



How to incorporate real-time data analytics in economic volatile times



How Natural Language Processing provides business changing insights for both Risk and Front Office departments in the Financial Industry

Owlin

Introduction

In March 2020, we published [this white](#) paper touching upon the importance of data analytics during times of high market volatility. Since then, the global pandemic resulted in an economic crisis, followed by the quickest market rebound in our history. Over the last months, developments have gone fast and the world is currently facing a second 'wave' of infections, which triggers new restrictions and economic consequences. To reflect on the effects of the COVID-19 pandemic in the March issue, two industry focused cases on bankruptcy of hard-hit, listed businesses were presented. These volatile times are forcing professionals to be on top of the potential emerging risks even more in order to tackle them efficiently.

This paper reflects on the events that happened in 2020, and how Natural Language Processing (NLP) and Machine Learning helps being on top of an emerging risk for one party, while creating investment opportunities for others.

In short, it shows;

- how the application of NLP helps with both risk mitigation and origination of business opportunities and how these can go hand in hand;
- how our risk-based scoring models flag emerging risk and are able to identify specific events relevant to risk, portfolio and asset managers;
- how the exploration of diverse and global news and data sources provide early insights, which are often not directly covered by mainstream media;
- how current times make the adoption of new technology mandatory to stay ahead of the market or prevent from going down with it.

Companies that excel in navigating through high market volatility are able to respond quickly to new available information. Having swift access to the right information and the competence and tooling to work with the data is key in every sector, whether that is how we adapt our healthcare systems, restructure business operations or supply chain. Next to this, it allows for choosing alternative approaches to how we manage risk and create alpha going forward - which, in these unprecedented times, has become more important than ever.

What we saw

Throughout March 2020, the global markets have set some new records. These range from circuit breakers being triggered on the stock exchanges multiple times in a single week, drops- and upward movements unseen since the 1930's and the biggest stimulus deal in American history aiming to bring down the volatility. This all happened in the time-span of days, as exponential changes and emergency measures came in action.

In the first months the COVID-19 pandemic, industries like retail, transportation and travel faced immediate and heavy impact. The decrease in demand for goods and services was so extreme, governments turned to stimulus packages to prevent massive economic turmoil and lay-offs. These effects were quickly starting to hit the real economy, resulting in massive layoffs and impending bankruptcies across the globe -- with a major concentration in sectors such as Tourism that were hit particularly hard by the pandemic.

Markets across the globe had a challenging time adapting to these new dynamics efficiently. A common goal here was to make sure to be equipped with the right information, and more importantly, the right tooling to navigate through this situation. While risk managers aimed at reducing risk, and minimizing overall damage, some investors enjoyed "shopping sprees" in both public and private markets, looking for opportunity signals on every step they took. The question is, what tooling and data points could have been used in coming to the right conclusions, and did these provide timely and accurate insights?

Leveraging Advanced Analytics

The world is changing at a rapid speed, and financial institutions therefore need to adapt to stay in the game. Financial institutions are looking at new ways to stay in control, anticipate external events, and get a forward-looking view on their market. The limited availability of up to date (un)structured data makes this even harder, but there are a few common denominators amongst players in the market that have enabled them to leverage the current situation. The use of data analytics, alternative data and the application of AI and NLP have taken a flight, setting a new level playing field in the financial industry.

Low interest rate environment and increasing amount of bankruptcy filings fueled by the crisis made for an important factor for buyout funds. Using alternative methods to spot which firms might be soon in need of distressed financing played a central role. Artificial Intelligence offers the possibility to get a 360° view on the markets. It provides an extra angle on which companies in the heavily interconnected global economy might be ahead of their peers, while others struggle to survive. Here, technology sets the good from the bad, and 'flags' what needs attention. An interesting example is the [Covid Impact Monitor](#) that OwlIn published in the early days of the pandemic, where the ripple effects of the pandemic became visible: The NLP models indicated a huge increase of stories around both layoffs and bankruptcies across

various industry sectors. These insights were well ahead of the official reports provided by census bureaus, banks and governments.

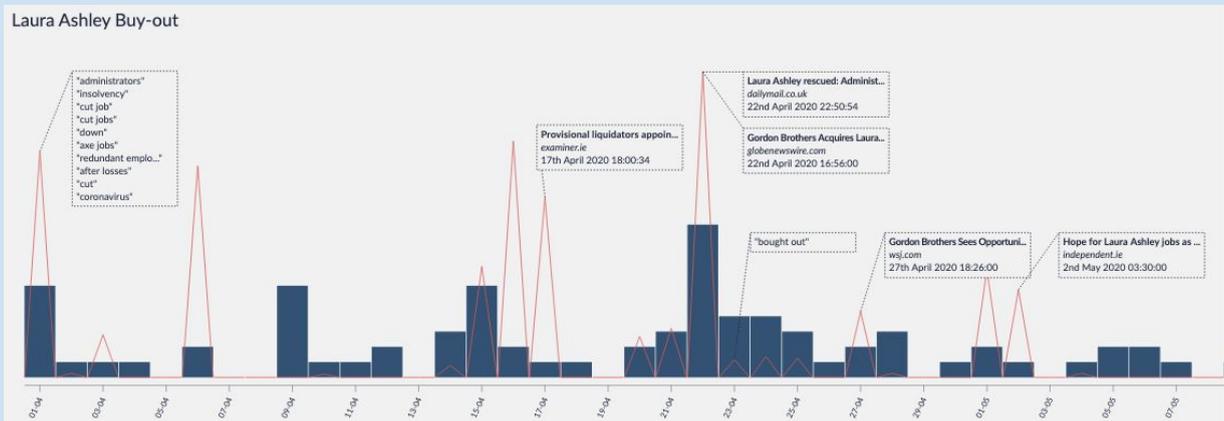
When talking about Machine Learning and Analytics in Asset Management or its Private Equity arms, it is important to bring out the essence it should play. Machine learning generally enables algorithms to analyze vast data sets and make predictions against a specified set of goals. The algorithms spot anomalies and point its users where to look as they become more refined through large inflows of data. It is the speed and bringing insights through an alternative lens. It makes it particularly adaptable for Private Equity investors, who often lack quantitative data for their target companies. This is another subfield, which has been experiencing tremendous popularity and growth over the past years. It poses an alternative way of analyzing data through Natural Language Processing (NLP), a field within AI which focuses on the interpretation and classification of large amounts of unstructured text. NLP is increasingly being applied within the asset management value chain to analyze a wide variety of data in the internal and external environments to identify and respond to new risks, emerging threats, and investment opportunities.

A [2018 article by McKinsey & Co.](#) highlights the considerable traction of Advanced Analytics and AI-powered tools in Private Equity. “PE firms are beginning to build data reservoirs of client characteristics, and they use AA to design more personalized distribution and service models centered on an understanding of their clients’ needs. Another area with much promise is the generation of insights for client reporting through the application of artificial-intelligence techniques such as natural-language processing.”

So how is the current world adapting to the latest developments? A [recent study published by Fitch Solutions](#) in partnership with Risk.net, surveyed credit risk professionals across the globe, and how the daily way of working has changed since the outbreak of COVID-19. The study also emphasizes these professionals are leveraging data analytics and alternative datasets to control their portfolios and improve performance. For instance, 82% of credit analysts surveyed have turned to more and different data points, and how they’re adapting models to fit current times.

Being able to retrieve relevant timely information, with thousands of articles and other text formats across a target portfolio of 500+ companies is challenging. Even more so, when the distribution of these publications stretches across the globe and a variety of languages, with limited coverage in traditional global media outlets. This underlines the need for advanced analytics in day to day operations for financial institutions.

Private Equity arms of Asset Management companies, which specialize in e.g. emerging markets know this problem far too well. Large lists of potential target companies with promising technology and great scalability prospects, but limited data to come by. That is the basic problem summarised in one sentence for investors, who want to gain competitive advantage in a foreign market without having extensive operations in the geographical area.



Less than four weeks after the company announced that it is going into administration, a Boston-based investment firm Gordon Brothers secured a takeover bid on the company and took ownership.

This is a perfect example where a risk-focused technology creates multiple angles; a signal for emerging risk and a flag for investment opportunity. Having early access to such signals gives investment firms focused on e.g. distressed financing the very needed headstart to prepare buy-out models. It provides the ability to design takeover strategies and arrange what is necessary, to be first in line when acquiring distressed businesses.

Concluding,

- Being directed to where you need to look pays off; valuable insights are not always the ones that are pushed on homepages of mainstream media, monitored by the entire world.
- To get to the right information, the use of smart tooling is mandatory as manual work is too labor intensive. The risk of missing out is simply too big.
- By applying NLP technology, the relevant is separated from the irrelevant, based on the field of focus of PE arms and asset managers and puts the spotlight on what needs to be looked at immediately.
- There is a finer line between risk and opportunity than often perceived; tracking events from a risk perspective might lead you to an opportunity and vice versa.

Coming back to the article from [McKinsey & Co.](#) mentioned in the previous section, we see that intelligent process automation, such as monitoring of potential takeover targets “...frees valued employees from burdensome work so they can focus on value-adding activities”.

In the endm, this leads to the most valuable combination. NLP and Machine Learning allows for efficient work, completeness of insights and enables you to process valuable information quickly, regardless of source, location or language.

Find out more by requesting a [demo](#) or contact us directly at info@owlin.com.

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