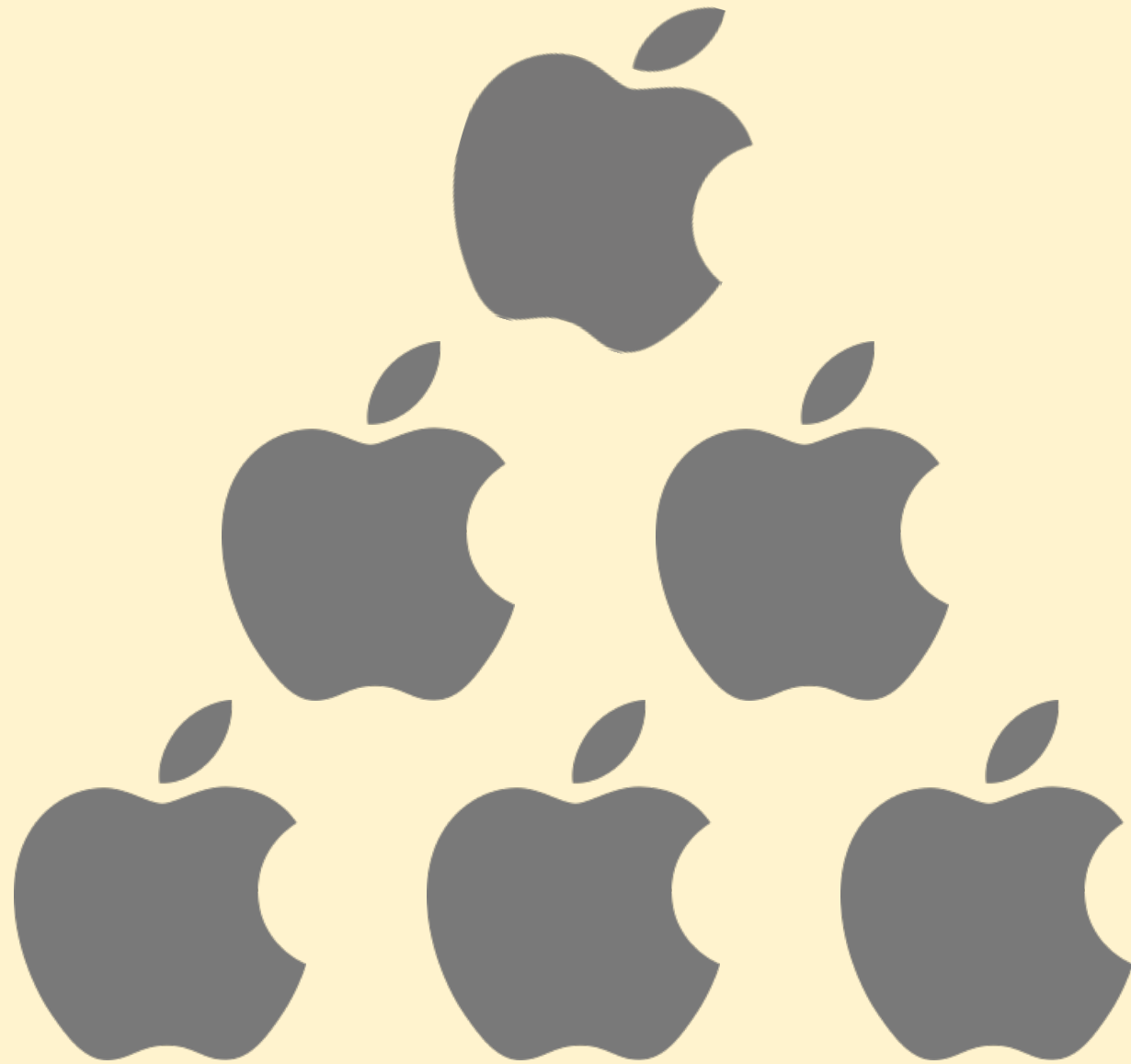


Apple Inc.



~ \$90 billion

Cosmetic Industry



\$523 billion

Gold Mining



Increase Sales

Gold Mining



~ 300 Brands



CAUDALIE
PARIS



benefit
SAN FRANCISCO

fresh.

SK-II



tarte

HOLLYWOOD, CALIFORNIA
GLAMGLOW®

high-performance naturals™

L'ORÉAL
PARIS



Elizabeth Arden
NEW YORK

boscia®

Shopping
Experience

SHISEIDO

Kiehl's
SINCE 1851

 ESTÉE
LAUDER
COMPANIES


CLINIQUE

CLARINS
PARIS

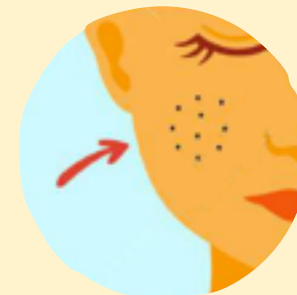
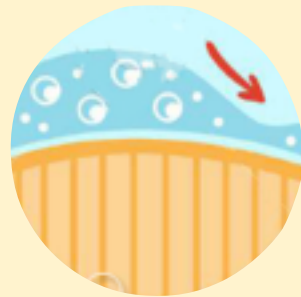
LANEIGE

~ 1,000,000 Reviews



Shopping Experience

Personal Needs



Shopping
Experience

Review Mining



For Industry

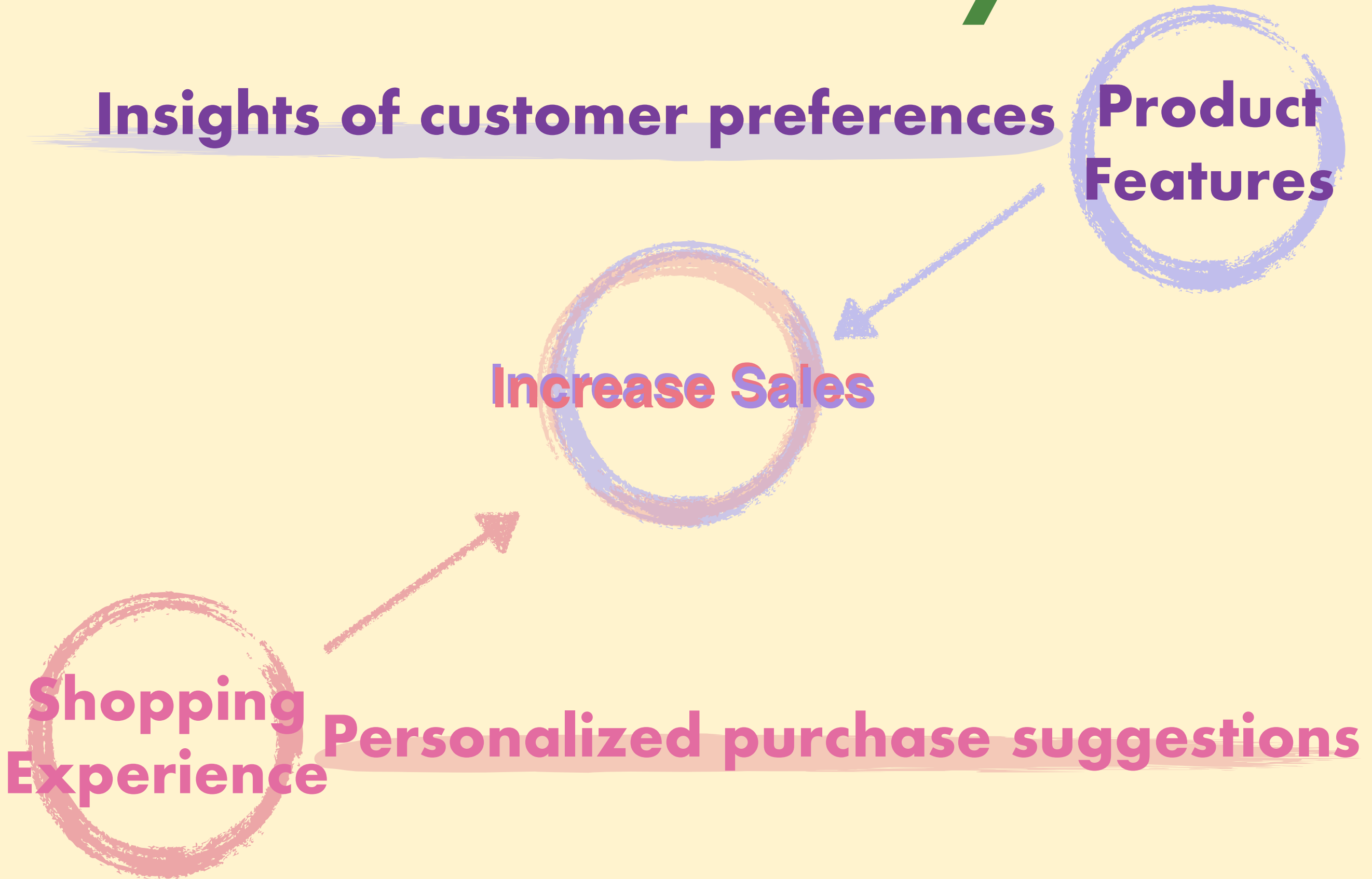
Insights of customer preferences

Product Features

Increase Sales

Shopping Experience

Personalized purchase suggestions



Behind the makeup

For Customers

Sephora Reviews

For Industry



SEPHORA STANDS

**Word
embeddings
model**

**Review
sentiment**

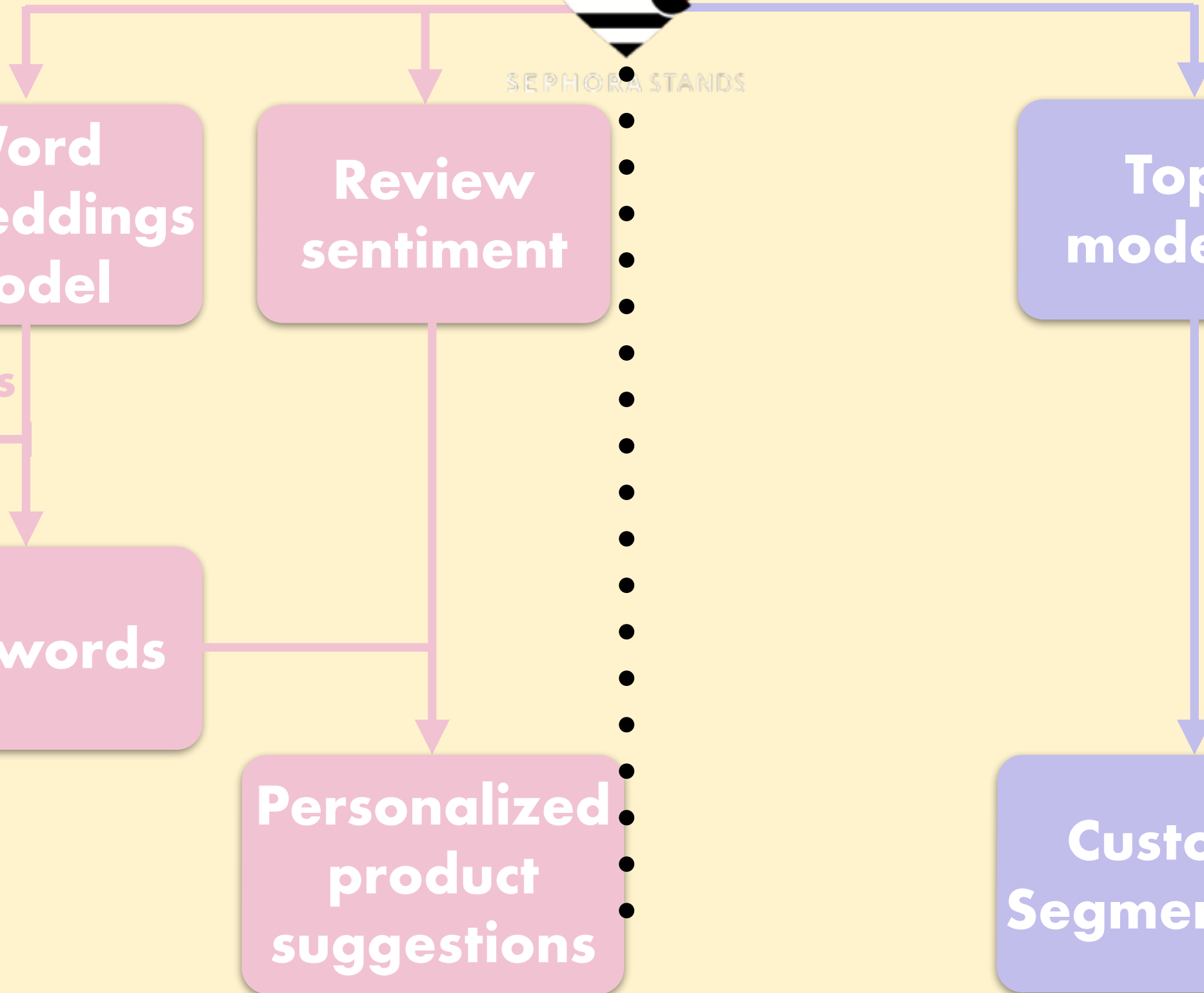
**Topic
modeling**

Customer's
skin
concern

Keywords

**Personalized
product
suggestions**

**Customer
Segmentation**



Semantic search

Sephora Reviews



SEPHORA STANDS

**Word
embeddings
model**

Customer's
skin
concern

Keywords

Word embedding models

Sephora Reviews



Word2Vec

SEPHORA STANDS

GloVe

FastText

**Word
embeddings
model**

Customer's
skin
concern

Keywords

Word embedding models

Sephora Reviews



Word2Vec

GloVe

FastText

**Word
embeddings
model**

**Contextual
&
Semantic**

**General
&
Semantic**

**Edit
distance**

Customer's
skin
concern

Keywords

Semantic search

Sephora Reviews



SEPHORA STANDS

Word2Vec

**Word
embeddings
model**

Keywords

ageing
polyphenol
crease
aging
elevens
broad
oxidants
neuropeptide
spectrum
ager

Wrinkle

Contextual sentiment

Sephora Reviews



SEPHORA STANDS

**Contextual
sentiment**

Example:

This product has neuropeptides. Happy to see my wrinkles gone!

Contextual sentiment

Sephora Reviews



SEPHORA STANDS

**Contextual
sentiment**

Example:

This product has neuropeptides. Happy to see my wrinkles gone!



This product has neuropeptides.

Happy to see my wrinkles gone!

Contextual sentiment

Sephora Reviews



SEPHORA STANDS

**Contextual
sentiment**

This product has neuropeptides. 0

Happy to see my wrinkles gone! 0.9

Semantic search

Sephora Reviews



SEPHORA STANDS

Word2Vec

Contextual
sentiment

Keywords

This product has **neuropeptides**. 0

Happy to see my **wrinkles** gone! 0.9

[**wrinkle**, ageing, polyphenol, crease,
aging, elevens, broad, oxidants,
neuropeptide, spectrum, ager]

Keyword contextual sentiment

Sephora Reviews



SEPHORA STANDS

Word2Vec

Contextual
sentiment

Keywords

Wrinkle

This product has **neuropeptides**. 0

Happy to see my **wrinkles** gone! 0.9

$$\text{Concern-Score}_{\text{review}_i} = \frac{\text{num}(\text{keyword exist in context})}{\text{sentiment score}}$$

Rank products

Sephora Reviews



SEPHORA STANDS

Word2Vec

**Contextual
sentiment**

Keywords

**Concern-Score_{productj} =
sum(Concern-Score_{reviewi})**

Wrinkle

Rank products

Sephora Reviews



SEPHORA STANDS

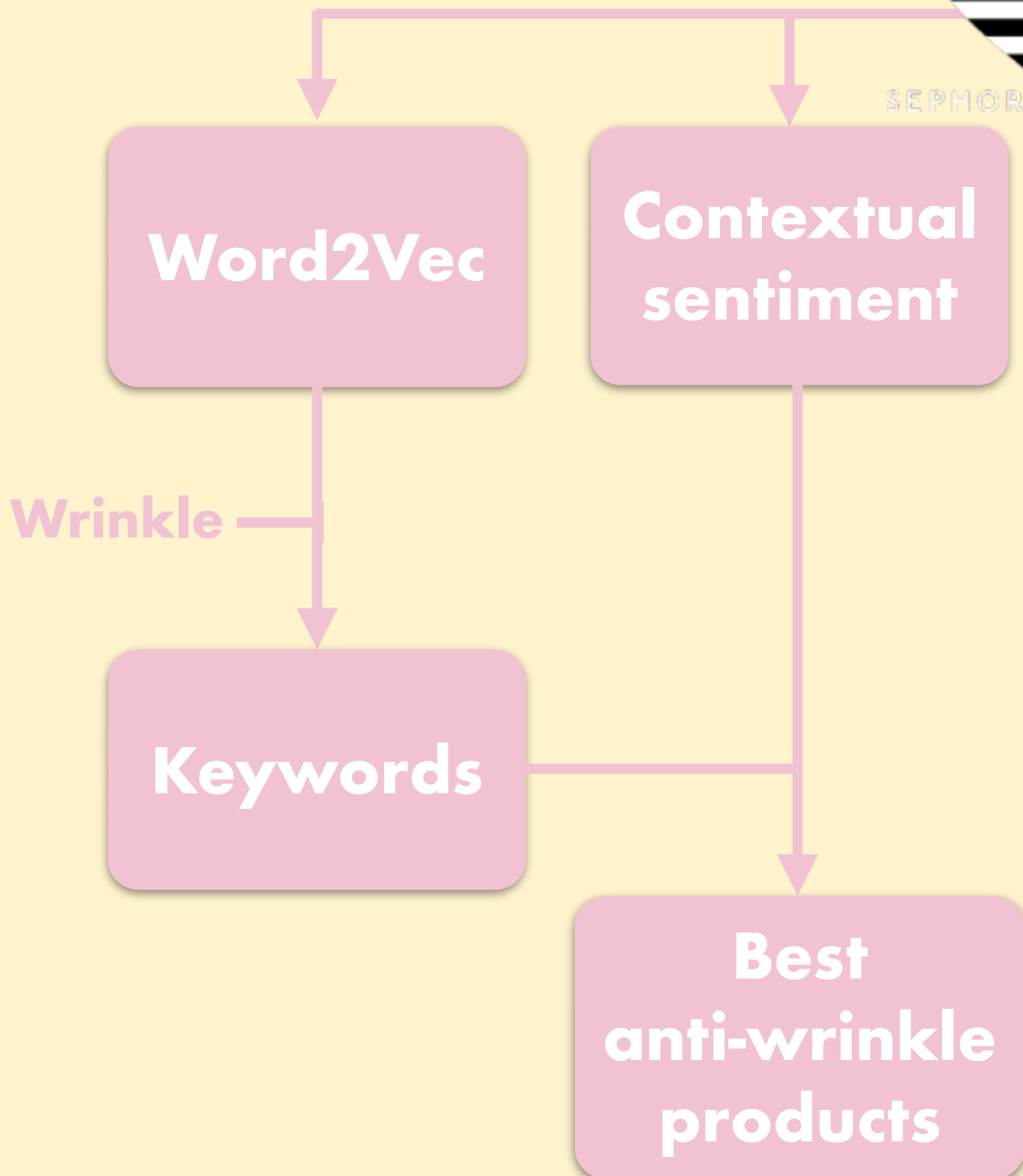
Word2Vec


**Contextual
sentiment**

Keywords

**Best
anti-wrinkle
products**

Wrinkle



Ciao Bella! 
<http://23552.club>

Bella vs. Sephora

Bella:



LANCER
Advanced Retinol Treatment
\$95.00
★★★★★



exclusive
DR. BRANDT SKINCARE
MAGNETIGHT Age-Defier™
Mask
\$24.00 - \$75.00
★★★★★



PETER THOMAS ROTH
AHA/BHA Acne Clearing Gel
\$54.00
★★★★★



online only
THE ORDINARY
"Buffet"
\$14.80
★★★★★



ESTÉE LAUDER
Advanced Night Repair
Synchronized Recovery
Complex II
\$98.00
★★★★★

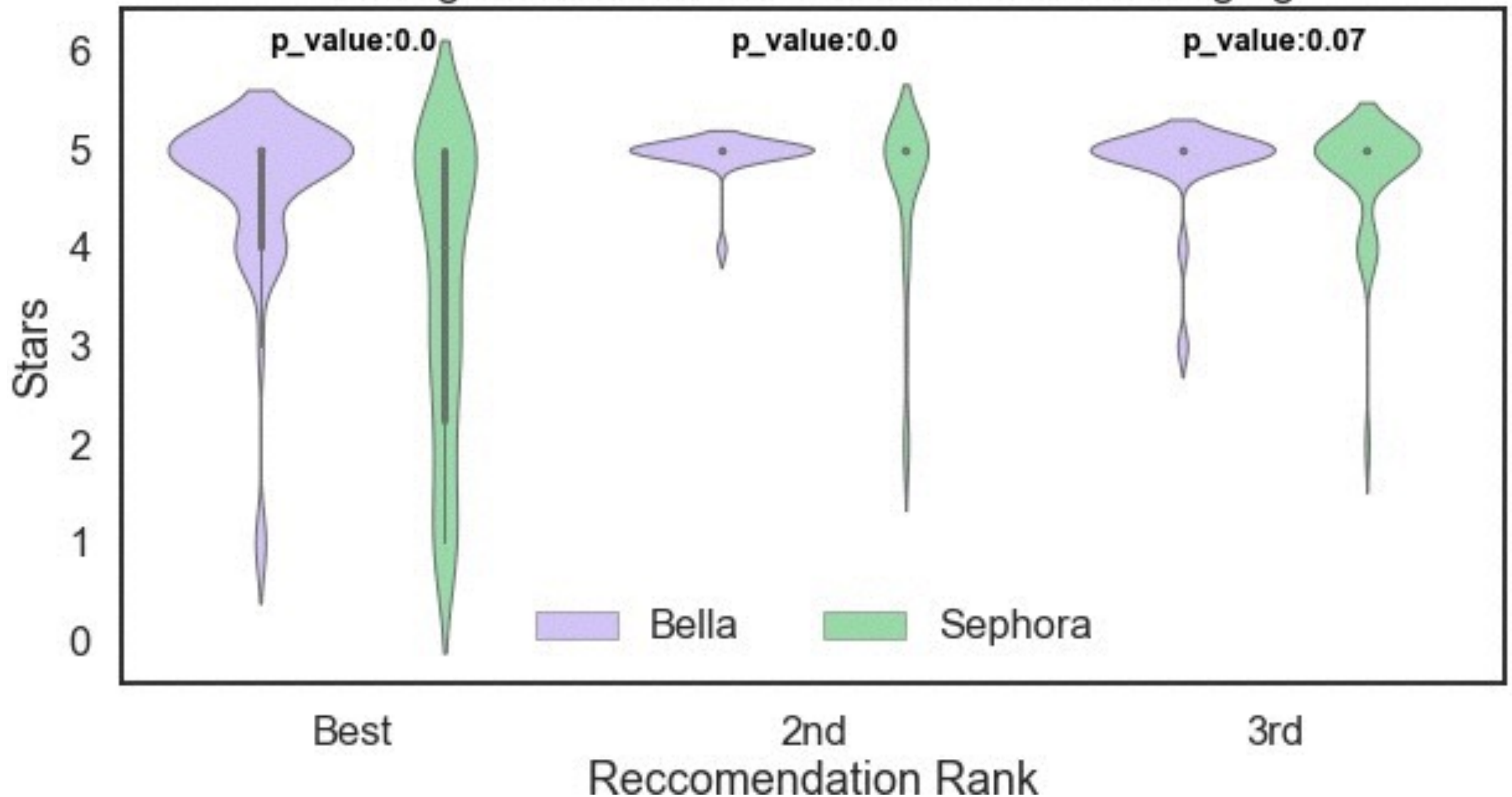


exclusive
DRUNK ELEPHANT
D-Bronzi™ Anti-Pollution
Sunshine Drops
\$36.00
★★★★★

Sephora:

Bella win!

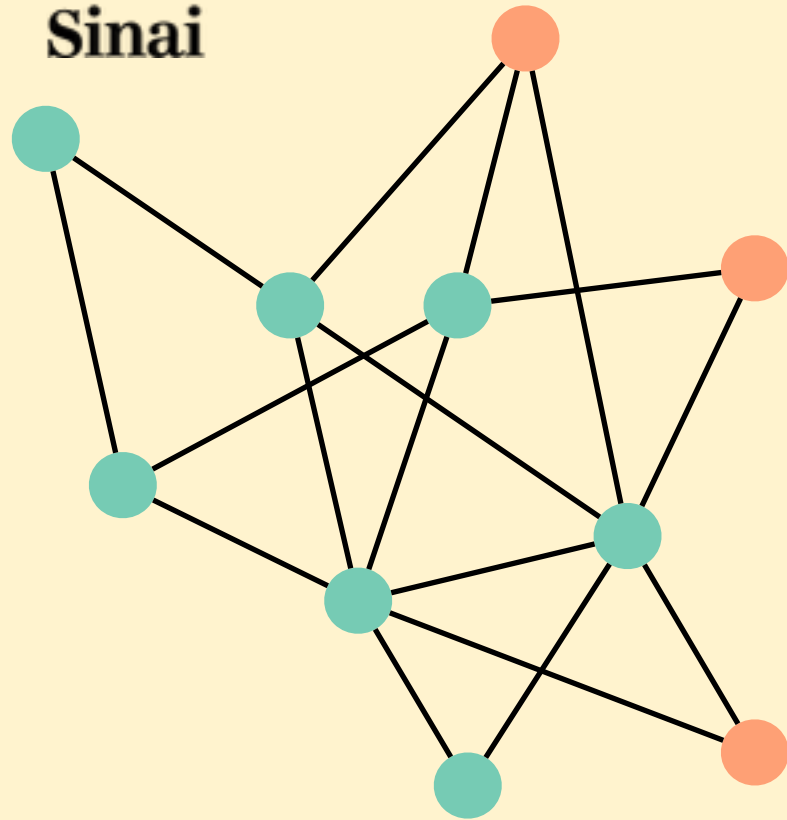
Ratings from Customers Concerned about Aging



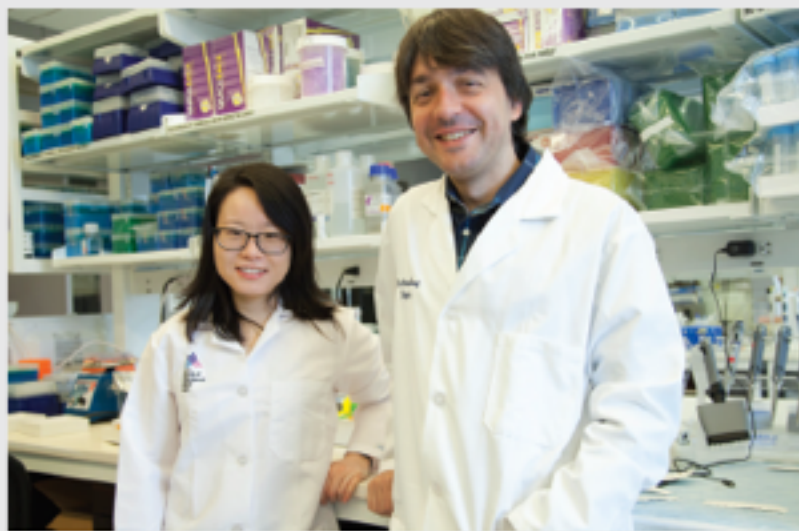
Nan Shen



Icahn
School of
Medicine at
Mount
Sinai

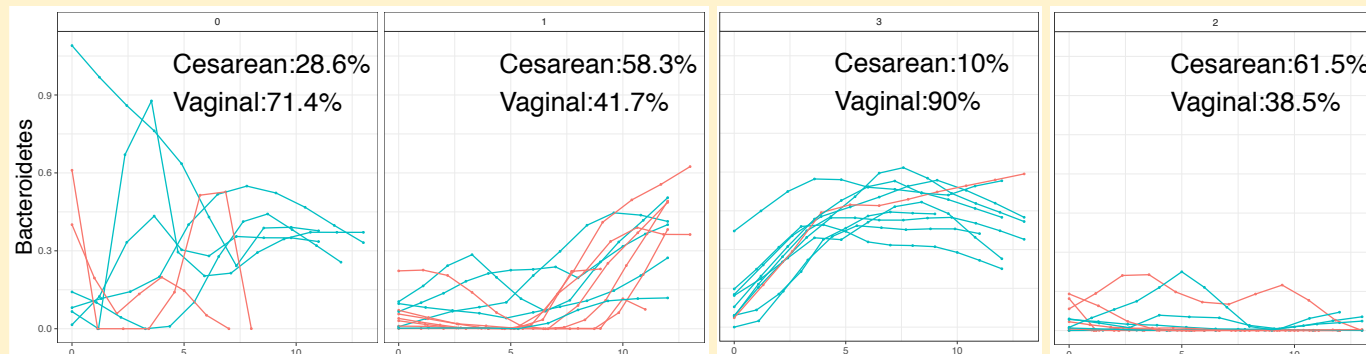


Dean's Quarterly



PhD candidate Nan Shen and Jose C. Clemente, PhD, are documenting the bacteria and bacteria-encoded functions of the Yanomami Amerindians in Venezuela.

INSIGHT



CIAO BELLA!

Beauty Advisor

Business Analyst

Bella Beauty Advisor

What are you looking for today?

Product Types




Serum

Go

Any special concerns? e.g. acne, sensitive

Skin Concerns

aging

	Product	Details
	Lancer Advanced Retinol Treatment	- Fine lines and wrinkles- Dullness and uneven texture- Loss of firmness and elasticity
	Dr. Brandt Skincare MAGNETIGHT Age-Defier Mask	- Dullness and uneven texture - Loss of firmness and elasticity
	Peter Thomas Roth AHA/BHA Acne Clearing Gel	A potent oil-free formula that minimizes the appearance of blemishes

Bella Business Analyst

Which topic are you interested in?

Topics

make up

Group people by:

Customer Group

Age

☐ Random Reviews

Go

Looking good all day!. I am an oily girl but I love liquid foundation and luminosity in products. This product works wonders to keep me matte while still using things like Tarte Rainforest of the Sea foundation, highlighter, etc. I put it on after primer in my oily areas and let set before applying foundation. I do use it once more over my makeup (carefully pat very little product, no rubbing) once the oil starts to appear (around 3 hours later) and this keeps me matte for hours longer! Also makes my pores look tiny! Love.

pretty wonderful. was little skeptical about this but curious and wanted to try it. SO glad I did. This is wonderful! It somehow covers flaws and still looks natural and not a made up look. You can layer it to obtain perfection for your own specific skin. Only drawback I think is if you have very fair skin it might not work perfectly, I don't know if it would indeed work for everyone. With darker skin you could probably mix it with the bronzer to find a perfect match for your specific skin tone. I have light to medium skin and it is perfect for me. Give it a try!

Customer Rating Distribution

