



Offsetting & Correcting Public Opinions of Palm Oil & the Palm Industry

113 Industries with MPOC



WHO IS 113 INDUSTRIES?

113 Industries brings forth the voice of the consumer using social analytics software to acquire and analyze millions of online conversations organically occurring publicly online

Consumer Behavior Modeling

Specialized team using AI to develop insights and answer strategic business questions from social data since 2013

Data capture

113 team uses Natural Language Processing software to acquire relevant conversations cleans the data to remove sponsored posts, bots, and unrelated topics

Data Architects

Dedicated team of data analysts identify different segments based on behaviors, preferences, needs, product use... and quantify them

Data Analysis using AI

Analyze organic consumer posts about any given topic to identify category data, including demographics, sources, domains, geographies



Visible data is just the tip of the iceberg

TRADITIONAL SOCIAL LISTENING TOOLS

Top terms, word clouds, topic volume

Net sentiment, passion, sources of volume

113 SOCIAL INTELLIGENCE

Behavioral patterns

Compensating behaviors

Unarticulated needs

Surprising connections

Frictions & satisfiers

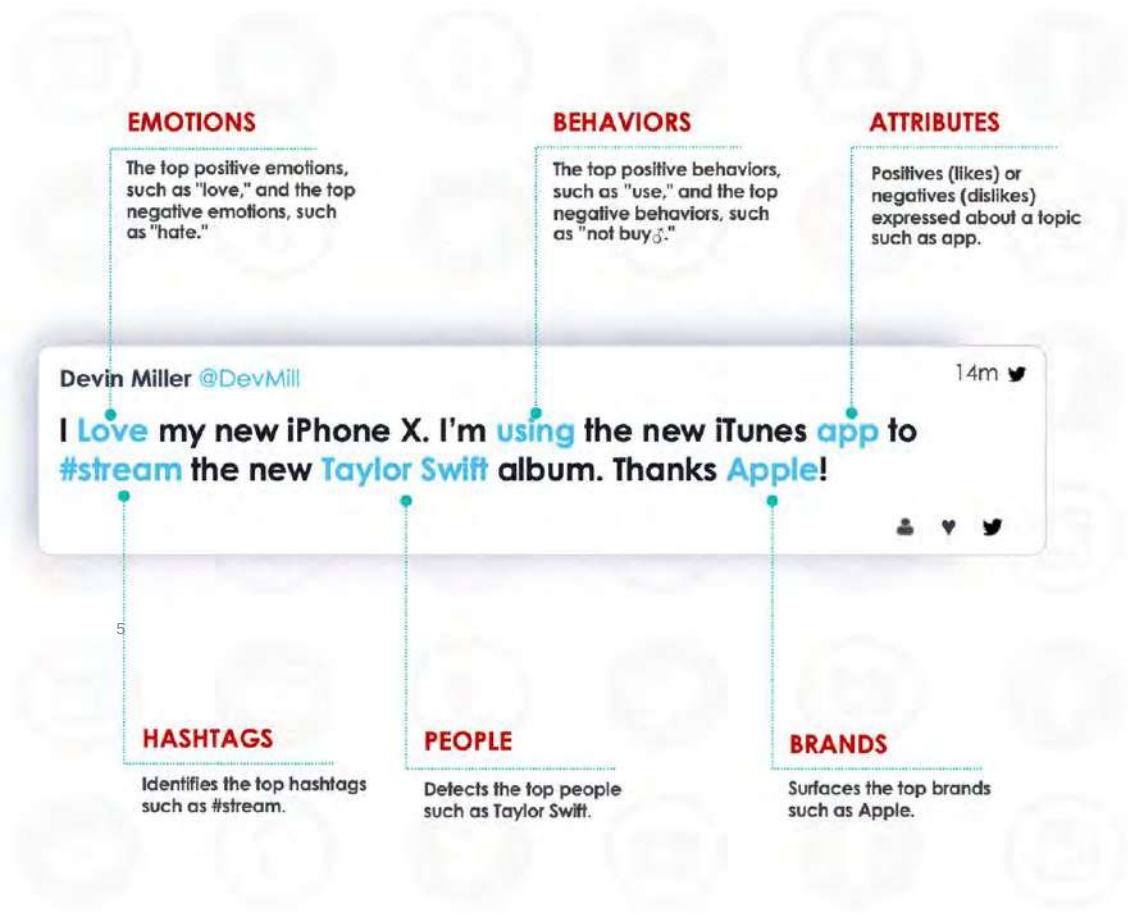
Significant depth and breadth sits below the surface within patterns of scaled language. These patterns can be uncovered through a combination of best in class technology, natural language processing expertise, and custom frameworks



THE CONTENT & THE POSSIBILITIES

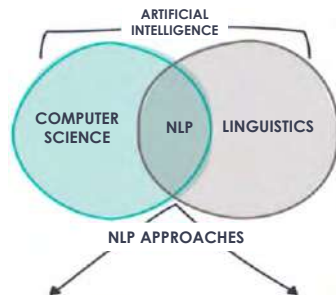
NetBase NLP tools provide
insight into nearly any topic

NLP (Natural Language Processing) is the computational linguistics field studying, mimicking and interpreting the complexity of our natural, spoken, conversational language.



THE TECHNOLOGY

NATURAL LANGUAGE UNDERSTANDING APPROACHES



1. RULE-BASED

- Context-free grammars
- Require humans to manually set parameters for grammatical syntax
- High precision, lower recall

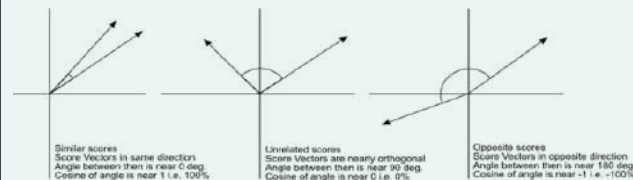
2. STATISTICAL-BASED WITH SOME MACHINE LEARNING

- Ability to predict words and intent based on historical usage

3. DEEP LEARNING-BASED

- Require large data and resources
- Subset of machine learning based on neural networks that permit a machine to train itself to perform a task

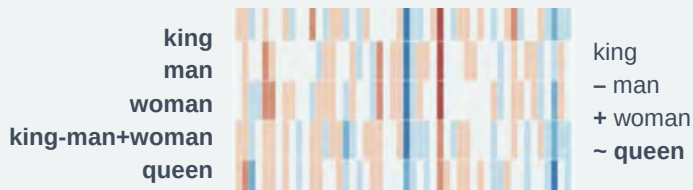
A WORD IS KNOWN BY THE COMPANY IT KEEPS



- Deep Learning approaches embed characters, words and sentences as vectors—a sequence of values. The machine encodes the entire document or piece of text as these **sequence of words or vectors**.
- Instead of just looking at a word or sentence alone, we now look at them in **context**.
- Then, we can do tasks such as **predict the next word in a sequence, answer questions, translate** text from one language to another etc.

VECTOR EMBEDDINGS retain a lot of interesting information & relationships

Vectors allow us to do mathematical functions, like finding “similar” words by computing the dot product or cosine between two vectors.



CLASSIFYING A CONSUMER

BASED PURELY ON LANGUAGE

USING AI

Two highly similar sentences, yet the need of the consumer is significantly different:

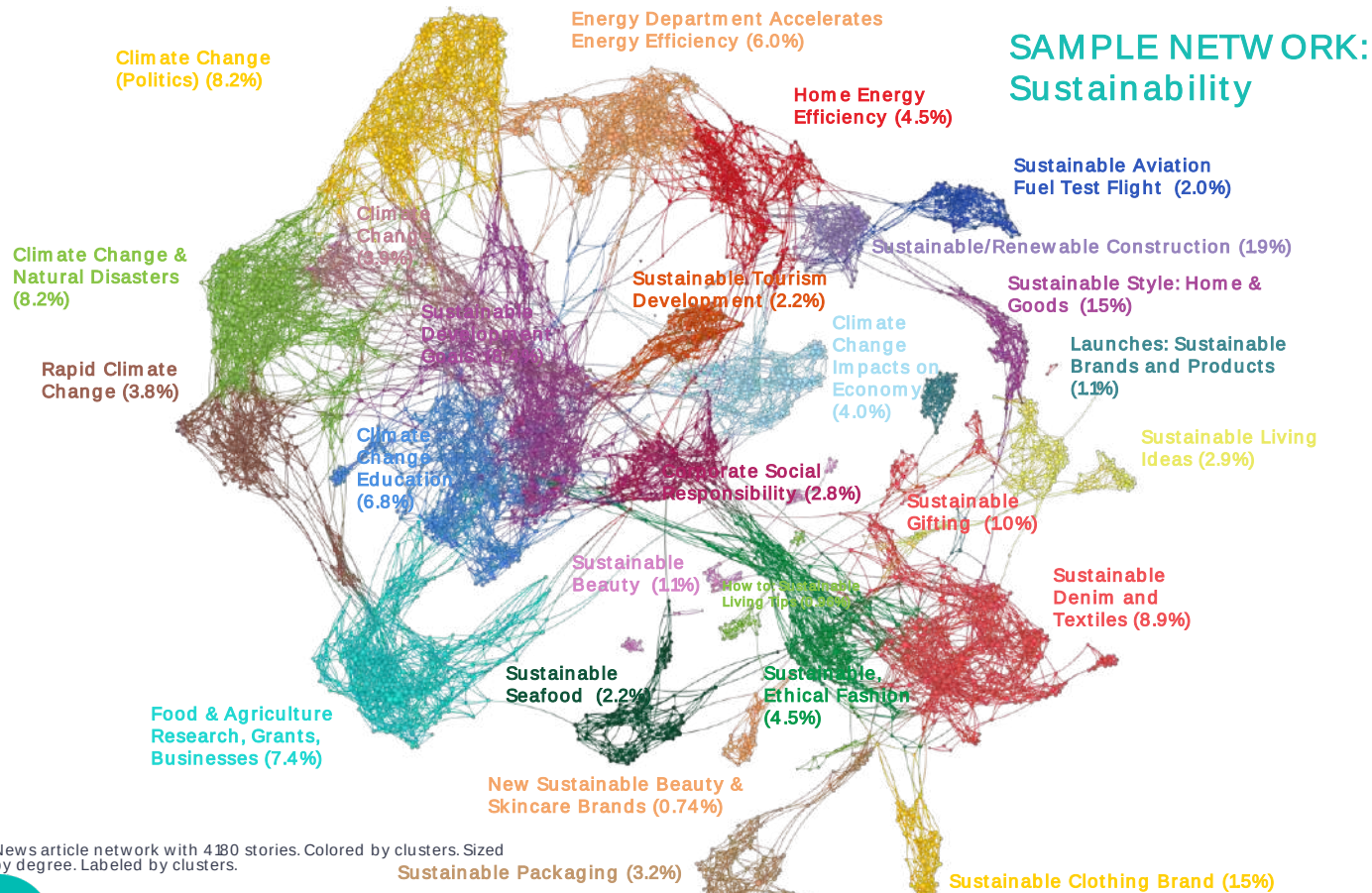
1. I only add **half a teaspoon** of sugar

1. I only add half a teaspoon of sugar → **Indicates control, moderation.** *Control Exercisers (0.98)

2. Add **half a teaspoon** of sugar. So yummy!

2. Add half a teaspoon of sugar. So yummy! → **Indicates flavor/taste enhancement. Enjoyment!** *Flavor Lovers (0.96)

TECHNOLOGY: CLUSTER NETWORK EXAMPLE



● Sustainable Denim and Textiles	8.9%
● Sustainable Development Goals	8.4%
● Climate Change & Natural Disasters	8.2%
● Climate Change (Politics)	8.2%
● Food & Agriculture Research, Grants, Businesses	7.4%
● Climate Change Education	6.8%
● Energy Department Accelerates Energy Efficiency	6.0%
● Sustainable, Ethical Fashion	4.5%
● Home Energy Efficiency	4.5%
● Climate Change Impacts on Economy	4.0%
● Climate Change	3.9%
● Rapid Climate Change	3.8%
● Sustainable Packaging	3.2%
● Sustainable Living Ideas	2.9%
● Corporate Social Responsibility	2.8%
● Sustainable Seafood	2.2%
● Sustainable Tourism Development	2.2%
● Sustainable Aviation Fuel Test Flight	2.0%
● Sustainable/Renewable Construction	1.9%
● Sustainable Clothing Brand	1.5%
● Sustainable Style: Home & Goods	1.5%
● Sustainable Beauty	1.1%
● Launches: Sustainable Brands and Products	1.1%
● Sustainable Gifting	1.0%
● How to: Sustainable Living Tips	0.96%
● New Sustainable Beauty & Skincare Brands	0.74%



The success of an AI project depends on the communication between AI technology specialists and market experts, MPOC

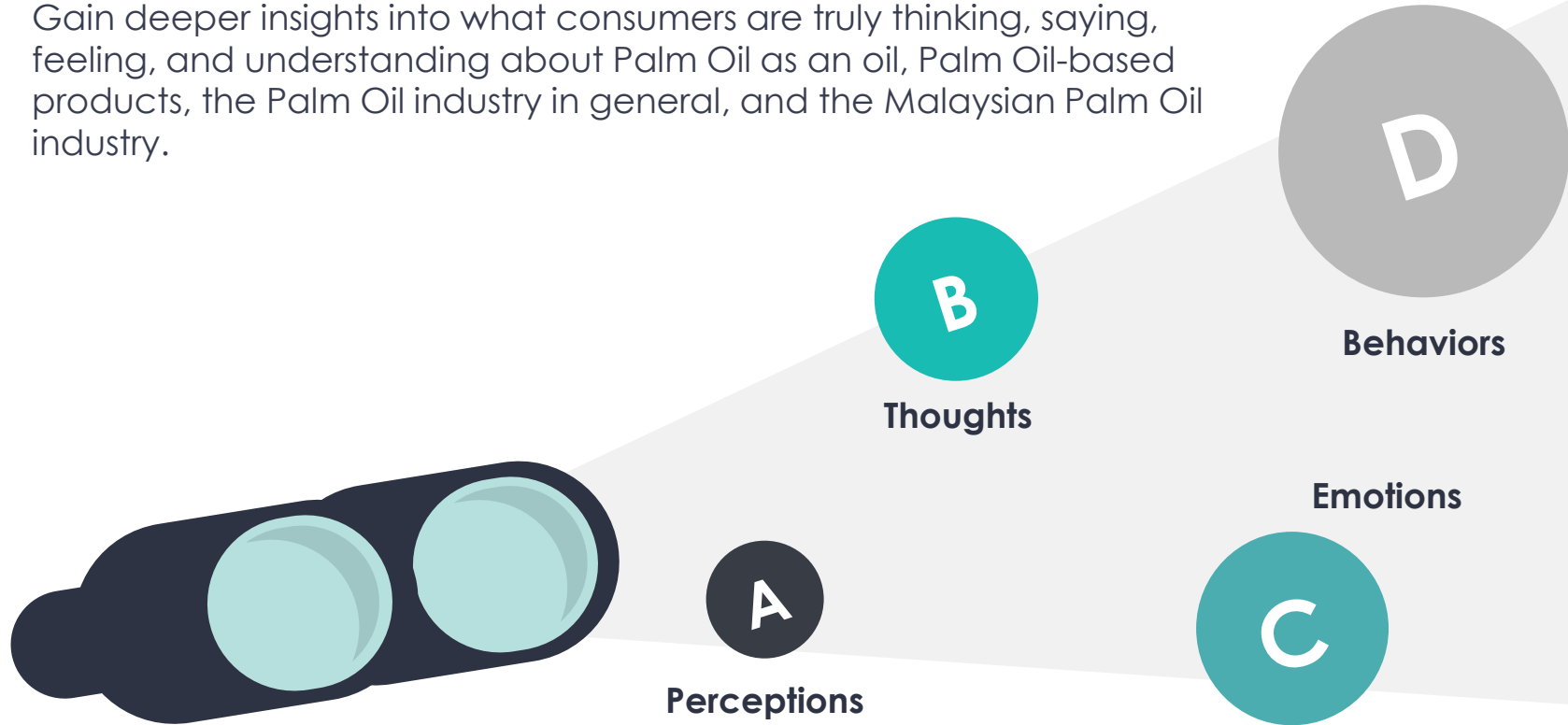
8





Research Objective

Gain deeper insights into what consumers are truly thinking, saying, feeling, and understanding about Palm Oil as an oil, Palm Oil-based products, the Palm Oil industry in general, and the Malaysian Palm Oil industry.





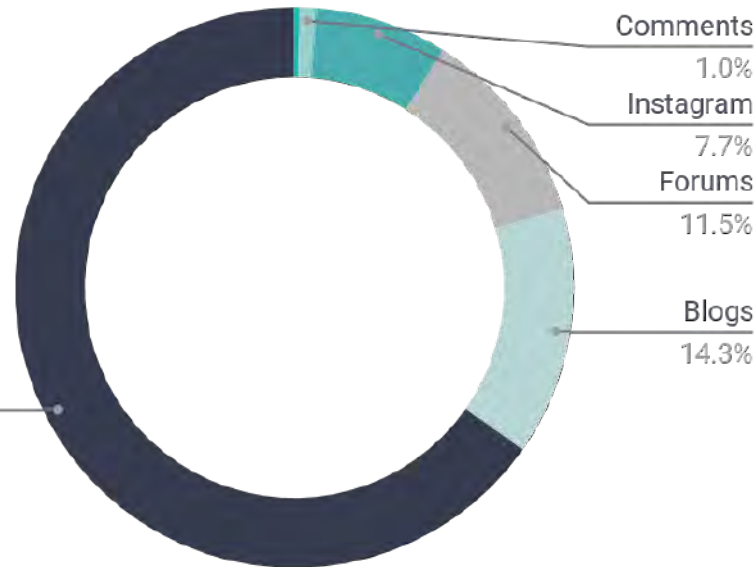
RESEARCH METHODOLOGY & BACKGROUND:

OVER 240K ONLINE POSTS

Pertaining to "palm oil" timestamped between May 2019 & April 2020

SOURCES OF CONVERSATION

N=241,192



TOP TERMS USED





SEGMENTS

Who is talking about palm oil and how do they identify their preferences?

BEHAVIORS

How are consumers using (or not using) the product?



ATTITUDES

What are consumers' stances on products with palm oil and the industry overall?

ACTIVATION

Which segments offer the highest opportunity and how should you communicate with them?



***NOT ALL
OPINIONS
ARE ROOTED
IN FACT***

Highly VOCAL ≠ Highly INFORMED

While some consumers are aware and even seek to understand more, a subset of users have a rudimentary understanding of the situation's complexity.



PRIMARY DRIVERS OF CONVERSATION ARE

To **advocate against** palm oil

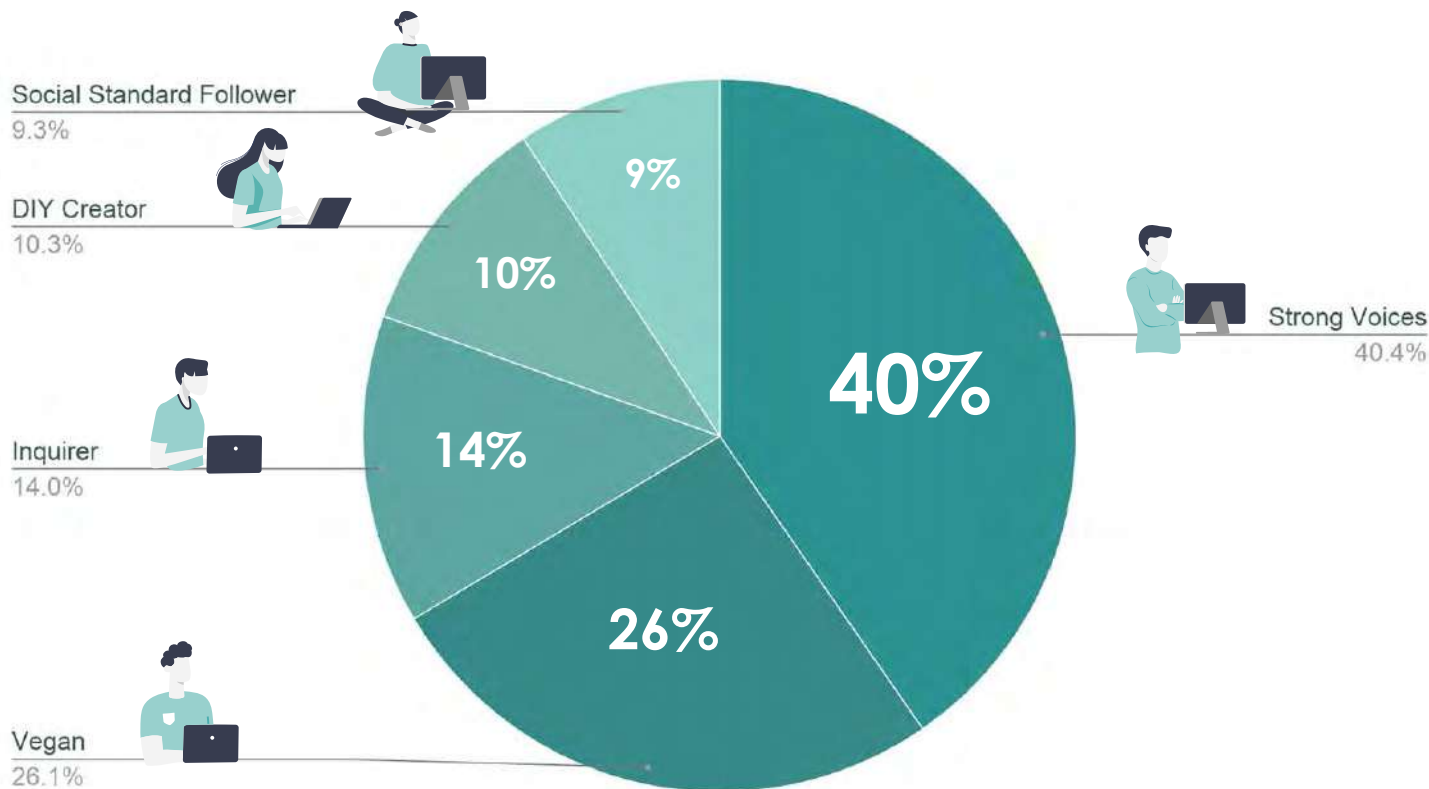
To **advocate for sustainable** palm oil

To **vent** about products that contain palm oil

To **ask questions about products** that do/do not contain palm oil

To **ask general questions** about palm oil

The study revealed five groups of people who identify based on their perceptions, attitudes, willingness to use palm oil



Strong Voice

Goal is to be heard and push their point on others, through **facts** and **opinion-pieces**. A group of these consumers are **for sustainable palm oil**, while others are **completely against palm oil** altogether.

Loud Vegan

Follows a vegan lifestyle to **reduce their environmental footprint** and **avoid harm caused to animals**.

Inquirer

Knows very little about palm oil, but **wants to learn in order to make informed decisions**. They **look to others online as a reliable resource**.

DIY Creator

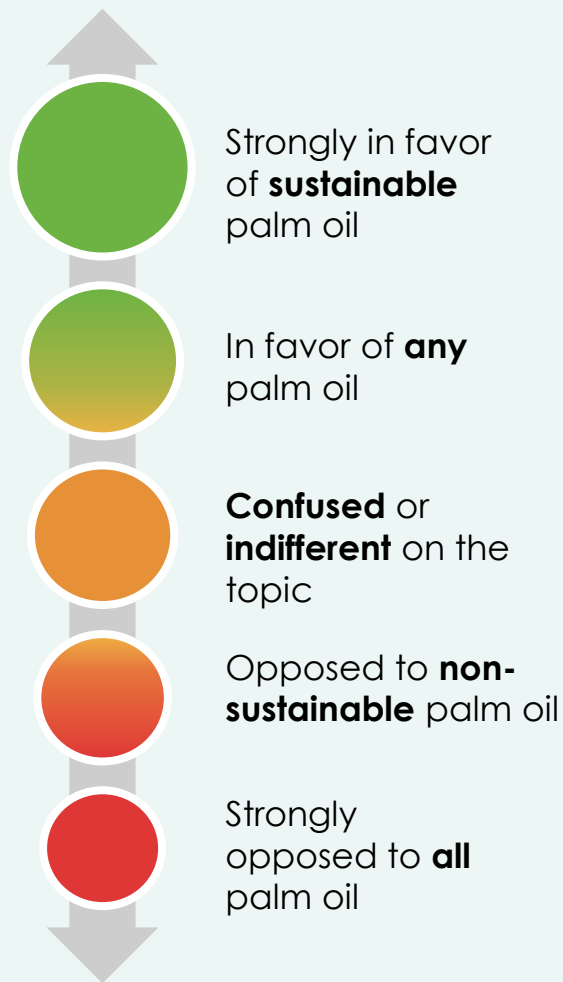
Makes **homemade food & products free from palm oil** (with the exception of red palm oil). They are motivated by having **products that align with their needs and personal values**.

Social Standard Follower

Easily influenced by strong sources and personalities. They are **idealistic in their behavior** and do not always put effort into research, but are receptive to ideas that sound 'right'.

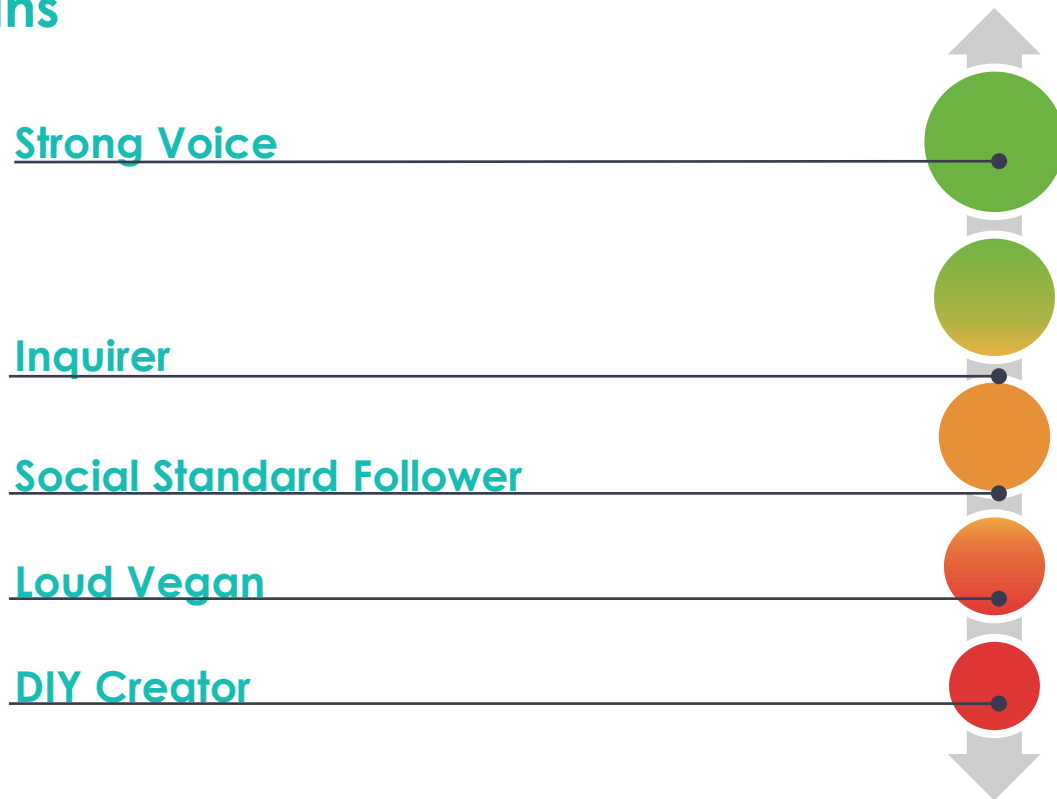


The average online consumer is not highly opinionated about palm oil as an ingredient or industry, but pockets of the online hemisphere are highly **vocal, interested, and passionate**





Ranking segments by their favorability toward palm oil uncovers the opportunity to use the Strong Voice to shift the perceptions of other groups, like the Inquirers, the Social Standard Followers, and the Loud Vegans



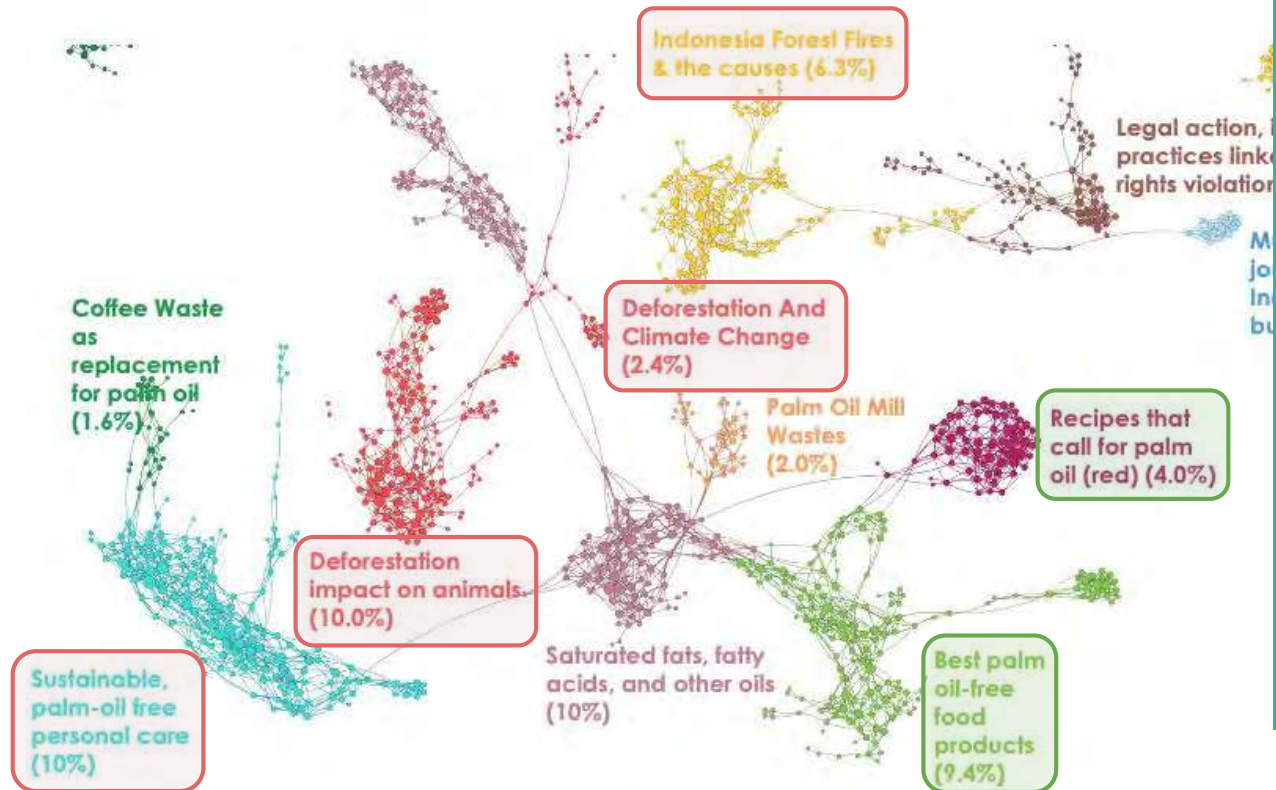


**Using AI-detected cluster to find
themes among published content**



Palm Oil Topic Network of Published Stories

News article network with 1665 stories. Colored by clusters. Sized by degree. Labeled by clusters.



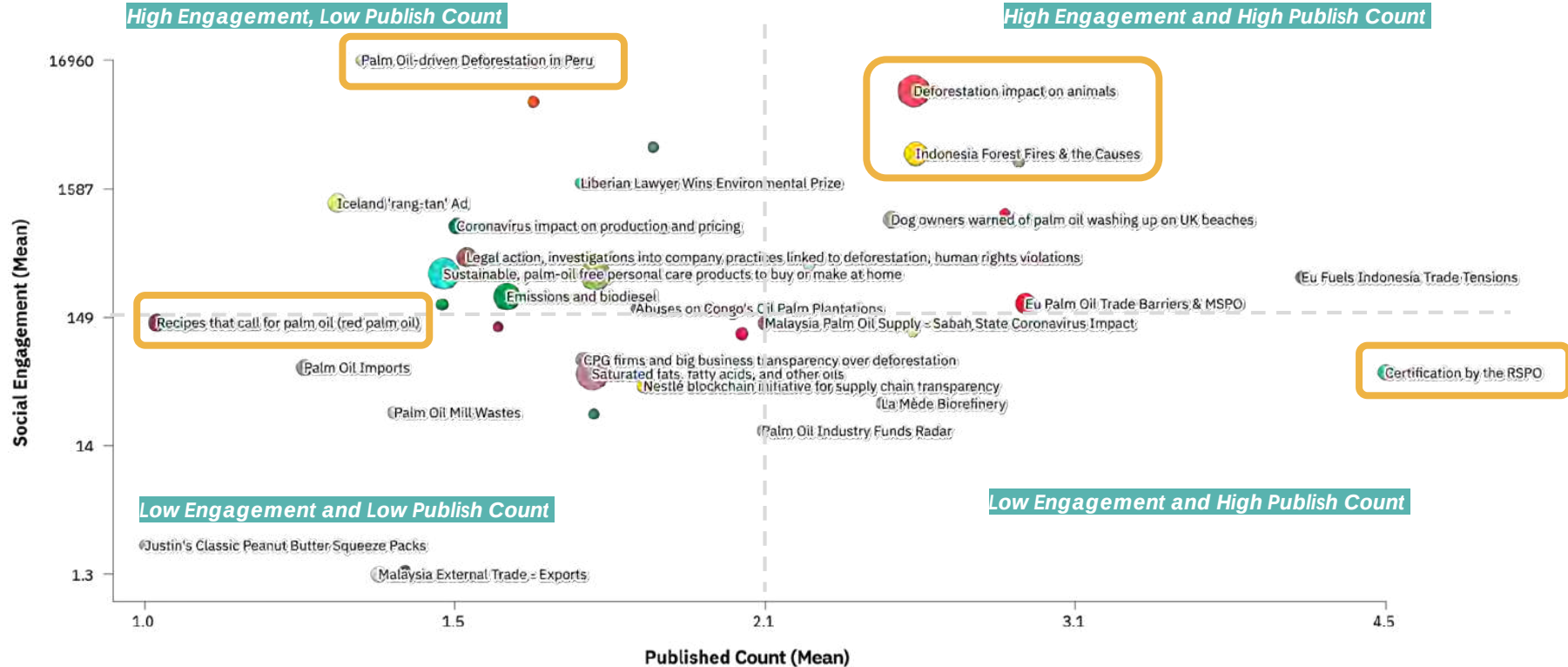
Similar to social conversations, publications focus on **sustainable palm**, **deforestation/climate change**, and foods/products that are **PO-free**

Consumers are soaking up this content and recycling it in their own words.



SOCIAL TRACTION

The social traction scatter plot provides a measurement of which events generated the most media mentions





Resulting Recommendations for Improving Perception & Increasing Adoption of Sustainable Palm Oil

FOCUS ON

communication efforts on consumers more likely to be receptive of pro-palm messaging.

AVOID

consumers with strongly negative perceptions for now; positive impact would require heavy investment in a massive pro-palm messaging campaign with low return in the short term.

Platforms

- Wellness Benefits
- Dietary Benefits
 - **Keto:** strong opportunity to push the healthy fat message
- Saving the Environment
- Supporting Communities in Need

Language

- Consistently include sustainable
- Explore use of 'Free from', for example 'free from non sustainable sources of palm oil'
- Positive impact of sustainable palm trees on the environment

Consumer Segments

- Follower and Inquirer
- Strong Voice to be considered but lack of willingness to learn will be a barrier to reception of communication



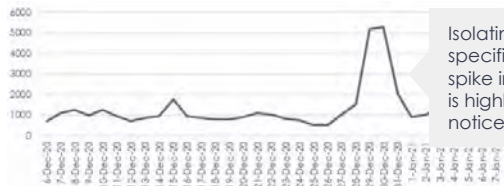
What's happened since the research wrapped?

Ongoing monitoring of news story traction and engagement

GIRL SCOUTS AP NEWS STORY, CHILD LABOR CONNECTION TO PALM OIL

While press related to Girl Scout Cookies caused buzz in the media, compared to the past 6 months, the trendline appears on par with monthly spikes that wax and wane regularly

Monthly Post Volume (Month Ending 1/7/21)



Isolating Palm Oil specific posts, the spike in December is highly noticeable...

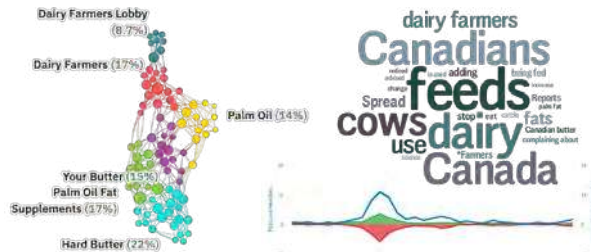
6-Month Post Volume
(Period Ending 1/7/21)

...and, though significant, in perspective of the latest 6 month post volume, it is in line with or smaller than other periods of high attention and should be monitored but not trigger panic



BUTTERGATE

To understand the impact of this event from all sides, we collected news stories published and digital posts from consumers mentioning the event.



NPR and CBC garnered the most socially engaged stories.

While Canadian and US news outlets both released roughly the same number of stories in late February and early March, **media pick-up was far stronger in Canada** than the US

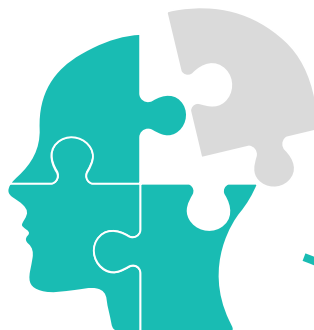
On social, "Buttergate" **served more as a gateway** for discussion of **existing** views surrounding palm oil.

The **prevailing sentiment** is that the issue was less about the butter and more about the **environment**, which is consistent with the observations made during Phase 1 research.

FUTURE POSSIBILITIES WITH AI IN OUR BACK POCKETS

NLP can be applied to a plethora of unstructured data, adding meaning to previously untapped sets of information to truly understand customer needs

Human analysis builds the foundational understanding of a subject. *This is just the starting point.*



From here, AI and NLP can be leveraged to systematically classify posts and extract features based on contextual similarity using **Supervised Learning or Unsupervised Learning**.

Continuous improvements to machine learning algorithms drives new applications and ways to **target the right consumer, create the right product, or send the right message.**





THANK

YOU

113 INDUSTRIES

anupams@113industries.com

jennam@113industries.com