

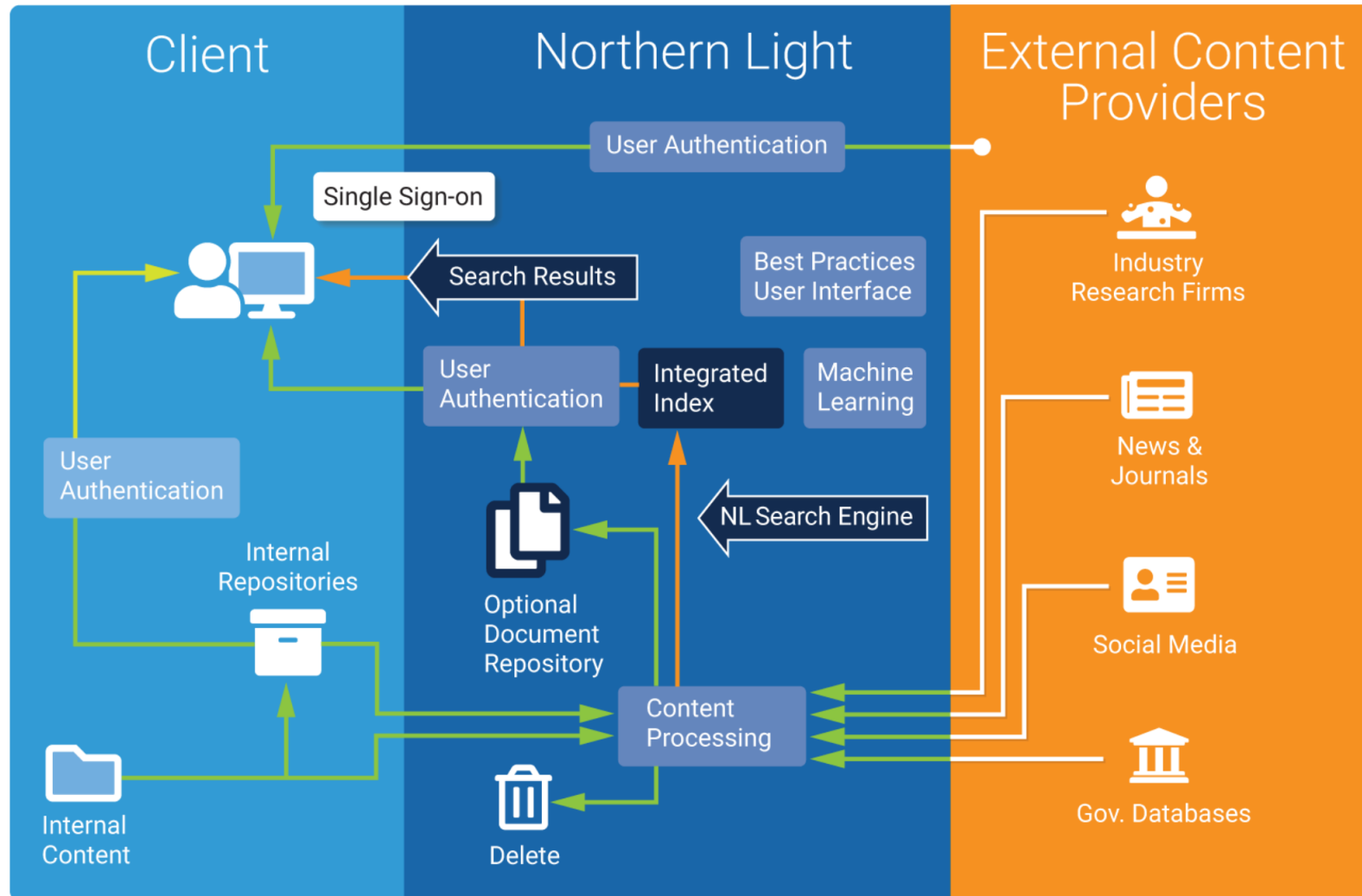


Northern Light

Game-Changing Breakthroughs in Knowledge Management

October 1, 2019

Northern Light provides machine-learning powered knowledge management platforms for market research and competitive intelligence



The road to cognitive computing is paved with good intentions



“Currently, 80% of U.S. CEOs believe that AI will change the way they do business in the next five years.”

Scott Likens, PwC, The Future of AI in America: What All Leaders Should Consider, February 2019

“Although the potential for success is enormous, delivering business impact from AI initiatives takes much longer than anticipated.”

Chirag Dekate, Gartner, Gartner Predicts the Future of AI Technologies, February 2019

“But there are challenges: defining an AI strategy, finding AI-literate workers, getting data AI-ready, and ensuring AI is trustworthy and responsible.”

Scott Likens

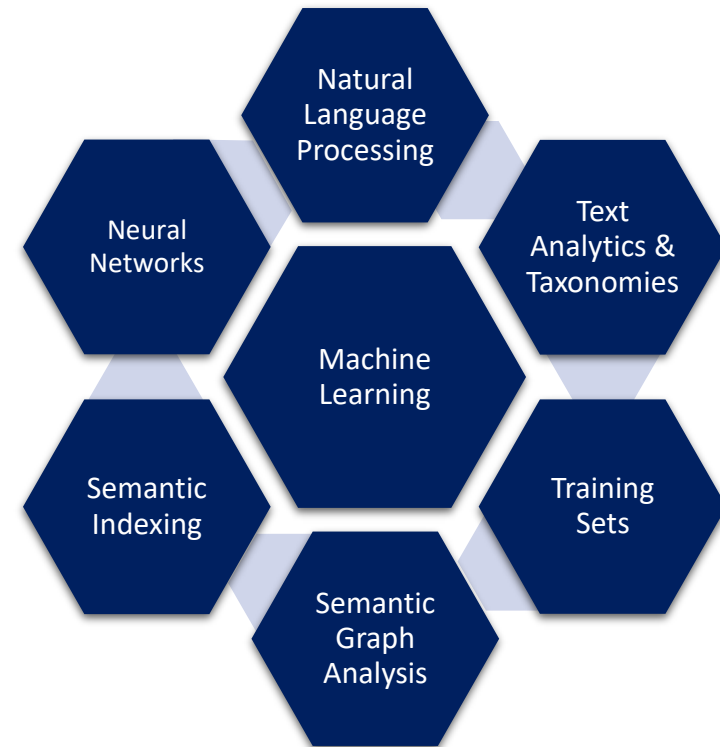
“Can’t we just buy one of those AI programs and turn it loose? It’s so smart won’t it just figure it all out?”

SVP at a Fortune 100 company last year

Successful implementations involve many AI domains and disciplines



- ❖ Use case expertise
- ❖ Large amounts of available content
- ❖ AI application suite
- ❖ Text analytics to generate effected focused training sets
- ❖ Huge computer processing infrastructure
- ❖ Machine learning algorithms





Guide to successful cognitive computing

- ❖ Pick a problem that can be solved using techniques and resources available today
- ❖ Pick a problem that is central to an important business process
- ❖ Pick a problem that cannot be solved any other way
- ❖ Coordinate all the domains and disciplines required, along with the non-machine learning components



Case Study

Automatic summarization of search results

The problem: a declining interest and skill in business research



- ❖ The average millennial switches social media platforms 27 times an hour (American Chamber of Commerce research)

“I hate the search process.”

“Why do I have to read all those documents on the search result; why can’t the machine just read them for me and tell me what it finds?”

- ❖ For example, imagine you want to learn more about the future of fuel cell powered cars ...

The Insights Report is a point of radical discontinuity in the search process



fuel celled cars

All Results Business Research 317 Automotive Industry News 1,045 Newsletters 0 Uploaded Research 11

1,045 results Last 90 Days Sort By Relevance No Grouping Show Details

Export to HTML Export to CSV Retrieve Bookmark and Share Copy URLs E-mail

Is it time to buy a fuel cell car? - Roadshow
CNET News 08/27/2019 13:00 ★★★★★ 0 views MORE LIKE THIS

Fuel cell cars do have batteries, but they tend to be quite a bit smaller and lighter than those in a Tesla or Leaf because the fuel cell creates direct power on demand, as well as caching ...

Fuel cell cars are still the next big thing video - Roadshow
CNET - Road Show 08/27/2019 13:00 ★★★★★ 0 views MORE LIKE THIS

Hyundai just bet almost \$7 billion on fuel cell cars aiming to produce a half a million consumer fuel cell vehicles per year by 2030.

BMW may finally be ready to sell hydrogen fuel cell cars to the public
Digital Trends 07/05/2019 12:10 ★★★★★ 0 views MORE LIKE THIS

In the United States, fuel cell cars are currently sold only in certain regions of California, because those are the only areas with a dense enough network of fueling stations.

Toyota prepares next Mirai fuel cell car for launch next year
Automotive News 09/25/2019 04:26 ★★★★★ 0 views MORE LIKE THIS

Toyota prepares next-generation Mirai fuel cell car for launch next year.

INSIGHTS

None of that, however, negates the fact that they are the holy grail of electric cars: Long range, fast fill-ups, zero toxic vehicle emissions and, potentially, a clean process to generate their fuel.

As you can see in the cutaway below, they have to use a van because the fuel cell, batteries and hydrogen tanks were enormous and inefficient.

Fuel cell cars do have batteries, but they tend to be quite a bit smaller and lighter than those in a Tesla or Leaf because the fuel cell creates direct power on demand, as well as caching some in on-board batteries.

Its fuel cell was, of course, derived from furious NASA development into the technology during the heart of the space race.

Today, the Toyota Mirai and Honda Clarity carry the mantle for fuel cell cars.

Now fuel cell cars, they sell in tiny, tiny numbers about 2500 of them last year in the US according to sales tracker EV volume, and that's expected to go to maybe 16,000 sold in a year by the end of 2020.

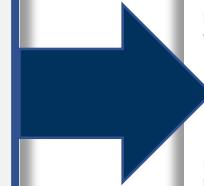
BMW has been experimenting with hydrogen fuel cell cars for years, but unlike Honda, Hyundai, and Toyota, the German automaker hasn't put hydrogen cars into production.

In the United States, fuel cell cars are currently sold only in certain regions of California, because those are the only areas with a dense enough network of fueling stations.

TOKYO -- Toyota is preparing to launch the second generation of its Mirai fuel cell car next year, Chairman Takeshi Uchiyamada said on Wednesday.

Toyota launched the first iteration of the Mirai sedan in late 2014 as the first mass-market hydrogen fuel cell car.

Toyota expects the price of fuel cell cars to match those of hybrids within 10 years, the automaker's European head of sales and marketing, Matt Harrison, told the Automotive News Europe Congress earlier this year in



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[Is it time to buy a fuel cell car? - Roadshow](#)
CNET News, 08/27/2019 13:00

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[BMW may finally be ready to sell hydrogen fuel cell cars to the public](#)
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Automotive News, 09/25/2019 04:26



Case Study

Social media semantic analysis

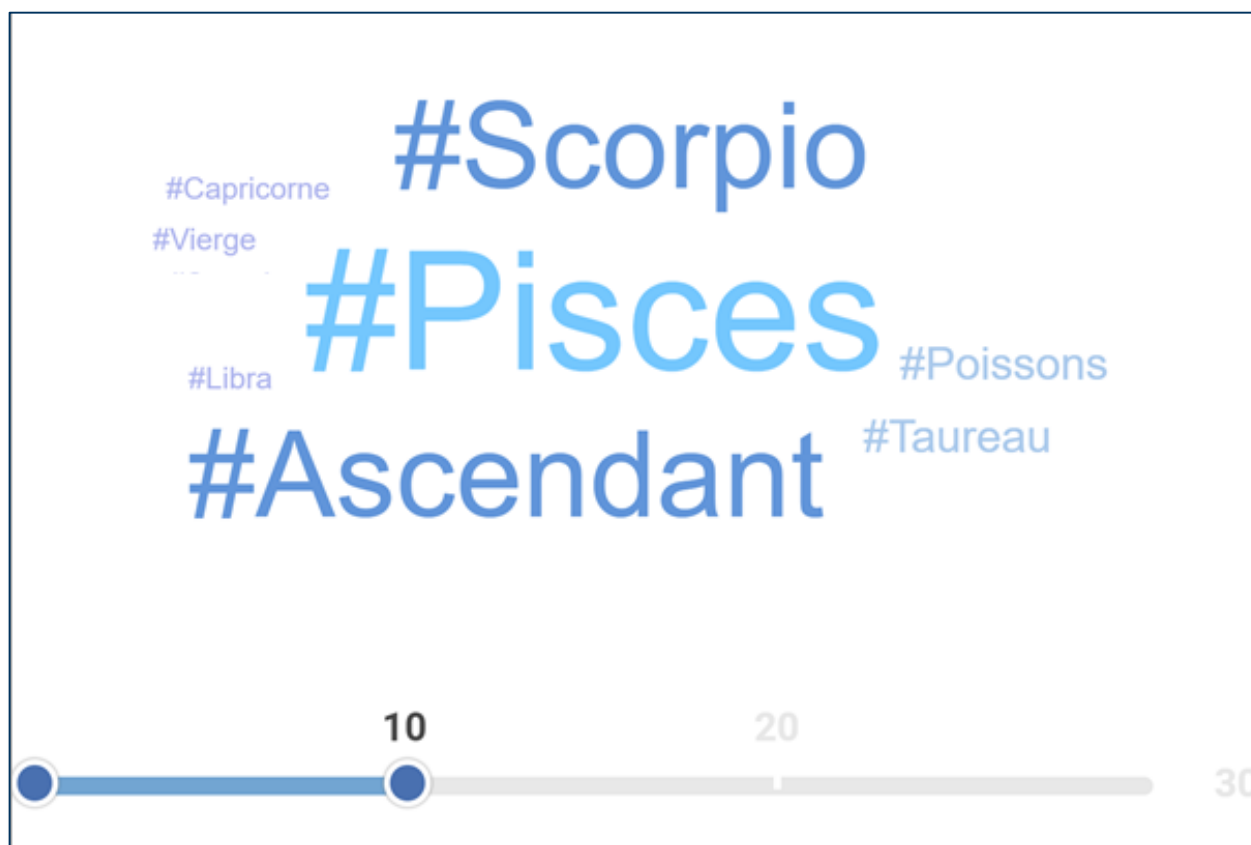
The problem: how to tell if two hashtags or keywords are used by the same consumers in a target market



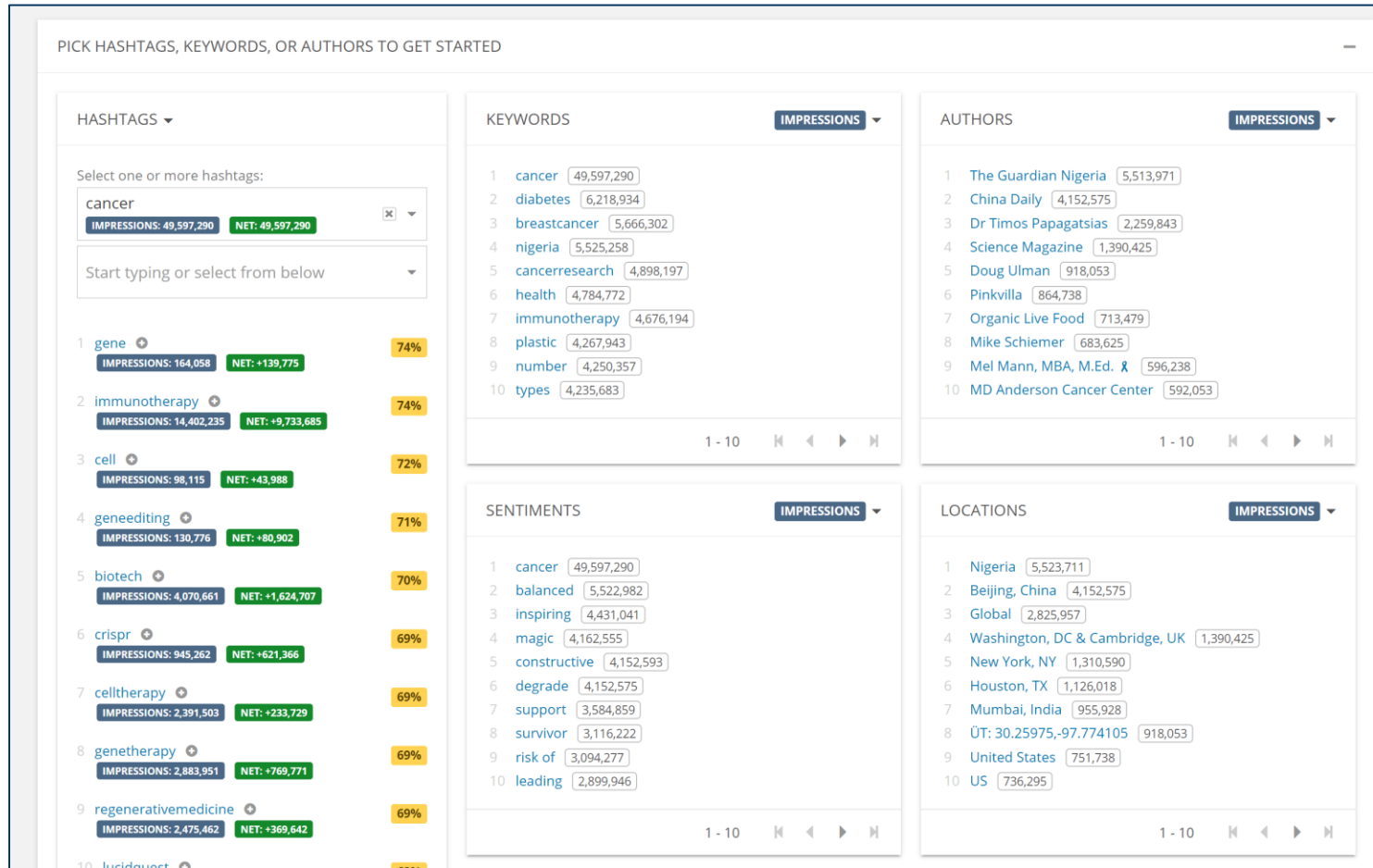
- ❖ What hashtags (and words) co-occur with #cancer (and cancer)?
 - Market research
 - Social media marketing
 - Advertising buys
- ❖ Could do a manual inspection, but how many hashtags are we talking about?
 - 51,000 hashtags co-occur with #cancer
 - More every day
- ❖ Let's see what a popular tool used by many companies for social media analysis tells use about the key hashtags that co-occurred with #cancer ...



This may not too helpful when marketing a cancer drug



Machine learning-based semantic analysis to the rescue



Build a training model of known good tweets about the topic

Use machine learning to semantically analyze the tweets in candidate hashtags to find those whose content is similar

Use the similarity to inform market research and social media marketing activities



Case Study

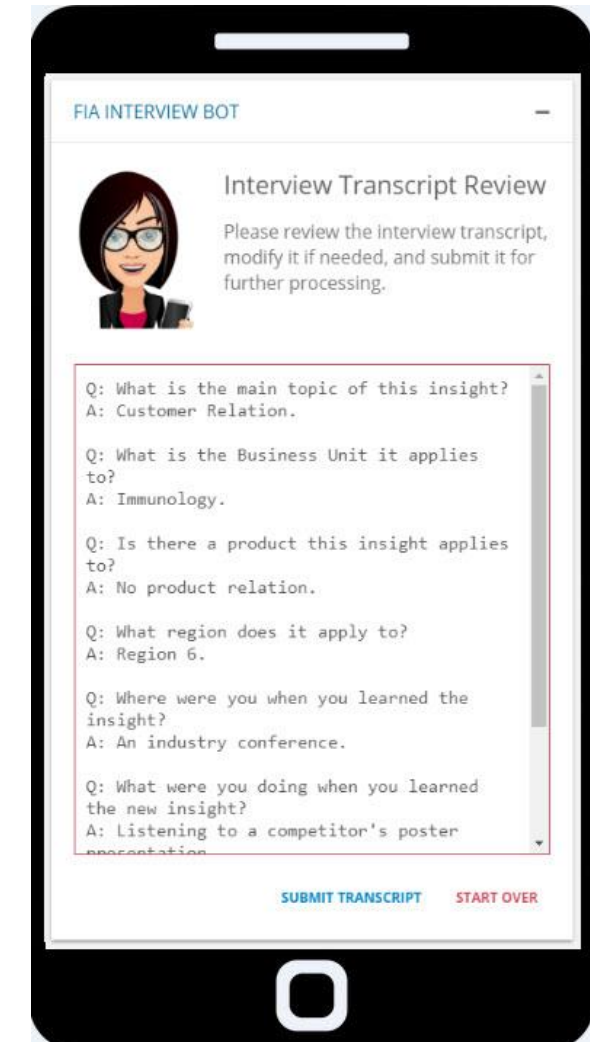
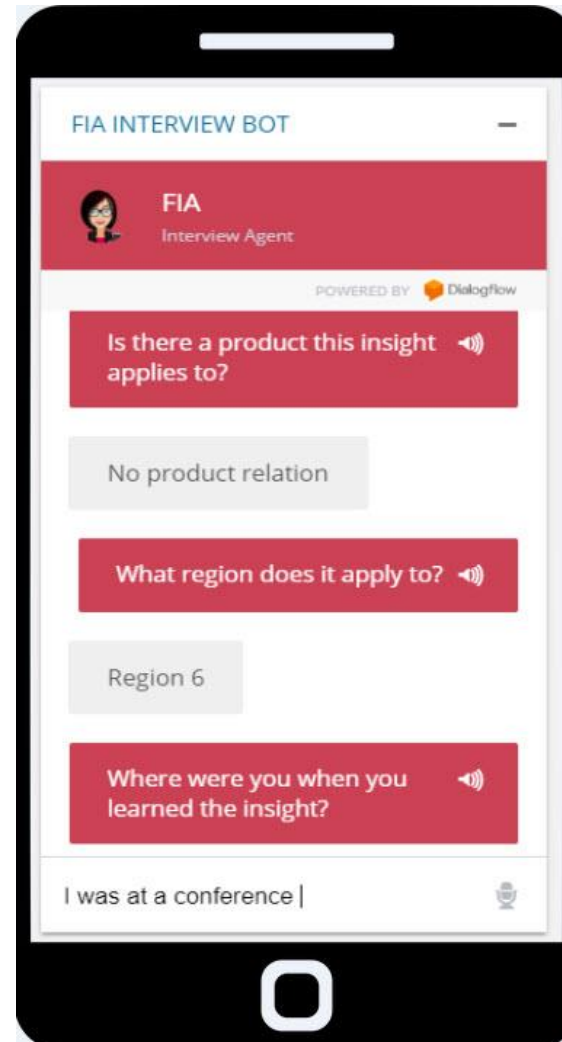
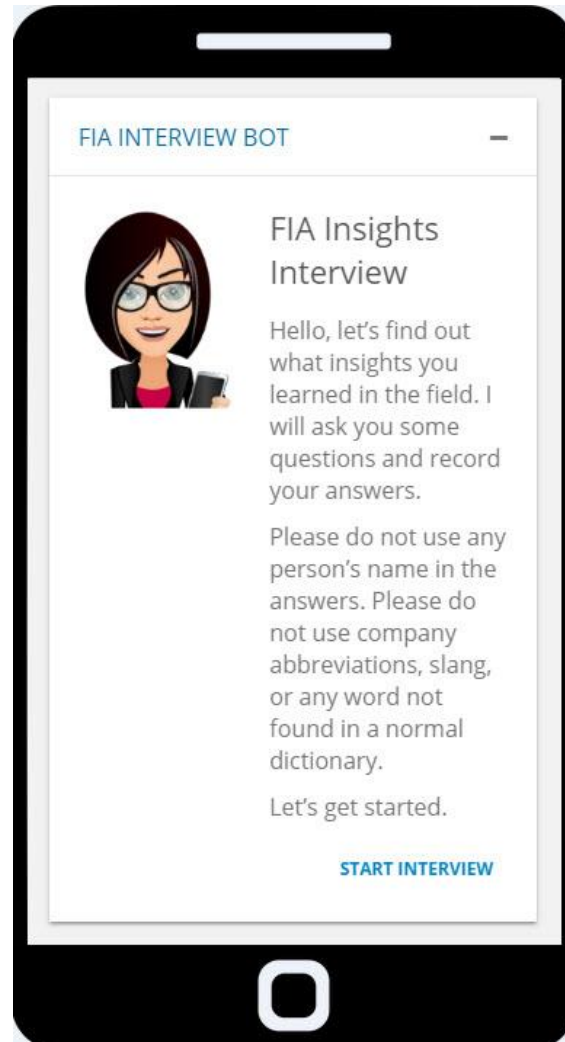
Capturing field intelligence

The problem: capturing crucial field intelligence in the knowledge management process

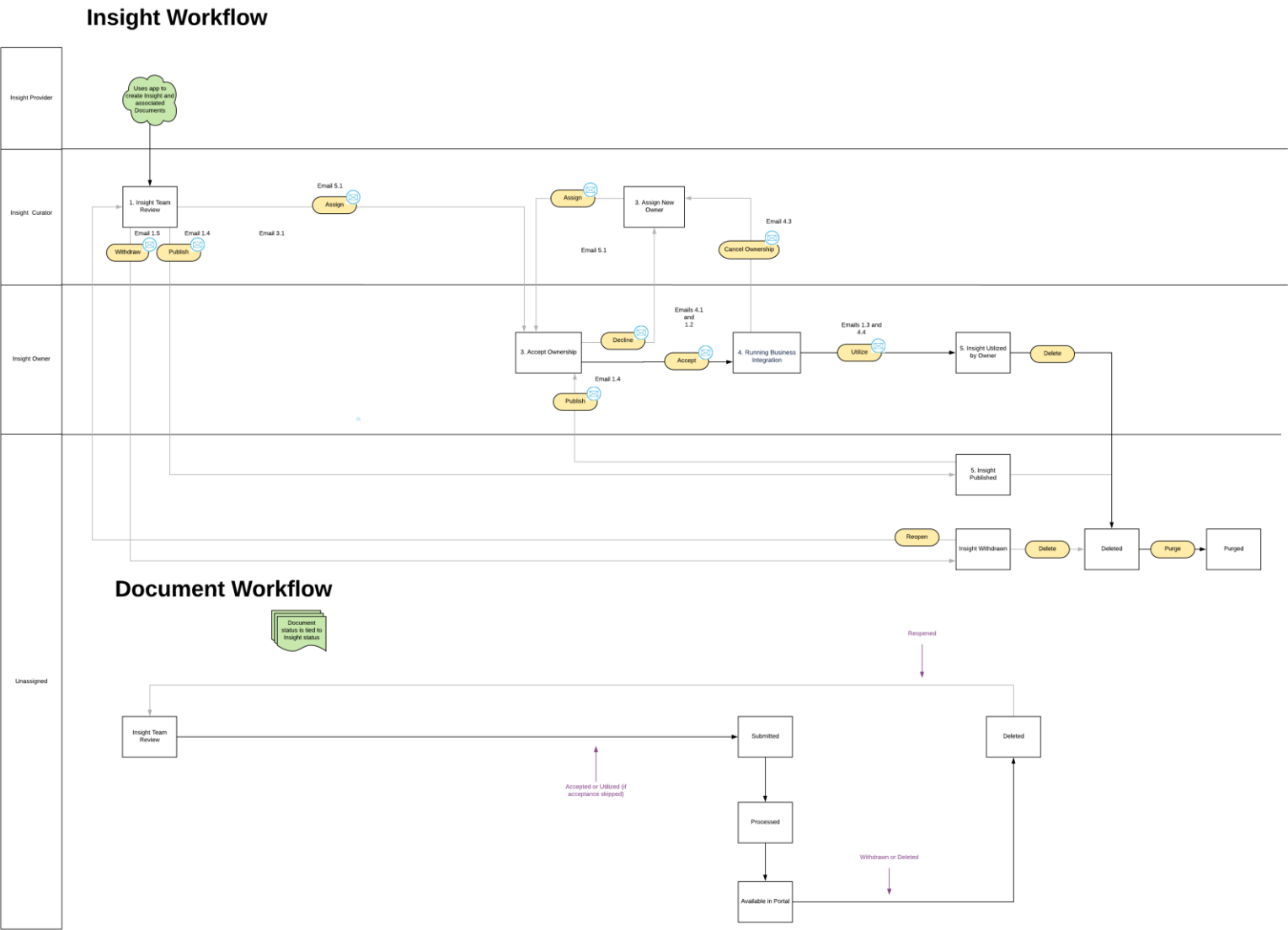


- ❖ Personnel attend industry conferences, go on sales calls, have conversations with industry contacts learning intelligence about competitors, products, and technologies
- ❖ This intelligence is (sporadically) emailed around the company but not curated, searchable, shareable, or actionable
- ❖ Can chatbot technology capture the insights and make them easy to bring into the knowledge management process?

Record thoughts and submit photos while in the field



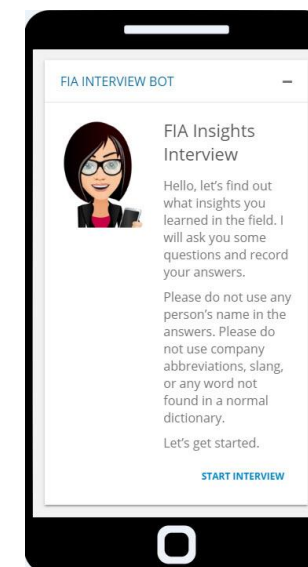
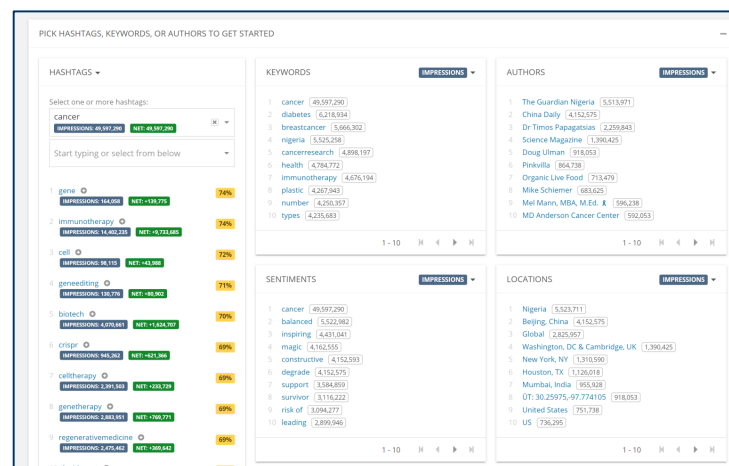
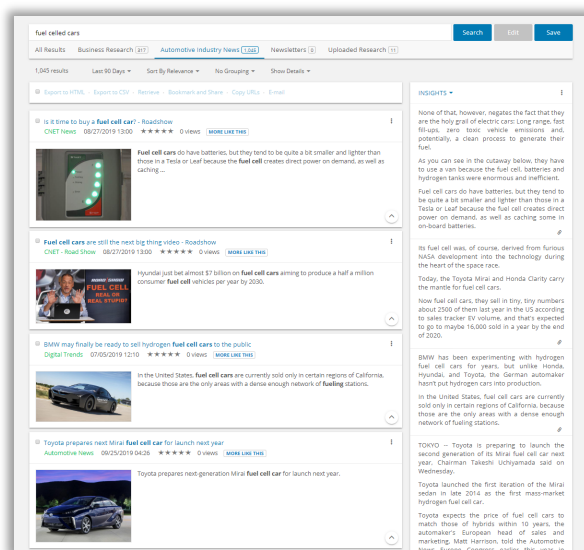
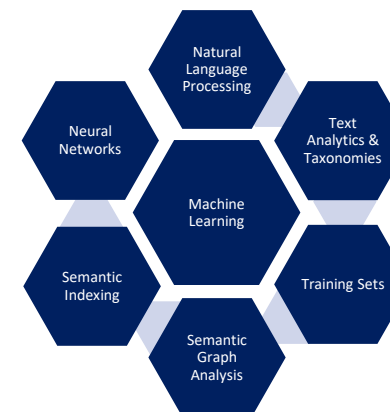
Once captured, the insight can be acted on





In summary

- ❖ A problem solvable with existing technologies
- ❖ A problem important to your business
- ❖ A problem that can't be solved another way
- ❖ Bring together all the disciplines and domains





Everyone in the company is talking about using machine learning and AI in the future, but you are actually doing it. Now you are going to get the credit you deserve.

Senior Vice President to the Director of Competitive Intelligence just after a demo of their portal



Thanks!



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SVP Product Design & Delivery
Northern Light
sheri@northernlight.com

Happy to send these slides to you if you drop me a line.

We'd love a chance to discuss your organization's need for machine learning in the market research, competitive intelligence, product development, or technology research fields.