Using AI to Understand the Patient Voice

Organized by Pharma SUG
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Sternutation =
What Does the Patient Voice Tell Us?

- New symptoms
- Side effects
- Outbreaks
- Diagnosis
- Barriers to treatment
- Daily challenges
- Sentiment
- Emotional drivers
- Trends
How Do We Uncover the Patient Voice?

“Social Intelligence

The practical application of digital conversations to answer questions and solve challenges using qualitative data in a quantitative mode, at scale.”
Social Listening
Social Listening
Social Listening

Every state mandates vaccines for children as a requirement to attend school. They’re very effective. But adding the COVID-19 boosters to the list of required shots is not a simple process. My Action Alert Reactions

Two weeks after vaccination, half of all adults report no side effects, the unanswered are more concerned. Do you think you will get vaccinated?

A couple in southern Indiana visited a local Walgreens last week to get flu shots for themselves and their two children, ages 4 and 3 years old. According to the CDC, they were booked when they arrived early after leaving the pharmacy.

Most kids in my son's class wanted to get the vaccine, mostly those who didn’t and accessing them as “vaccines” are not one homogeneous thing. Every vaccine is unique and has different biological effects in the human body. Just because one vaccine works for you does not mean it will work for everyone.

Nick Hodes of PANDA doesn’t want you to get vaccinated so he can make money.
Social Listening

- Analysis date: 1/6/20 - 10/25/21
- Posts and Mentions trend from Jan '20 to Oct '21
- Summary Metrics:
  - Authors: 66,004,574
  - Potential Impressions: 174,527.9B
  - Posts: 2,925.4M
  - Male Authors: 14.2M (21.1%)
  - Female Authors: 11.1M (16.8%)
  - Videos: 243.5M (8.3%)
  - Images: 601.4M (20.6%)
Social Listening

Kid COVID vaccines. My personal story. Please watch and if you are as concerned as I am please no Instagram Tiktok and anywhere else you can think of. Thank you all so much. #NotYourWax #More...

Reading Ross and Wilson Anatomy and Physiology for nms444. Trying to enjoy some vitamin D while the vaccine and my immune system do its magic! #Kids are playing with bubbles! (Never too old!)

I wouldn’t have agreed to HPV even before I had my awakening! Never got flu shots for me or my k known issues with HPV. But HPV wax looks fantastic compared to cow vax.

Already have an appointment for my kids’ Covid #vaccine. Let’s do this!

FINAL HOUR 931 - URGENT WARNING DROP EVERYTHING AND SEE - WATCHMAKERS

These are the very last lines: Run to Jesus Christ now! JESUS IS COMING, WAKE UP NOW! WE ARE NEARLY! WAR IS IMMENENT! --- THE END GAME IS NEXT AND YOUR KIDS ARE THE TARGETS --- C: The...

CONNECT Home Briefings DML Morning Briefing Fri. Oct. 22: Biden dizzies cops, first responders, and free

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If your kid has a vaccine, I do agree with you they should be able to get a digital certificate.... In Vic attached to my covid check in app. Doesn’t make sense for the kids not to have the same choice.
Conversation Themes for "Coronavirus"

Date Range: Nov 27, 2019 - Feb 27, 2020
Last Updated: 27 Minutes Ago

- Contamination, Infectious, En... 8.30%
- Outbreak Kills, Death Outside... 7.62%
- China Is Building, @Globaltim... 6.37%
- Health Emergency, Disease C... 6.30%
- Comisión Nacional, Toll In Chi... 5.49%
- Province At The Centre, Orga... 5.25%
- Quarantined, Passengers, Pas... 5.01%
- Acaba De Advertir Que Puede... 4.75%
- Apoyo A Uno De Los Acusado... 4.47%
- Immediate Risk, @Bbcworld,... 4.46%
- Bien Et Les Dernières Infos, Pr... 4.37%
- Conferencia, Suspechoso, Arg... 4.35%
- @Jenniferatntd, #Wuhanoutb... 4.32%
- Economy, Prices, Oil 4.08%
- Emergency Committee On Ne... 3.82%
Statistical Natural Language Processing

- Sentiment/Passion
- Meanings
- Morphology
- Syntax
- Semantics
- Pragmatics
- Translation
How NLP Works

The iPhone has never been good.
The iPhone has never been this good.
I want an iPhone because they're adorable.
I covet an iPhone as it is adorable.

iPhones are wanted by many people due to how adorable they are.

I want the iPhone, which is adorable...

I want the iPhone. It is adorable.

I want an iPhone as it has lots of apps and is adorable...
I want my iPhone to look adorable.

I want my iPhones to show you the adorable shoes I want.
ACCURACY

SENTIMENT: 87%
LIKES & DISLIKES: 87%
BEHAVIORS: 91%
EMOTIONS: 99%
How Does This Help a CRO?

- Identify Adverse Events
- Reach Patients at Various Journey Points
- Barriers to Treatment
- Sentiment Around Clinical Trials
- Disease Behavior Trends
QUESTIONS?

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