



RoboReview

Family edition

**Who is the #1
prescriber for
buying stuff ?**

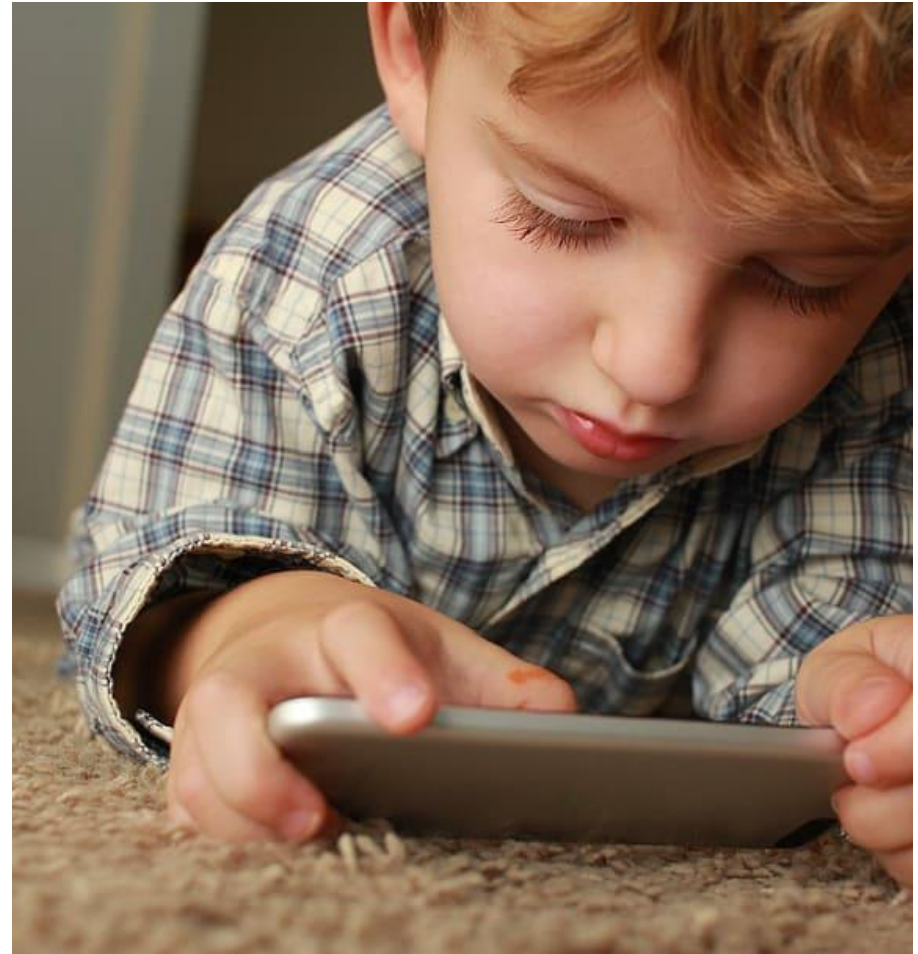
It's Kids!



iWantIt

1.0 “Your kids want it? YOU BUY IT!”

Mobile ad generator that
creates sales pitches to help
kids beg their parents for stuff



Modules

JoyScanner



Analyze the reviews left on products by parents to find the best and most inciting arguments

ToyFinder



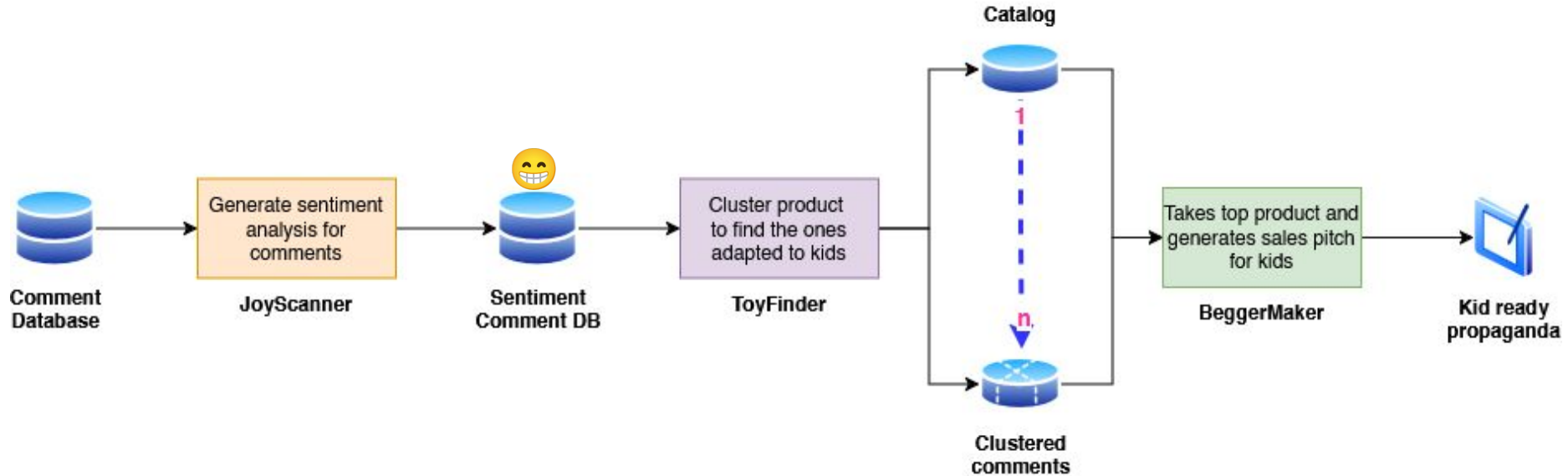
Sort your catalog of products to optimize targeting for kids

BeggerMaker



Generate speech to help kids to beg their parents for stuff

Architecture



Global pre-processing

Training data set - Kaggle Amazon reviews

1. Joined 3 CSV available on Kaggle => +74k reviews
2. Removed duplicates for reviews.text + reviews.id & “Nan” product names, reviews text & titles => +48k reviews
3. Generated a NEG / NEU / POS column based on ratings for sentiment checking
4. Removed “Amazon” from product name for TF-IDF + K-Means Clustering
5. Generated a new DF called “Catalog” for general control => 81 products

JoyScanner

Challenge:

Speech analysis of a DB of reviews to determine a sentiment temperature for each of them.

Why?

Models needs to use comments that are the most positive about a product.

Implementation:

2 models tested with minimal cleaning (html & double spaces)

VADER - Rule based & light to run

Est. acc.: 88.96%

PySentimiento - Transformer-based & heavy to run

Est. acc.: 90.45%

Used separately titles & reviews to make an average.
In most cases, VADER will be able to run in English smoothly.
PySentimiento is to be used for other languages or larger lexicons.



ToyFinder

Challenge:

Build a clusterer that can segment accurate categories

Why?

Need to find kid products

Implementation:

Data preprocessing on 'name', 'brand', 'categories'.

Cleaning + lemmatization + BoW + TF-IDF

Compared 4 different clustering using elbow curves:

1. Brand + Name + Categories (*finalist*)
2. Name
3. Name + Categories
4. Categories

=> 6 final clusters used to generate the data frame Catalog



ToyFinder

Cluster 0: Amazon tablets

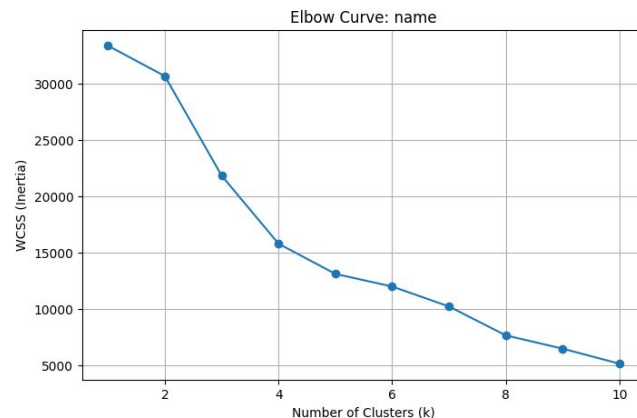
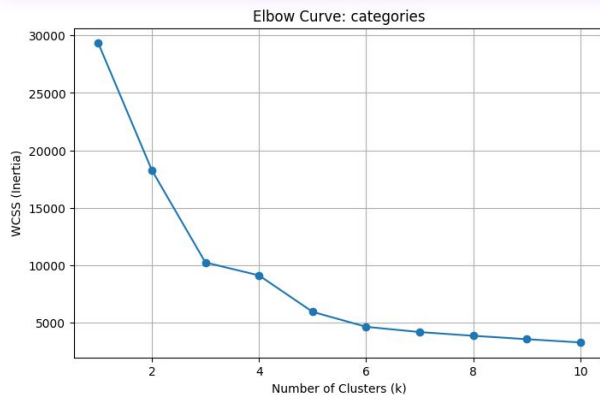
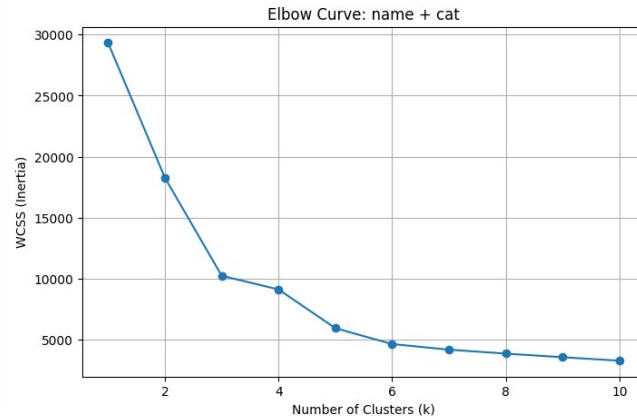
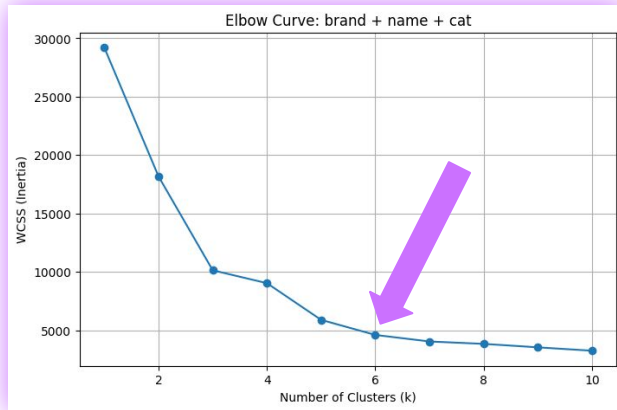
Cluster 1: Speakers

Cluster 2: Household accessories (batteries etc)

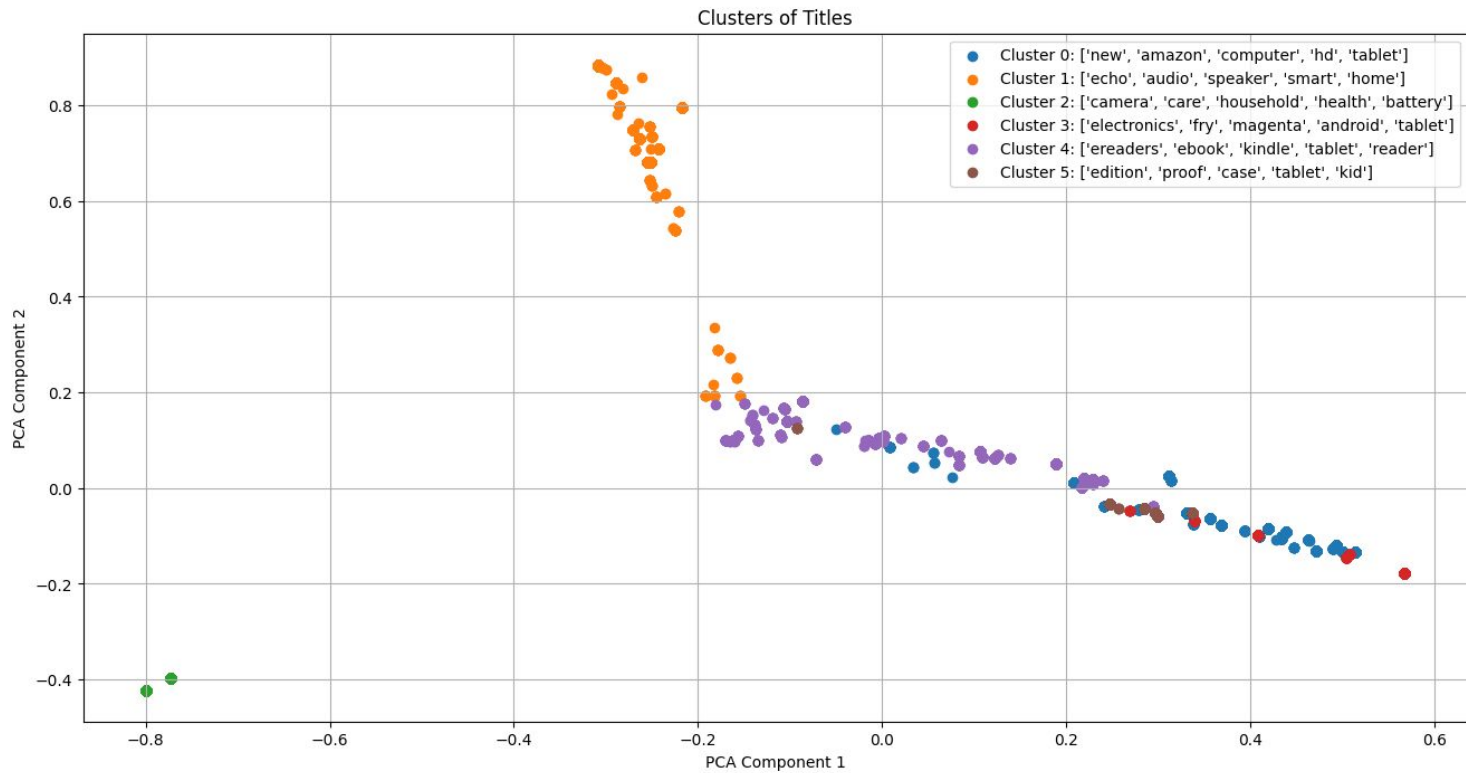
Cluster 3: New Amazon tablet

Cluster 4: Kindles & e-reader

Cluster 5: Kid and toy accessories

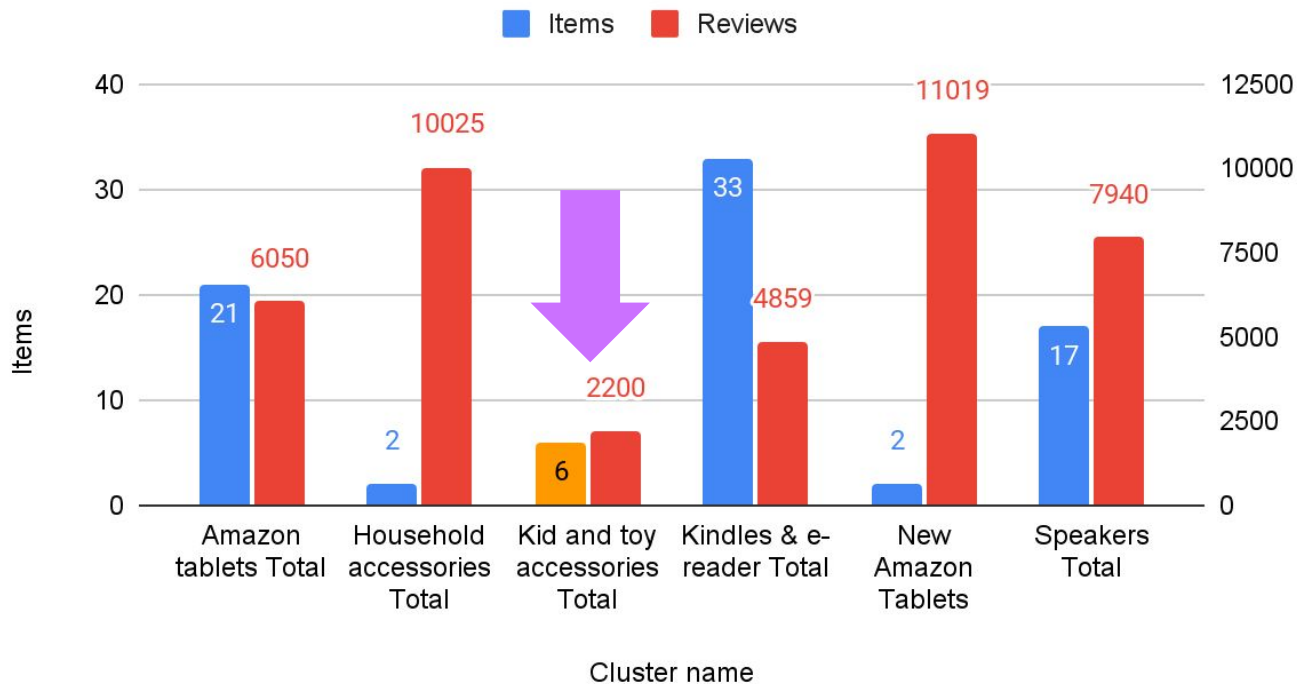


ToyFinder



ToyFinder

Items vs. Cluster name in the catalog



BeggerMaker

Challenge:

Spot the best products to push to parents through kids & generate convincing sales pitch

Why?

Because that's where the money is

Implementation:

Implemented using Llama 3.2 3B

Selection of products is made using weight on the catalog:

```
def sort_top_products(catalog_df, top_n=3):  
    weight_rating = 0.2  
    weight # reviews = 0.5  
    weight_sentiment = 0.8
```

Model customization through N-Shots + Prompt engineering



BeggerMaker

Strategies:

- Acknowledged product issues but still create beg request:

Example 2:

Reviews: "I found the product unreliable, it broke after a week. Customer support was unhelpful."

Summary: "Timmy's dad has one! I know broke like the next day. But when it worked IT WAS AWESOME. Can we get one? I really want one!"

- Also works with non-kid product! (displayed in demo)



BeggerMaker

Rouge / Bleu scores:

Average over the 6 kids product in the data base,
1 summary per product built with 20 reviews.

- **ROUGE-1:** 0.252960 (25.30%)
- **ROUGE-L:** 0.156623 (15.66%)
- **BLEU:** 0.010734 (1.07%)

Terrible numbers but to be expected as we are generating
reviews in kid speech and adding begging elements.



Take-away

Sentiment module - low complexity

Mainly applying well-tuned models

Clusterer module - high complexity

Requires thorough data exploration & multiple test + not easily transferable

Review generator - medium complexity

Easier because building on the shoulders of giants but very costly in resources

Medal for.... **DEMOS!**

(& project concept ;)



iWantIt 1.0

demOs

iWant 1.0 demo



“

Mom can we get one of those
tablets?
People say it's easy to use.

My friend Emma, she can learn new
things and play games!

Plus it's really lightweight and
durable. “

iWantIt 1.0 demo 2



“

Mom I really wants this Kindle.

It's perfect for reading because it's small, the screen is bright and it's easy to use. It will last forever because the battery last 3 days.

My friend Emily has one and she loves it, and my grand-ma says it's like reading a paper book.

Can we please get one?“

iWanIt 1.0 demo 3



“

Mom,
can I please get this paintball gun?

It's so realistic, it feels like a real gun
and it's perfect for my school project.
My teacher said we can use it for a
project and I want to get it so I can be
the best.

Plus, I saw my friend Timmy's dad
has one and he said it's really good.”

THANK YOU VERY MUCH

THANK YOU VERY MUCH

THANK YOU VERY MUCH

THANK YOU VERY MUCH

THANK YOU VERY MUCH

THANK YOU VERY MUCH

END

COVER

END

COVER

