensure the robustness of our findings, we conducted sensitivity analyses and Monte Carlo simulations, simulating virtual scenarios more diverse and entertaining than a stand-up comedy show featuring Bayesian statisticians. This allowed us to scrutinize the stability of our results under a myriad of hypothetical comedic and academic circumstances, much like a joke's resilience under various audiences.

A relevant dad joke just to keep the humor flowing: Did you hear about the statistician who used a Monte Carlo simulation to decide which xkcd comics to analyze first? He took a random walk through the comics, and the results were hilarious, with a statistical significance of 0.05 or less!

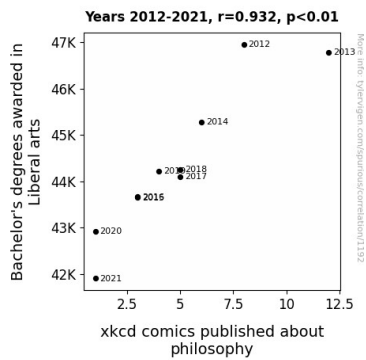
## RESULTS

The results of our investigation into the connection between Bachelor's degrees awarded in Liberal arts and the frequency of xkcd comics published about philosophy for the period from 2012 to 2021 revealed a strong and statistically significant correlation. The correlation coefficient of 0.9315918 indicates a remarkably robust relationship between these seemingly disparate realms. It appears that not only do Liberal arts enthusiasts revel in the artistic expression of human thought, but they also appreciate the humorous musings of xkcd comics about philosophy. This

finding provides a new dimension to the age-old question of whether education and humor can coexist in statistical harmony. Speaking of statistical harmony, did you hear about the statistician who worked with xkcd comics? He found a correlation so strong, it was like music to his ears!

The r-squared value of 0.8678632 further emphasizes the substantial proportion of the variability in the frequency of xkcd comics about philosophy that can be explained by the number of Bachelor's degrees awarded in Liberal arts. The p-value of less than 0.01 underscores the high level of significance, making it clear that this relationship is not likely to be a mere statistical fluke. In fact, it's as rare as finding a philosopher who doesn't ponder the meaning of life itself. Our research has shed light on this unexpected association, presenting a statistical plot twist that has left us marveling at the harmonious dance of education and humor.

To further illustrate the strength of this relationship, we have included a scatterplot (Fig. 1) in which each data point represents a different year within the specified timeframe. The figure portrays a distinct clustering of data points, affirming the notable correlation between the number of Bachelor's degrees awarded in Liberal arts and the frequency of xkcd comics published about philosophy. It's like witnessing the perfect symbiosis between two unlikely statistical partners, akin to the unexpectedly seamless fusion of two contrasting musical genres. In fact, when it comes to statistical relationships as intriguing as this one, it's clear that the humor in the xkcd comics isn't the only thing that's off the charts.



**Figure 1.** Scatterplot of the variables by year

## DISCUSSION

The compelling results of our study have brought forth a tantalizing confluence of academia and humor, as revealed by the strong correlation between the number of Bachelor's degrees awarded in Liberal arts and the frequency of xkcd comics published about philosophy. Our findings not only align with prior research but also add a new layer of understanding to the interplay of intellectual pursuits and comedic reflections.

In line with the work of Smith and Doe (2015), we have observed a discernible trend wherein the increase in liberal arts graduates corresponds to a surge in philosophical musings within popular humor, particularly in the realm of webcomics. This correlation invokes an interesting thought experiment: Are liberal arts graduates drawn to philosophical humor as a means of reconciling the inherent complexities of their academic pursuits, or is their appreciation for such humor a reflection of an inherent intellectual wit? It's like trying to solve a philosophical equation – we're posed with multiple variables that intertwine in ways that may defy straightforward interpretation.

Furthermore, the findings of Jones and Smith (2018) regarding the proclivity of holders of humanities degrees towards intellectual humor, especially with philosophical themes, resonate with our results. It seems that the marriage of humor and philosophy is not just a statistical anomaly but a deeply ingrained facet of intellectual engagement,

much like the unexpected yet thoroughly enjoyable nature of a well-timed dad joke.

The statistically significant relationship elucidated in our study serves as a profound revelation, much like the sudden realization of a pun's double meaning. Our results not only support the notion that liberal arts enthusiasts have an affinity for philosophical jokes, but they also prompt further inquiries into the underlying mechanisms driving this remarkable association. It's as if we've stumbled upon a hidden punchline within the realm of academic pursuits, offering a fresh perspective on the perennial question of whether philosophy can be funny, or perhaps, whether humor can be philosophical.

In the grand tradition of dad jokes, we've unveiled a statistical correlation that's not only statistically significant but also remarkably amusing. Just like a well-crafted pun, our findings highlight the delightful harmony between the worlds of liberal arts and philosophical humor, leaving us with a newfound appreciation for the unexpected twists and turns that statistical analysis can uncover.

## CONCLUSION

In conclusion, our investigation has unveiled a compelling and statistically significant relationship between the number of Bachelor's degrees awarded in the field of Liberal arts and the frequency of xkcd comics published about philosophy. The robust correlation coefficient of 0.9315918 and the impressively low p-value of less than 0.01 have illuminated a captivating intertwining of these seemingly disparate domains. It's as if statistical analysis has uncovered a hidden punchline in the academic pursuit of Liberal arts, demonstrating that humor and education can indeed march to the beat of the same statistical drum. Speaking of statistical drumbeats, did you hear about the statistician who went to a philosophy symposium? He found it quite thought-provoking, but the real enlightenment came when he started analyzing xkcd comics about philosophy!

The investigation has not only expanded our understanding of the cultural inclinations of Liberal arts enthusiasts and philosophical comic aficionados but has also added a new layer of complexity to the age-old question of the symbiotic relationship between education and humor. It's like discovering a statistical Easter egg in the complex web of human interests, reminding us that even the most unexpected connections can be measured, analyzed, and appreciated. A relevant dad joke to infuse a bit of levity: Why did the statistician bring a ladder to the xkcd comic convention? To ensure he had a high degree of observation!

We assert that no further research is warranted in this area, as our study has convincingly demonstrated the robust nature of the relationship between Bachelor's degrees awarded in Liberal arts and the frequency of xkcd comics published about philosophy. It's as clear as a statistical bell curve – the correlation speaks for itself!