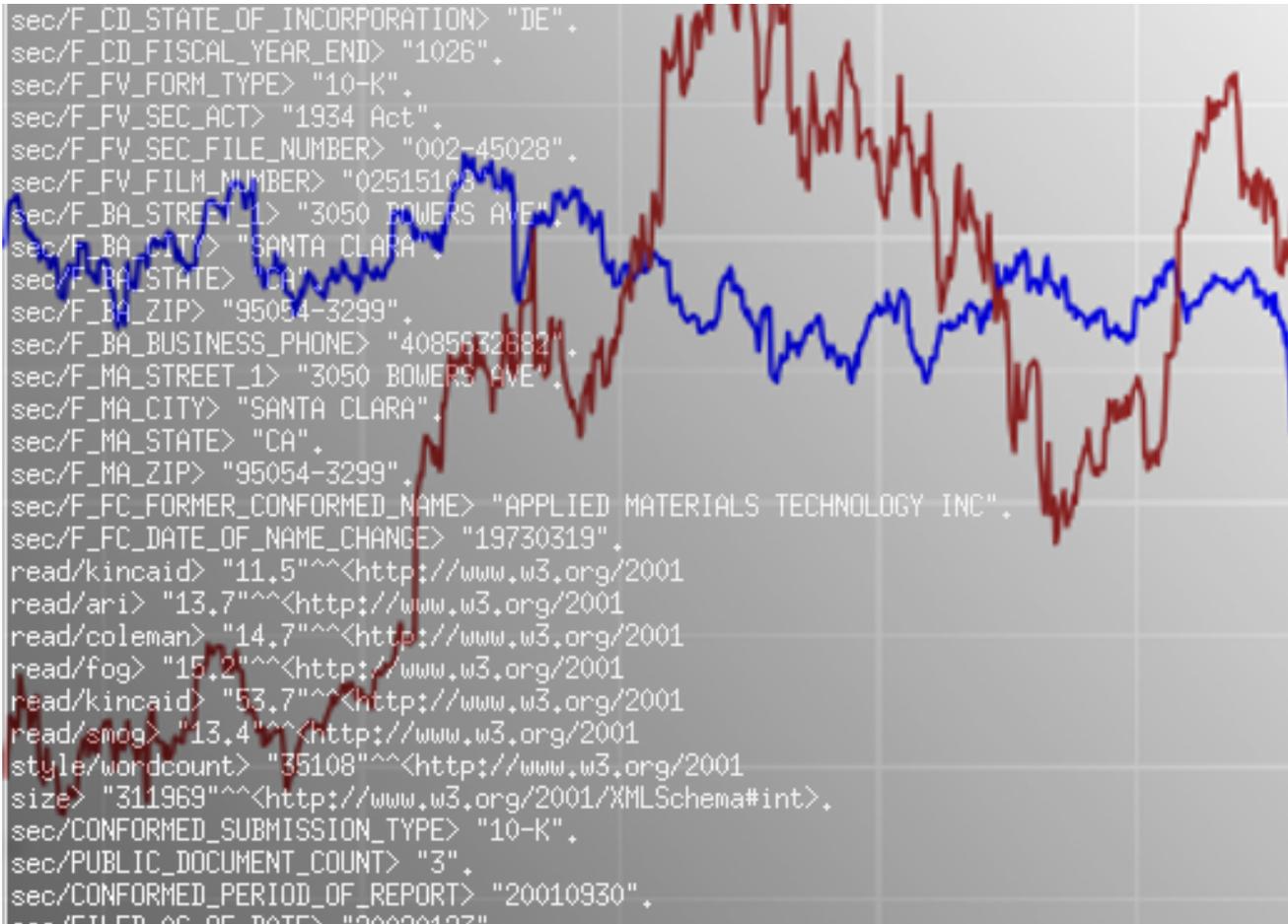


SIGNAL DETECTION IN OPEN SOURCE INFORMATION



Attributes of Language

Spoken and written language can be measured and analyzed, using computers, to reveal things that speakers and authors had never intended to expose. Similar to commonly understood non-verbal cues such as looking up and to the side during deception or body postures like folded arms indicating defensiveness, information is often conveyed on multiple levels. These signals can be interpreted by those who understand how to detect and interpret them.

RRECKTEK's PAF uses machine learning to correlate a company's public information with the company's future value.

RRECKTEK leverages a blend of measurement and representation with a scalable analytics architecture to decipher correlations that were previously sheltered by obscurity.

We produce unique **measurements** as part of our proprietary approach: specialized domain lexicons, taxonomies, markers of deception, inappropriate verb tense, ambiguity, scripted responses, qualification, equivocation, a lack of self-reference, balance in time sequence narratives, readability, utterance length, words per sentence, word length, or file size to name a few. We create many millions of observations to tease out latent characteristics of language use.

Our **representation** modality employs a standards-based model (RDF/RDFS) for metadata representation and storage in open source NOSQL databases. Past experience working with a wide array of digital assets such as news stories, imagery, crime & intelligence reports, credit reports and chat logs means our model is not only time tested but tracks provenance and veracity by design.



The Kelly Criterion is a formula for resource allocation based on probability; It is used when information contains uncertainty.

“We know the past but cannot control it. We control the future but cannot know it.”

-CLAUDE SHANNON

We scale our **analytics architecture** using only network based cloud components. No changes are necessary to add additional algorithms, models or clients because communications are not bound to specific machines. An optimized version of R and a Python solving environment ensure computing resources are quicker and more cost effective than the traditional out-of-the-box open source offerings.

Last but not least, machine learning establishes the saliency behind an attribute’s significance thereby supporting an exhaustive continuous evaluation model. Intuition may initiate an approach but mathematics reinforce the direction as we challenge the very father of information theory himself.

RRECKTEK LLC has been delivering solutions for over two decades, and operating in the Commonwealth of Virginia for 12 years. Ronald P. Reck can be reached at rreck@rrecktek.com.