

Clean at Sephora

- INTERACTIONS & RECOMMENDATIONS

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Today's Agenda

Overview

Recommender
System

Problems to
Check

Further Thoughts



Overview: What is Clean at Sephora

Clean at Sephora products are formulated without: Sulfates—SLS + SLES, Parabens, Formaldehydes, Formaldehyde-releasing agents, Phthalates, Mineral Oil, Retinyl Palmitate, Oxybenzone, Coal Tar, Hydroquinone, Triclosan, Triclocarban, etc

How many on their without list: around 50 ingredients





Problems to Look at

1

What's Top Clean Ingredients?

3

What's are the versatile and good products?

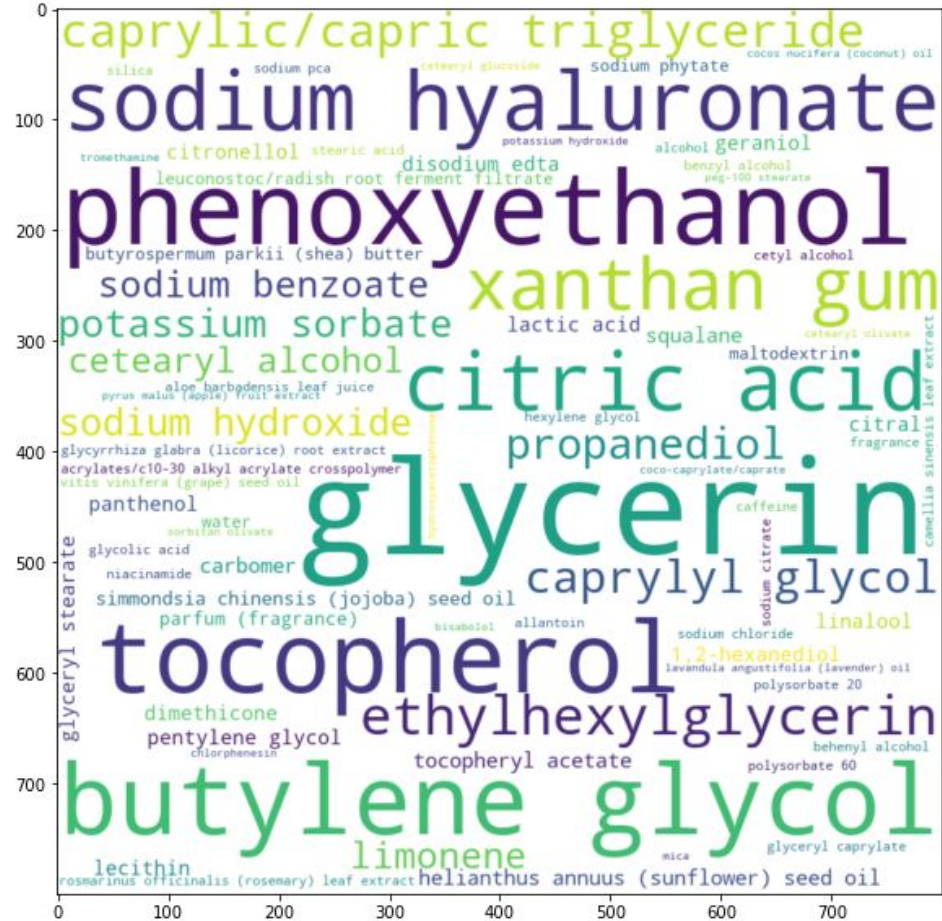
2

Clinical test supports real results?

4

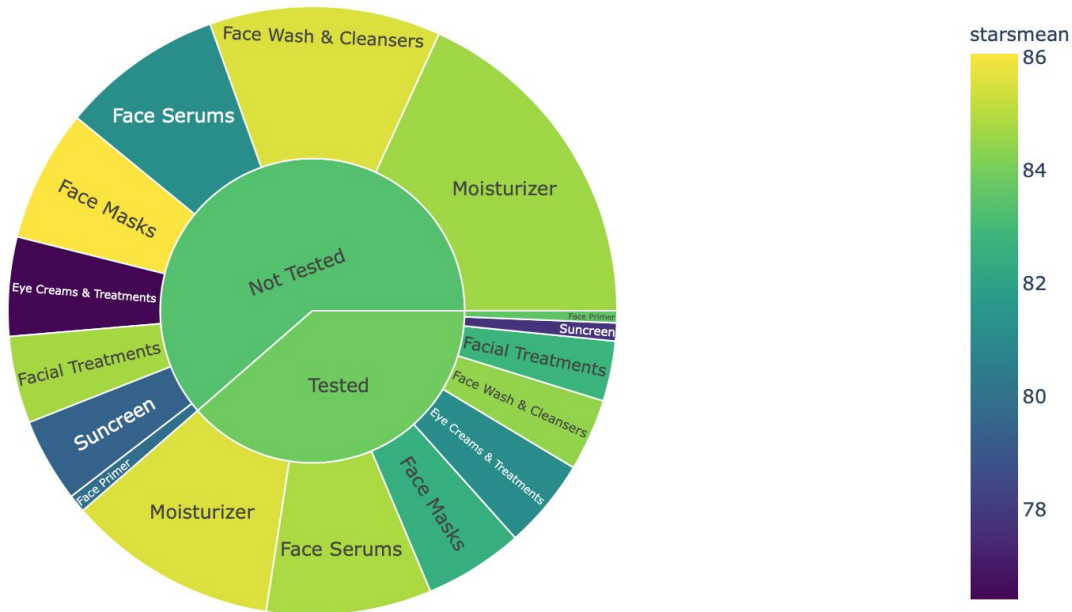
What's our users profile?

Clean Ingredients?



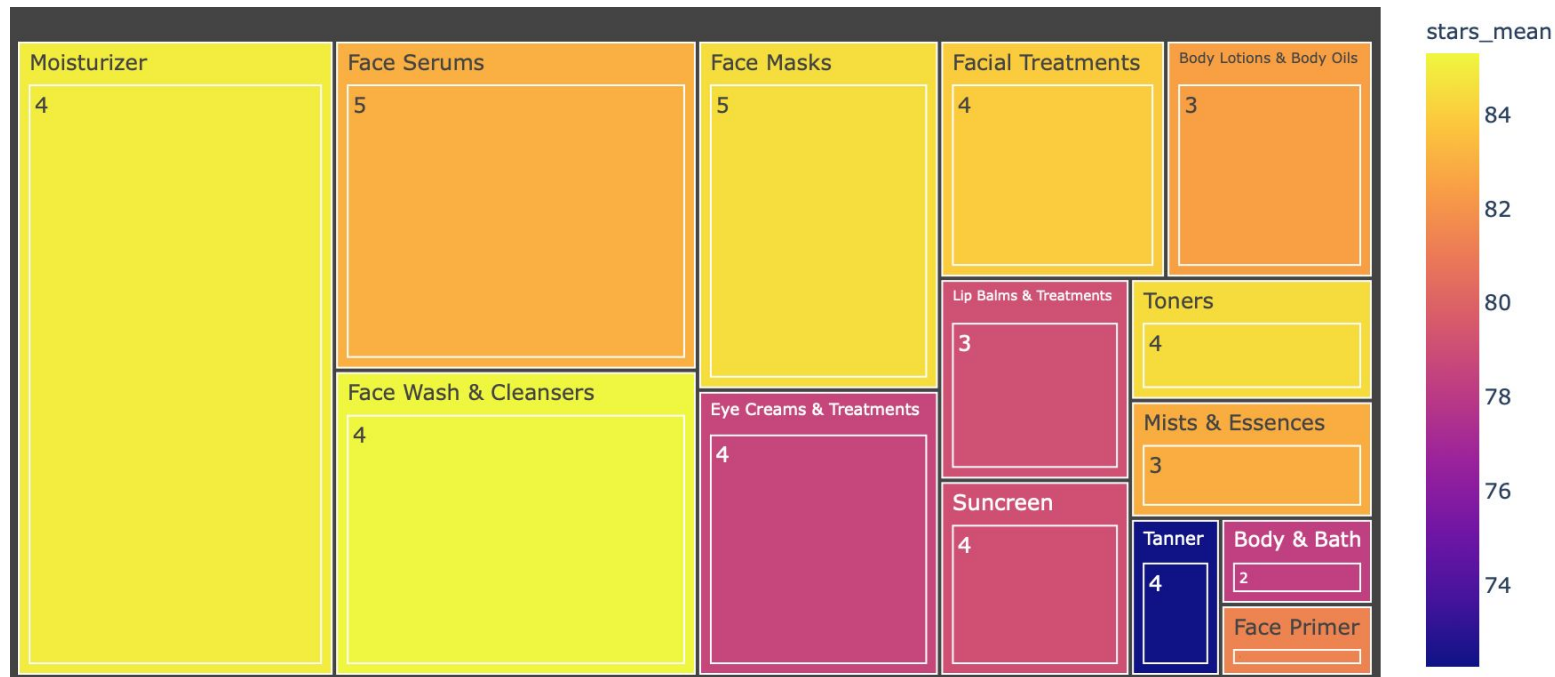
Clinical results grants good?

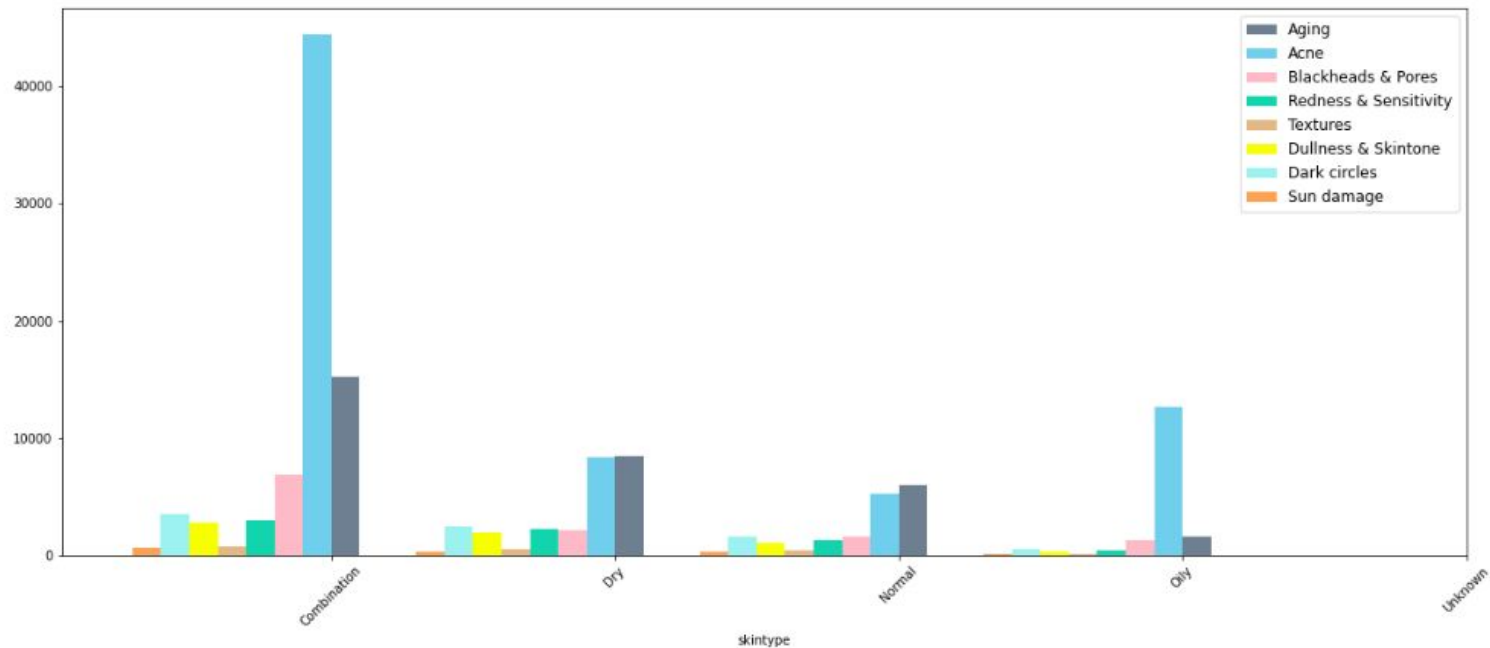
Clinical test might have some guarantees



One can do all?

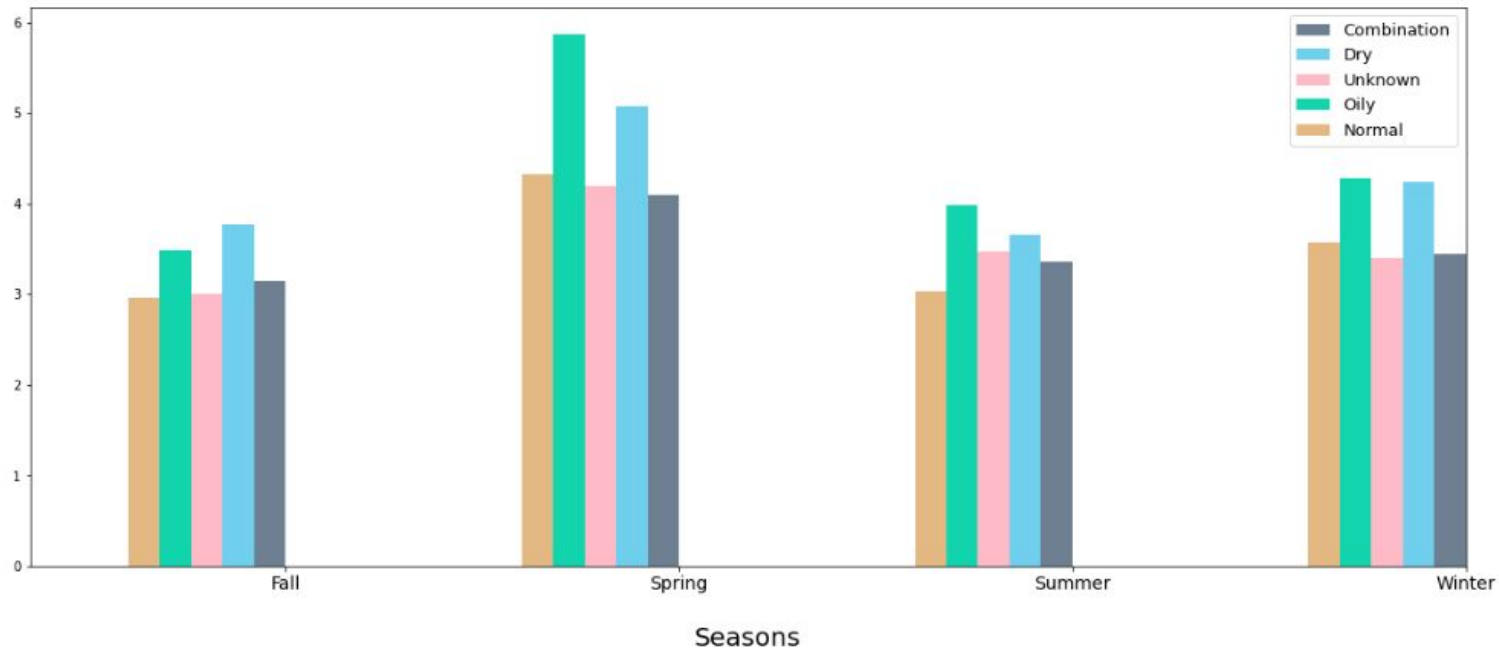
Category, Rating, Concerns - **Mask** is the winner







Who's Words are Trustful? Oily skin users





Recommender Systems

- 1 Product similarities
- 2 User Product interactions
- 3 Combination



What are we using to model?

Ratings

User A likes Product B

Users

Skin types, Skin tones, Skin concerns

Products

Ingredients, Skin type, Skin Concern, Awards, Clinical Results, Names, Brands, Categories



Recommender System



Surprise

User-product interactions

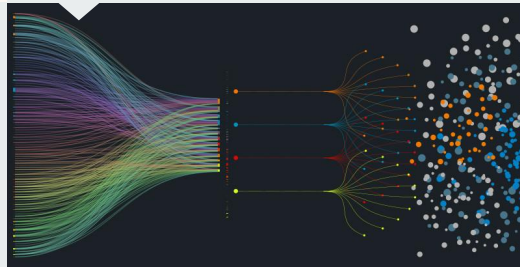
LightFM Hybrid

Product similarity & user similarity



LightFM

Product similarities or
User similarities





Recommender System & Accuracies

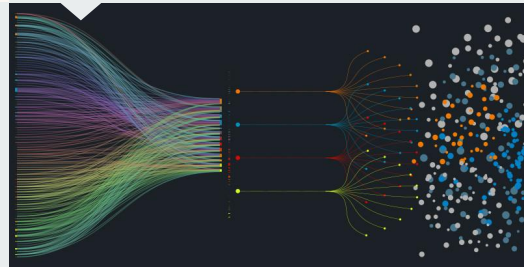


Surprise

Accuracy: 88.2%
AUC: 51%

LightFM Hybrid

AUC: 86.25%



LightFM

AUC - User only: 87.3%
AUC - Product only: 81%



Findings

Interactions

Who bought what?



Top

User Features

User's Skin profile



Second

Product Features

Product brands, name, ingredients



Third



Note for Sephora

User > Product?

User experiences speaks a lot more than a product



Further Thoughts

- What about **User Similarities**?
 - Recommender system should be more than user-product interaction; **geographical features** can be incorporated
- What about **Product Changes through Time (esp Visual Features)**
- What about **Categories**?
 - For skincare, if someone purchased a moisturizer, do we want to recommend another moisturizer or do we want to recommend a cleanser?



Thank you.

Any questions?