



## Why the use of real-time news analytics increases during turbulent economic times and sets the standard for the future

Two detailed examples how NLP increases your performance and helps you navigate through the Corona Crisis

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**Owlin**

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# Introduction

Mankind is currently facing a global pandemic crisis. What first began as a few thousand cases turned into something that has a direct impact on our daily lives, economy, politics, and the way we shape future measures. In our highly complex, intertwined global economy, an external shock event such as COVID-19 poses an unprecedented effect on markets and businesses. Hence, we need to be on top of the potential emerging risks even more in order to tackle them.

Companies that excel in navigating through these circumstances 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 system, restructure business operations and supply chain, or take alternative approaches to how we manage investments and create alpha going forward.

This article highlights a number of events that happened over the past weeks, and how Natural Language Processing (NLP) and Machine Learning helps being on top of an emerging risk; and secondly, how real-time monitoring of events across the globe and a majority of global languages can be of essence when timely information is crucial, enabling the financial industry to prepare for what is coming.

## The Status Quo

Industries like retail, transportation and travel are facing heavy impact from the measures taken in order to mitigate the spread of COVID-19. Governments around the world are designing stimulus packages that could help prevent a massive economic turmoil, but unfortunately, for some companies, these measures might come too late.

There is also an increasing number of initiatives where governments join forces with some of their domestic enterprises to figure out alternative solutions and ways to boost production of essential items to help reduce the exponentially growing spread of the coronavirus.

Throughout March 2020, the global markets have set some new records, ranging from circuit breakers being triggered on the stock exchanges multiple times in a single week, drops- and upward movements unseen since the 1930's, or the proposition of 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.

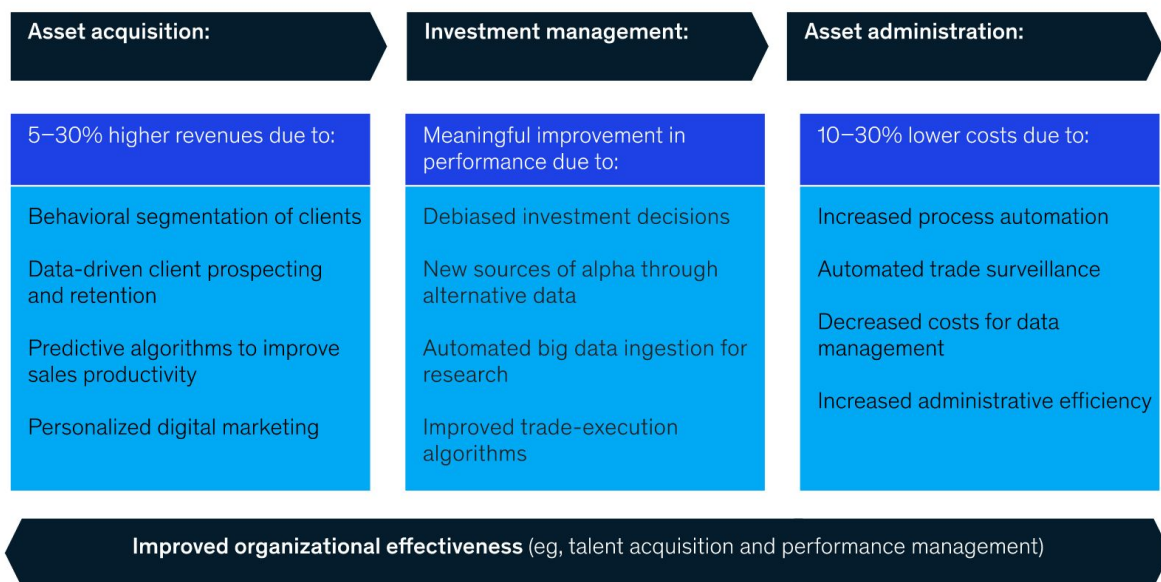
Asset managers and investors need to adapt to these new dynamics, and make sure they are equipped with the right information, and more importantly, the right tooling to navigate through this situation, reduce risk, decrease costs and create potential upside.

# Leveraging AI in Asset Management

Due to low interest rates and the overall accessibility and attractiveness of e.g. loans, leveraging NLP is becoming an increasingly important mission to efficiently increase ROI. Using this opportunity, while mitigating risk, however, requires the right tooling. Artificial Intelligence offers the possibility to get a 360° view on the markets, even more so when seeing how prone the heavily interconnected global economy is to a crisis posed by events such as the rapid spread of COVID-19.

When talking about AI in Asset Management, 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 self-adjust and improve their accuracy through a trial and error process as more data flows in. It is the speed and efficiency in bringing insights, which makes AI particularly adaptable in securities investing. Another subfield, which has been experiencing tremendous popularity and growth over the past year and poses an alternative way of analyzing data to the field of asset management is Natural Language Processing (NLP), which focuses mainly on rule-based models that process, analyze and classify large amounts of natural language data. 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.

## Asset-management firms are applying advanced-analytics techniques across the full value chain.



Asset management arms which specialize in e.g. emerging markets credit know this problem far too well. Attractive but risky high-yield bonds in exotic companies, which have little-to-no coverage pose increasing risk on the investor due to intransparent and insufficient coverage, which could be improved with the use of Natural Language Processing models that analyze the text and translate it back to English or other major languages.

In order to showcase what NLP looks like in practice and how Early Warning Signals can help asset managers find red flags across large portfolios through quantitative distance-based risk taxonomies and predictive analytics, there are two recent cases worth highlighting:

Both graphics below depict daily news flows in blue and respective NLP-powered risk scoring in red.

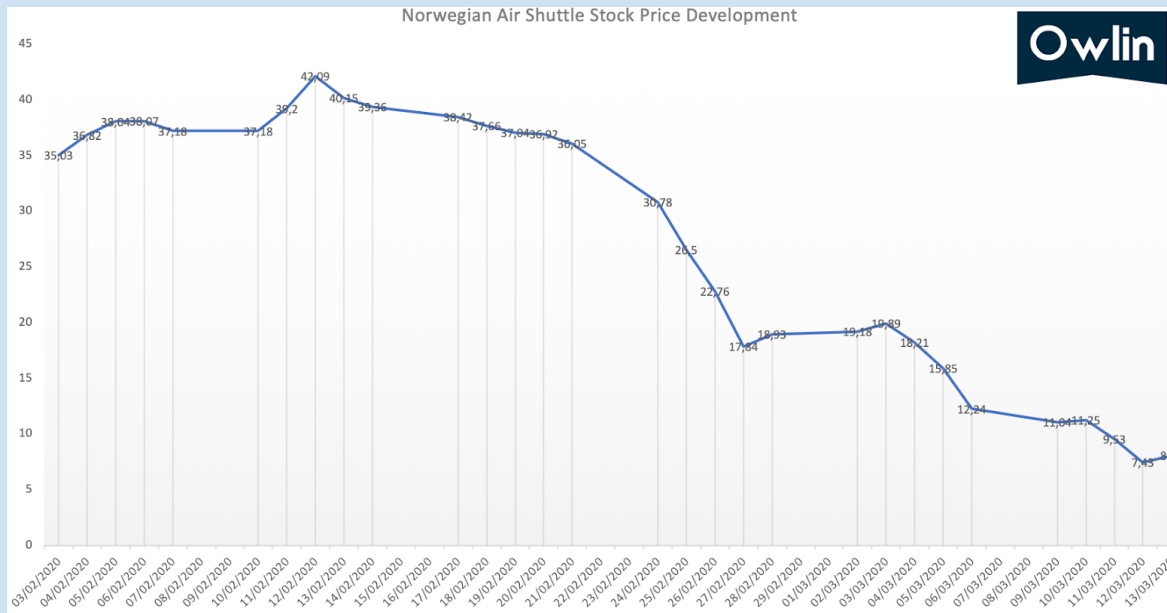
### Norwegian Air - Early Warning Signal Analysis

Low cost airline Norwegian Air became the largest non-US airline operating on transatlantic routes based on passenger numbers in 2018. After reporting losses and deepening cutbacks in mid-February, the company found itself in a cumbersome situation. In March COVID-19 caused travel to slow down and the shares plunged in value. Early March the US president Donald Trump issued a 30-day travel ban

from Europe. Since that, the shares declined further and the company laid off 90% of its staff. Recently Norwegian air received a government rescue package and we're still tracking developments.

### Where would a proper integration of NLP change the investment process?

The answer is: at the very beginning. The share price of Norwegian Air Shuttle SA did not respond to concerns over higher losses and cost headwinds. These signals were detected and classified by Owlin's algorithms and flagged on February 13th. Portfolio (risk) managers who had concerns over further developments of this situation had enough room (more than a week) to act on this information. This avoided losses on this position by some -55,5% when compared to the share price on the 27th February 2020, and by nearly -80% if the position would be closed on February 13th 2020 compared to the share value on March 13th 2020.



### Payment Facilitators and Early Warning Signals

Payment Facilitators play an important role when it comes to processing payments. They take direct merchant risk. Should a merchant default and become unable to pay its customers back, a Payment Facilitator guarantees all chargebacks. In the case of Norwegian Air this risk would equal all the tickets sold for flights that are yet to come.

Integrating NLP on news in their risk- and merchant monitoring helps the Payment Facilitator being alerted in time when their merchants are downsizing or face a (potential) bankruptcy. This keeps charge-back risk under control.

The figure consists of two main parts. The top part is a bar chart representing sentiment analysis over time from January 3, 2020, to March 17, 2020. The y-axis represents sentiment scores, ranging from -0.05 to 0.05. The chart shows a significant peak in sentiment around February 10-12, 2020, followed by a sharp decline. Numerous callouts provide context for these sentiment shifts, including events like 'Laura Ashley CEO to step down', 'Laura Ashley confirms need for... rescue', and 'Laura Ashley enters administration'. The bottom part is a line chart titled 'Laura Ashley Stock Price Development' showing the stock price from January 3, 2020, to March 17, 2020. The y-axis represents the stock price in GBP, ranging from 0.00 to 3.50. The chart shows a significant drop in mid-February followed by a recovery and then a decline.

Date	Stock Price (GBP)
03/01/2020	3.22
04/01/2020	3.22
05/01/2020	3.16
06/01/2020	3.17
07/01/2020	3.21
08/01/2020	3.22
09/01/2020	3.22
10/01/2020	3.22
11/01/2020	3.22
12/01/2020	3.21
13/01/2020	3.21
14/01/2020	3.21
15/01/2020	3.25
16/01/2020	2.03
17/01/2020	1.65
18/01/2020	1.90
19/01/2020	2.00
20/01/2020	1.94
21/01/2020	1.78
22/01/2020	1.83
23/01/2020	1.72
24/01/2020	1.75
25/01/2020	1.75
26/01/2020	1.63
27/01/2020	1.68
28/01/2020	1.75
29/01/2020	1.65
30/01/2020	1.50
31/01/2020	1.30
01/02/2020	1.45
02/02/2020	1.45
03/02/2020	1.25
04/02/2020	1.30
05/02/2020	0.98
06/02/2020	0.91

These cases have been created using the technology and Natural Language Processing algorithms of Owlin.

With turbulent economic times such as we are experiencing now in 2020, situational awareness is a pure necessity. Companies that will navigate well through these times know how to leverage the right tooling and have the right procedures in place.

Find out more by requesting a demo at <https://connect.owlin.com/demo-request> or contact us directly at [info@owlin.com](mailto:info@owlin.com).

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