



Using Online Skincare Discussions to Measure Interest and Habits

Problem Statement:

I am using posts from two skincare subreddits (r/AsianBeauty and r/SkincareAddiction) in order to learn the skin concerns of two different groups of customers and what products/ingredients they are using to treat their issues to recommend to Sephora products and brands they should look into selling.

What is Reddit?

Why use it?



Reddit is incredibly popular, with around 1.5 billion visits per month

Each community has its own focus and we can leverage this in order to compare how two different communities discuss and use skincare products

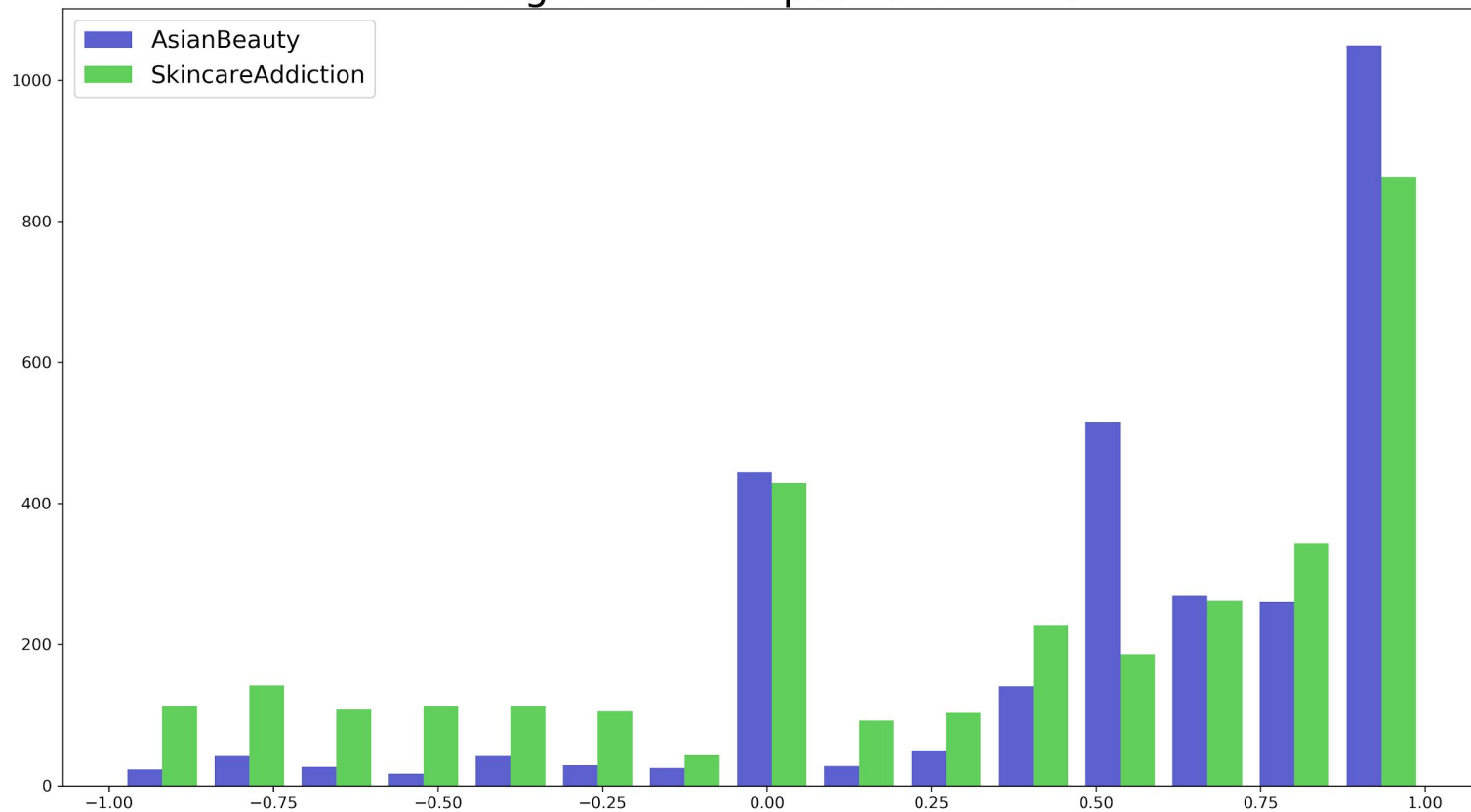
The Data

Using the PRAW Reddit API, I scraped 6,207 posts from the r/AsianBeauty and r/SkincareAddiction subreddits, including their titles, post body, upvote ratio, and number of comments.



Initial Observations

Histogram of Composite Sentiment



The Model and Results

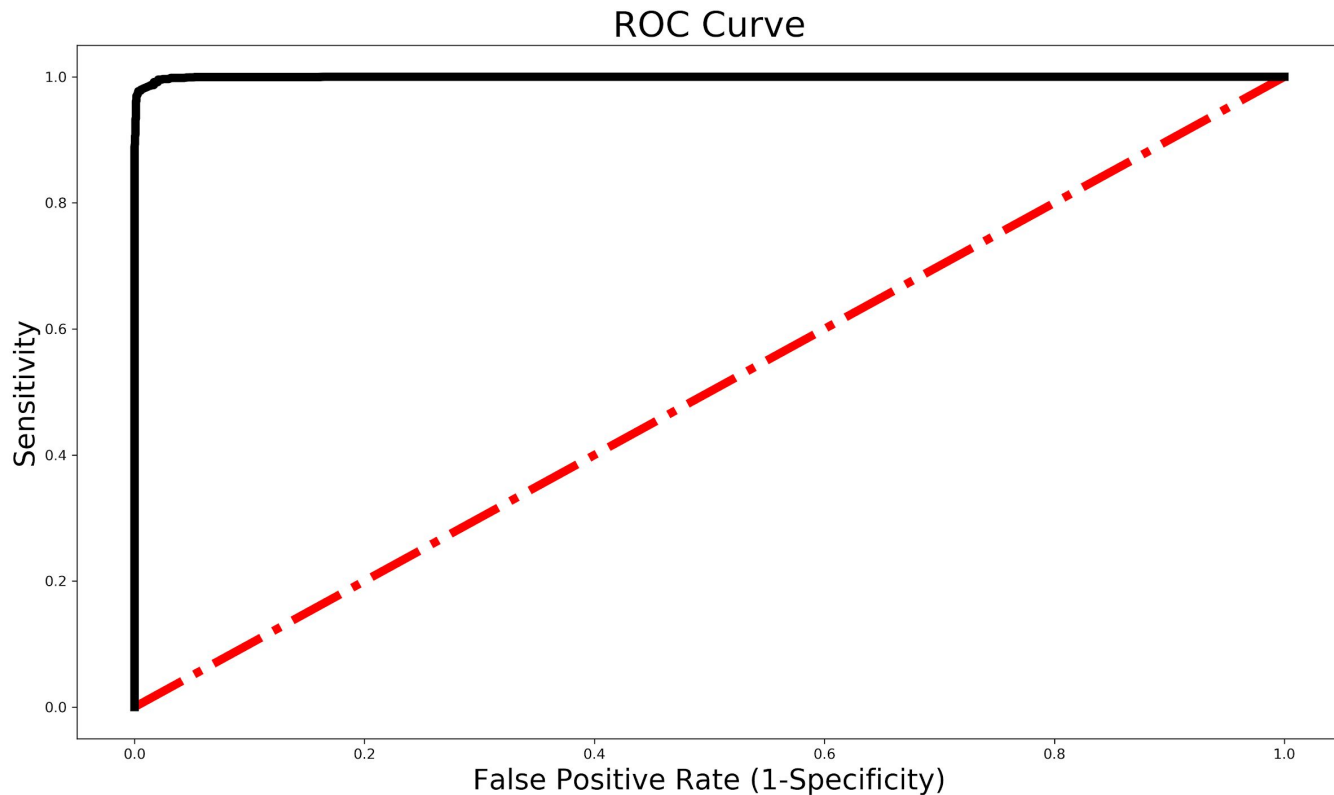
I used a Count Vectorizer function to count the instances of a word in each post, and then used those values in a logistic regression function to classify which subreddit a post was from.

This worked really well!

Training accuracy: 98.6%

Testing accuracy: 94.2%

Results Cont'd



Relevant Words

Asian Beauty

Brands: Innisfree, Klairs, Cosrx, Laneige, Sulwhasoo, A'peiu, Etude House, Kose, Skinfood, Krave, Pyunkang Yul, Neogen, Glow Recipe, Nature Republic, Shu Uemura, Shiseido

Ingredients: snail mucin, madecassoside, centella asiatica extract, royal honey, tamanu oil, green tea

Skincare Addiction

Brands: Neutrogena, Eucerin, Cetaphil, La Roche Posay, The Ordinary, CeraVe, Stratia, Paula's Choice, Pixi, Peter Thomas Roth, Clinique, Aztec Clay, Drunk Elephant

Ingredients: Glycolic acid, Azelaic acid, placenta, hyaluronic acid, BHA, benzoyl peroxide, witch hazel, micellar water, AHA, coconut oil, aloe vera gel, lactic acid, tretinoin, niacinamide, zinc

Recommendations for Sephora

Sephora should look into carrying Stratia, Paula's Choice, Innisfree, Klairs, Sulwhasoo, and Nature Republic.

In addition to the above brands, Sephora already carries some Neogen products but Neogen's Green Tea stick face cleanser was referenced frequently in the AsianBeauty subreddit and should be added to their store. Also, Sephora should focus more on products that deal with acne prevention and contain hydrating ingredients like snail mucin and centella asiatica extract that Asian Beauty members like.