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Social Media Sentiment Analysis Reveals Authentic Buying Intent

Online conversations are muddied by noise from narrative manipulators, including marketing campaigns and traditional media. koat (**koat.ai**) has found a way to count the voices of real people and online influencers, and separate them from the cacophony. Its AI analyzes over 10 million social media posts a day, while filtering out false and manipulative narratives.

As a result, koat offers a ringside seat to the ebb and flow of real community voices and brings visibility to authentic, trending narratives and sentiment, whether about companies, products, video games, or TV series.

The Challenge

To realize this vision, koat needed high-quality sentiment analysis and entity extraction capabilities that could scale for extremely high throughput and deliver real-time information. Acquiring this natural language processing technology would let koat devote its resources to its core business: developing the data layer that filters out the noise and analyzes what real people are saying.

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>
> — Dallas Toth, koat CTO

koat started with the sentiment analysis extension that came with Elasticsearch, but it only offered document-level analysis — that is, sentiment for a whole tweet, Reddit, or Discord post. While document-level analysis is fundamental for determining whether a trending narrative is positive or negative, koat needed to perform more sophisticated entity-level sentiment analysis to hone in on sentiment surrounding a specific product, company, or person. Then koat could build a planned emotion detector to further qualify whether the sentiment is more specifically joy, anticipation, surprise, anger, trust, or another emotion.

The Solution

koat ultimately chose sentiment analysis and entity extraction by Babel Street Text Analytics for its high-speed performance and scalability, and because it was easy to add new entity types.

In addition to AI models and pattern-matching processors, entity extraction by Text Analytics features ultra-fast matching against entity lists, which koat could easily customize. Adding an entity type like "trading activities" was as easy as listing words such as "buy/bought," "sell/sold," and "contract." Text Analytics also features a special processor designed to accurately extract entities from very short social media messages that don't have much context.

Combined with entity extraction, sentiment analysis from Text Analytics produces entity-centric information that koat uses to listen to social conversations. koat normalizes the posts and looks at the author profile to determine whether it is a manipulator or a real author, all within 10 seconds of each post appearing. From there, an organic post such as "I just put a deposit on my new electric vehicle" feeds into any of several customer use cases, from stock-buying research and brand tracking to research into adoption of electric vehicles. Most significantly, koat-processed data feeds are the foundation of

koat's Pretium product, which is a reliable source of non-fungible token (NFT) market information for buyers.

"Using Text Analytics accelerated our ability to leverage fast, scalable entity extraction. I was able to deploy the solution with actionable results in a day, and within the week I was adding my own custom terms and extractions," Dallas Toth, koat CTO, said. "Currently, koat is only operating in English, but the beauty of using Text Analytics is it has all the other language models, so we can add those languages when we are ready."

The Impact: Focusing Efforts Where They'll Count

Leveraging Text Analytics, koat helped one company that was experiencing negative chatter due to an executive's misogynistic actions. After the company replaced that person, koat's solution detected stories about the new executive trending quite positively (through entity-centric sentiment), despite all other conversations trending negatively. The company could then focus its marketing efforts on this good topic.

Additionally, koat is having a game-changing impact in the cryptocurrency and NFT market through Pretium. Non-fungible tokens are unique digital images that are bought and sold using cryptocurrency, with NFT ownership recorded in blockchains. This market is similar to traditional art, but much more volatile. The value of these digital assets — sometimes in the thousands or millions of dollars — depends entirely on the existence of a community of motivated buyers.

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The burning question for every prospective NFT buyer is: Is there real demand for this NFT?

With Pretium, koat aspires to become the real-time investor's guide to NFTs by first making their data publicly available.
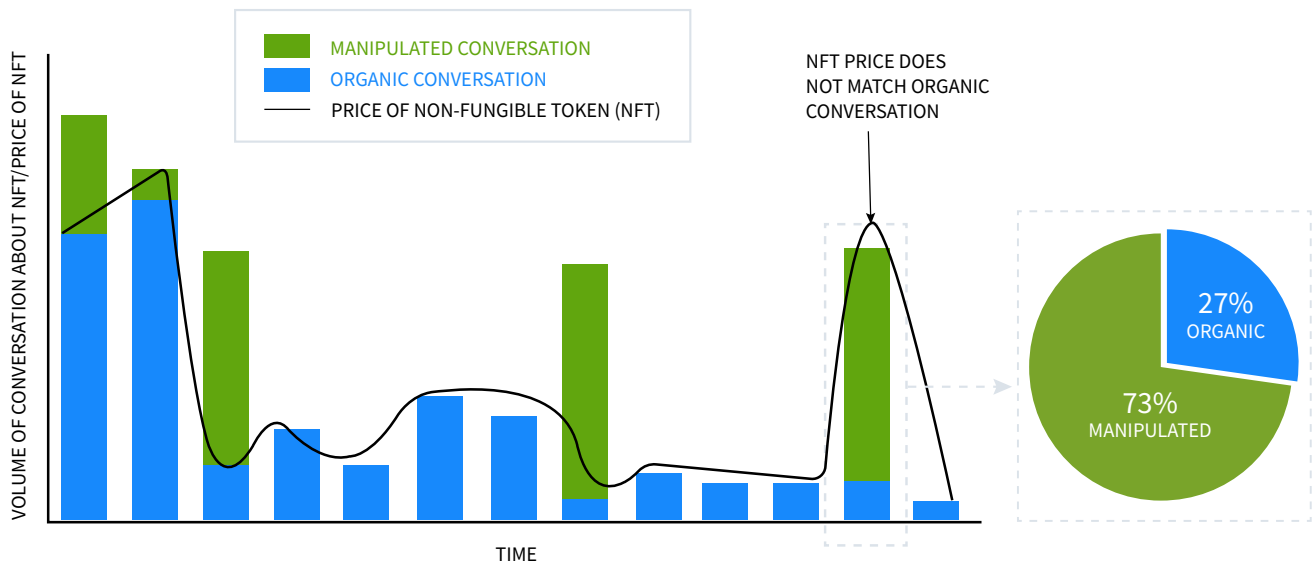
"We help NFT communities understand what the conversations are and who the true influencers are," Toth said. "If lots of people are trying to change the narrative, they know not to trade in that asset."

In one instance, koat revealed that 73% of posts about a specific NFT were from marketing or content manipulators and the then-current price of the NFT was artificially inflated by manipulator conversations. They were not at all supported by community sentiment.

"It's very hard to perform due diligence on social media when you don't know the legitimacy of the data," Toth said. "By the time you're reading about a trending NFT, people are liquidating.

"The koat differentiator is our ability to filter out narratives that are promoted by media or content manipulators. They aren't the [NFT] buyers. We let buyers understand what the real people are saying."

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