CORPORATE COUNSEL
corpcounsel.com | April 25, 2023

Moving the Needle on Legal Risk Reduction through Sentiment Analysis

Dan Panitz, Esq.
dan.panitz@trustpoint.one
(212) 226-2928
(415) 999.4440

BY DAN PANITZ

In the world of legal risk management, few things are more important than to answer the question of: "do we have a case or not" at the earliest possible moment in time. Knowing this is like knowing the outcome of the Superbowl, the World Series, the NBA Finals and the Stanley Cup before the end of the games.

Think of all the time, money and resources (and ultimately reputational value) we could quantify, save and/or monetize if we knew which matters had legs and which ones did not, sooner. Being armed with this information then informs us of the prospective impact of each scenario, or put another way, our risk.

If we define legal risk to be the risk of financial or reputational loss, implementing proven methodologies to measurably accelerate our timeline to achieve substantive legal intelligence enables us with invaluable strategic opportunities to settle, prosecute or fight to a calculated win. This result reduces or even eliminates legal risk in some cases. Who wouldn't want this enhanced ability?

Enter Sentiment Analysis

Sentiment analysis is a process of analyzing text data to determine the writer's attitude, opinion, or emotion towards a particular subject. The origin of sentiment analysis can be traced to the 1950s, when it was primarily used on written paper documents. Following the advent of augmented intelligence and deep learning, significant advancements have been made upon this process and its application very recently.

Sentiment analysis has been increasingly used in the legal profession to analyze case narratives. Through this usage, our ability to learn case narratives far earlier in time has been greatly accelerated to answer the all-important question of: "do we have a case or not".

In investigations and litigation, sentiment analysis can be used to analyze the sentiments of the parties involved, including related parties to communications potentially relevant to substantive evidence or legal elements central to the case.

By analyzing these sentiments, we can now gain earlier insights into a matter, such as the who, where, what, why and when of a case, giving us strong indications of the potential outcome, the strength of the evidence, and the credibility of the parties involved.

While machine learning allows computers to learn new tasks without being expressly programmed to perform them, sentiment analysis models can be trained to read beyond mere definitions, to understand things like, context, sarcasm, and misapplied words. Sentiment analysis is highly differentiated than other data analysis tools because it's based on multiple scoring algorithms (both linguistic and Ai). This enables critical flexibility on weighting factors which static algorithms simply can't reach in terms of case narrative development.

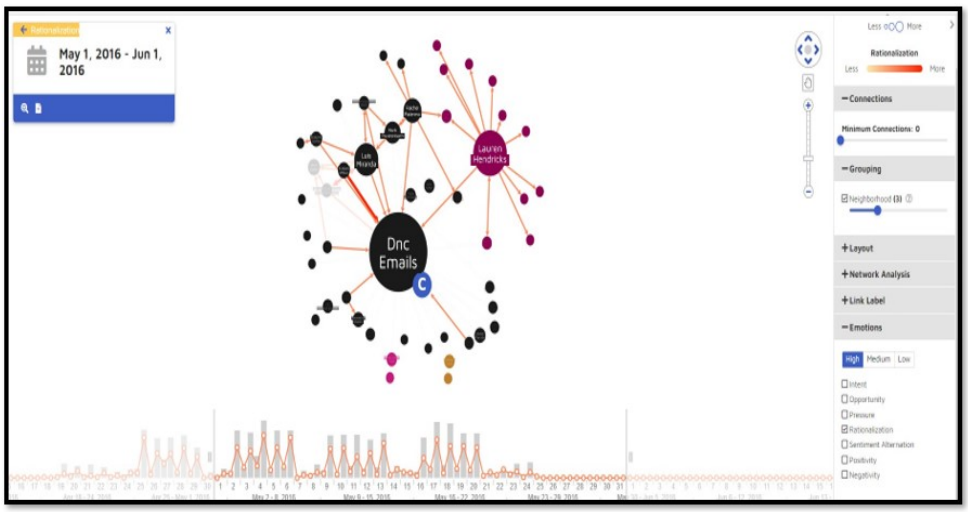
This "Deep Learning" uses a complex structure of algorithms modeled on the human brain and enables the processing of unstructured data such as documents, images, and text.

What Does Sentiment Analysis Look Like in Action?

Using a communicational pattern visualization over a given period of time, such as a month, we can identify persons of interest, isolate the most interesting and potentially relevant documents, look for breaks in routine and train the model to recognize specific items. Think of this like shining the brightest light on the smallest and most important areas.

The key is to explore several target sentiments, by themselves or in combination, depending on the facts we are trying to ascertain. In a fraud case, for example, the sentiment combination of intent, opportunity and rationalization are known as the fraud sentiment triangle, and likely to yield the most harvest, should there be any fruit to find probative to fraud.

While there are numerous sentiment analysis models for different issues, such as sexual harassment or coercion of any other nature, it's critical for us to have the ability to build custom models bespoke to specific aspects of a case and its corresponding data. Simply cutting and pasting a canned "one-size-fits-all" sentiment analysis model vastly oversimplifies the complexities of a particular matter, despite any surface level similarities to something we've seen before. Simply put, don't just flip a switch and hope for the best.



Tailoring The Tools

To reach a desirable level of precision and recall (defined below), the ability to vary the weighting (scoring importance) of any given individual classifier is critical.

In brief, precision refers to the number of true positives divided by the total number of positive predictions (the number of true positives plus the number of false positives). Recall, or the true positive rate (TPR), refers the percentage of data samples that a machine learning model correctly identifies as belonging to a class of interest—the "positive class"—out of the total samples for that class.

By allowing for both "auto-tune" and adjustment of the weighting allotted to each classifier within sentiment analysis, custom classifier weighting (CCW) enables far greater data intelligence acceleration, data slicing and visualization for all types of data.

Now instead of a black box algorithm, CCW enables us to change the importance of key factors which highlight and uncover critical facts sooner and with far more precision. This "tunes out" the noise and surgically teases out what we are looking for within our data (or what we can defensibly conclude does not exist in the same).

Process, then SMEs, then Right-Sized Technology Accelerators

One of the key benefits of sentiment analysis is that it can be used to analyze large volumes of data quickly and accurately. In investigations and litigation, there is often a tremendous amount of data to review, including email, communications in multiple forms (text, chat, etc.) witness statements, expert opinions, and other evidence.

If we are working on a toxic tort matter, as an example, use of CCW sentiment analysis to analyze witness statements, communications and medical reports enables quick identification of any inconsistencies or discrepancies in the data. This can be critical to identify potential weaknesses in the case and make any necessary adjustments.

In terms of how to get there, we must always begin with process. As the basis for any successful undertaking, our project plan should design, implement and refine the best process(es) for the issues we are trying to solve.

Next, comes our subject matter experts (SMEs), who know what we're looking for (client stakeholders and counsel) combined with expert providers who know how to successfully run a customized sentiment analysis project. Finally, we select the sentiment analysis technology accelerators best suited to the case and data needs which we customize, tune and refine. If we begin with bad process, we simply amplify that through technology.

Expertise in Sentiment Analysis Matters

By selecting only expert providers, skilled in sentiment analysis customization for multiple workflows and evolving data, we are best positioned to thoroughly analyze our data, identify key points that may be relevant to the case and focus in on what matters. Comparatively, our augmented intelligence team expert in bespoke sentiment analysis will enable us to achieve our case narrative far more rapidly than any linear review or off-the-shelf technology tool can provide.

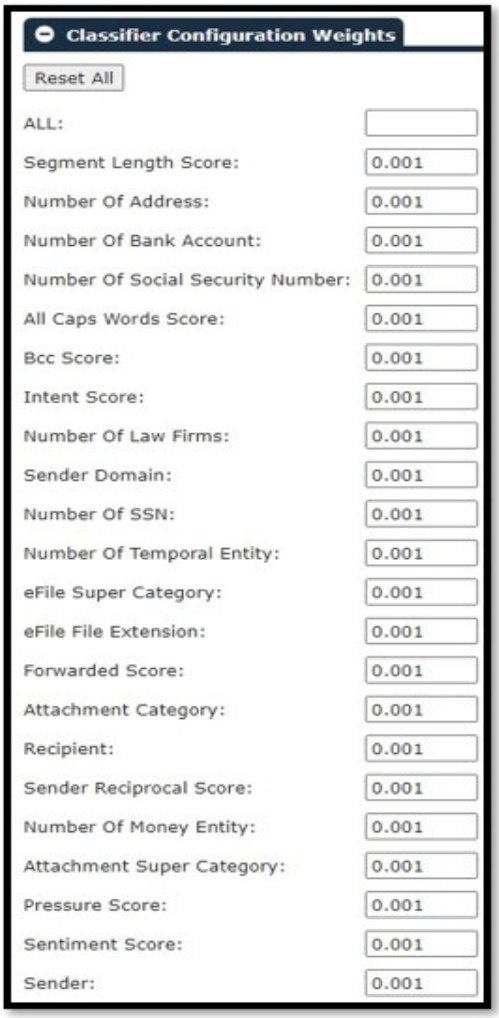
Another differentiator of partnering with experienced sentiment analysis providers is that we can more comprehensively identify key patterns and trends in the data which further build our case narrative and leads us to our logical next steps of focus. This can be particularly useful in complex legal cases where there are multiple parties involved and a lot of evidence to review.

Next Steps

Augmented intelligence teams (like the one I have been so fortunate to be a part of at Trustpoint), have enabled legal case teams to reach case narratives far earlier in time.

When we know the answer to the critical question of: "do we have a case or not" on a greatly accelerated timeline, we gain the invaluable strategic advantage of reduced risk, exponential cost avoidance and the very real potential to resolve critical matters more quickly.

In terms of moving the needle, the developments in sentiment analysis have had a significant impact on the legal profession. By using this technology, we are now able to analyze large volumes of data quickly and accurately, identify patterns and trends in the data, and analyze case narratives far earlier in time. This has led to more informed decisions, faster case resolutions, and ultimately, better outcomes for clients. As sentiment analysis continues to evolve, it is likely that it will become an even more valuable tool for us to reduce legal risk and lessen our downstream burden.



Dan Panitz, SVP, Regulatory & Litigation for Trustpoint.One, is an experienced attorney based in New York with more than 25 years of combined legal, technology and corporate advisory experience. Having worked with SEC Enforcement and NASD (now FINRA) Arbitration, Panitz also holds Anti-Bribery & Corruption specialty certifications for the PRC, UK and the United States and has led complex regulatory, litigation and spend analytics support programs for major pharmaceutical and financial services providers globally. Dan can be reached at: dan.panitz@trustpoint.one or (212) 226-2928