

# TempletonAI and Strend

## Mutually Interactive Quantitative Financial Data Networks

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### Abstract

The available bodies of quantitative and qualitative data grow with each passing day. Their growth rates significantly exceed the ability of any network to synthesise the entirety of their contents in an actionable way, introducing significant difficulties when making investment decisions. Additionally, the number of market participants continues to swell, introducing significantly more variables with which existing and emerging analytical methodologies must contend. Investors must currently rely on subjective analysis of incomplete data regarding social sentiment when making investment decisions.

The global market continues to migrate towards digital applications. While this process entails significant speed increases, it does not necessarily entail an increase in efficiency. Information bottlenecks disallow the thoughtful utilisation of the data produced by these digital systems. Machine learning and artificial intelligence present some of the greatest opportunities regarding market analysis and projection.

Strend and TempletonAI serve as a complementary pair of software tools that assist users in making sense of the growing retail market noise. The software delivers quantitative data derived from qualitative social information by introducing two proprietary networks that interpolate data between each other. Leveraging machine learning and artificial intelligence, both Strend and TempletonAI thoughtfully interact with the growing bodies of available market data. This refined data allows users to make investment decisions based on hard data rather than subjective interpretation, greatly aiding their ability to analyse past investment decisions and improve accordingly.

As technology continues to progress, the demand for actionable market insights derived from qualitative data will continue to grow. Strend and TempletonAI enjoy a unique position as early adopters of emerging technology. This position will aid the software in refining its determinations and interrelations, providing users with a differentiated and forward-thinking experience.

# 1. Challenges with Financial Data Predictions

Estimates suggest that the world currently produces over 2.5 quintillion bytes of data per day. This staggering figure continues to increase as more of the world comes online. Subsequently, digital technologies afford unprecedented market access to a growing number of millions each year. The snowballing amount of data produced annually presents unique challenges for individuals who wish to make data-driven decisions. It is becoming increasingly impossible to account for all available data on any given subject.

This growing ocean of data suggests that new methodologies and tools are required for identifying trends and making actionable recommendations to users based on their respective preferences. The demand for such tools and services continues to skyrocket as existing forecasting methodologies grow increasingly inapplicable. Nowhere is this growth more evident than in financial markets, where retail participants have increasingly muddled the previous straightforward approaches to deriving market sentiment.

Access to the global financial markets has never been more straightforward. Retail trading applications allow anyone with a bank account to select investment vehicles of their choice, such as stocks, bonds, and options. This unprecedented level of access informs the increasing uncertainty within global markets. The unprecedented short squeeze of GameStop demonstrated the collective power of retail traders in the marketplace. As the number of market participants grows, so do the variables associated with market action – investors must seriously consider the potential consequences of misjudging retail market sentiment.

Furthermore, the retail investors undertaking these market positions are on average younger than any other time in history. Financial giant Fidelity recently announced a 223% increase in investors under the age of 35. This wave of growth among younger investors signals a paradigm shift in market analysis. Existing financial professionals must now navigate the difficulties of effectively communicating with a younger audience. Additionally, Fidelity recently broke ground by announcing trading accounts for minors. While custodial in nature, the opening of equity accounts for minors signals a paradigm shift in the retail trading market that existing software fails to address.

The ever-growing mountains of data and the need to consider this data more thoughtfully in investment decisions, place investors in a difficult situation. Current software allows users to consider some of the available data. However, these tools do not readily interface with one another, nor do they adequately leverage cutting-edge technologies to future-proof their value propositions. Existing solutions to these challenges and investor demand for software that adequately addresses their needs are largely mismatched.

## **2. Bifurcated Solution: Strend and TempletonAI**

We introduce two interrelated proprietary software packages that intelligently interface with large amounts of publicly available data. Users of our software can make data-driven determinations regarding their investments by leveraging the quantified metrics produced by both software packages. Interfacing the software packages with one another serves as a unique checks and balances system, assuring that the software evolves over time to identify qualitative language relating to market trends more precisely.

Strend and TempletonAI are the first software packages of their kind. While other analytical software on the marketplace makes rudimentary determinations, Strend and TempletonAI interface with a wide range of both qualitative and quantitative data to derive nuanced market insights. Both software packages are similar yet fundamentally distinct from one another. There are significant benefits that arise from using our unique proprietary approach to data analysis.

### **2.1 Strend**

The Strend software is the more generalist component of the software pair. The proprietary scraping software trawls a significant number of subreddits on the popular social media website Reddit. While undertaking this process, the software searches for financial tickers and logs the number of times they are mentioned per day. By the time the software has completed its scraping activity, it will have compiled a sizeable list of financial tickers for further analysis.

Following the subreddit scraping process, the Strend software interpolates the collected information with existing financial metrics derived from Yahoo Finance. Considerations regarding open and close price, market cap, daily trading volume, and other quantitative components factor into the aggregate financial metrics for a given ticker. Upon interrelating this information, the software produces a list of trending tickers. These tickers fall into the categories of stocks, cryptocurrencies, and penny stocks.

Strend also analyses total engagements in the form of up and down votes on Reddit as well as flairs for posts. Flairs such as “due diligence”, “technical analysis”, and more are analysed to better allow Strend to discern the posts content. As emojis continue to penetrate contemporary financial dialogue, the software additionally analyses symbols associated with a specific ticker on a given day. This categorisation process allows Strend to better quantify the content of social media posts. Based on this information, Strend utilises a proprietary algorithm to assign each post with a weighted score that represents the value of a given post.

The straightforward methodology of the Strend software allows for the rapid yet accurate collection of financial data from public repositories. As the more general component of the software pair, Strend serves as the backbone for both software packages. The categorisations resulting from the scraping process undertaken by Strend deeply inform how the TempletonAI software interacts with qualitative and quantitative financial data.

## **2.2 TempletonAI**

The TempletonAI software takes the abilities of Strend several steps further, allowing for a rich analytic process for qualitative financial sentiment. The software uses an assortment of social media data from around the internet. Things like Reddit post titles, text and comments, Twitter posts and comments, Yahoo News articles, and financial metrics all factor into the data sets produced by TempletonAI. Additionally, the software leverages price repositories such as CoinMarketCap and CoinGecko for data regarding cryptocurrencies.

The TempletonAI runs daily, ensuring users access to the most accurate price information for a given day. TempletonAI takes several ordered steps to ensure the most accurate financial data collection when interfacing with these social media and price aggregation repositories. The software scrapes the entire financial performance history of a given instrument from the public price repository, primarily focusing on the closing price of each instrument. Additionally, the software leverages data from Strend to create a historical array format for deep learning purposes.

This process allows TempletonAI to improve significantly over time and with each subsequent run, processing new and updated data. There are significant implications when using machine learning and artificial intelligence for financial price analysis. By incrementally improving over time, the accuracy of the TempletonAI software continues to increase. Subtle shifts in language become more discernible as the software matures, allowing for more accurate future predictions based on linguistic queues. TempletonAI enjoys the immense benefits of being a first mover in using our proprietary approach to make future financial predictions.

Following the leveraging of Strend's data, TempletonAI digs deeper into relevant social media posts. The software aggregates post titles, texts, and top-level comments from each Reddit post which contains both a financial ticker and company name. This process allows TempletonAI to discern both interests in each financial instrument and the sentiment regarding price action. This process occurs across the post categories of top, hot, and new, thereby allowing for a wider range of analysis.

A similar process occurs for Twitter and Yahoo Finance. The software aggregates each tweet containing a financial ticker and company name. Similarly, Yahoo News articles

are analysed to determine the market sentiment. By leveraging information regarding online financial conversations, TempletonAI delivers a turn-key experience for our users. Following this aggregation process, TempletonAI embarks on a proprietary data synthetisation process that utilises a proven methodology.

TempletonAI uses the in-house S.A.F.E. methodology for processing the data scraped from social media outlets. The first step of the process, Scrape, has been thoroughly explained in the above section. The following step of Analyse, entails attributing a quantifiable sentiment to a given post. This sentiment grade results from the software examining the overall tone of the post. Our proprietary natural language process software ensures the accuracy of the analytical procedure. In addition to positive or negative sentiment, the software makes broad determinations regarding the user's emotional state. Emotions like happiness, anger, frustration, and more allow TempletonAI to better discern the context of a given post.

Forecasting is the next step of the S.A.F.E. process. Utilising our proprietary deep learning algorithms allows TempletonAI to make predictions regarding potential market sentiment. This process also entails leveraging the historical data for a given financial instrument. In doing so, the software can forecast with confidence both the price and trend of a stock, cryptocurrency, or penny stock. The potential future value considers the close price of a financial instrument while the trend considers the instrument's overall hype and emotional sentiment.

Finally, the TempletonAI software evaluates the collected data. The software assigns weights to the data derived from the forecasting and analysis processes by using a separate set of deep learning algorithms. Evaluation engines then evaluate the profitability of a given financial instrument, condensing a large amount of analysed data into quantifiable metrics. These universally accessible metrics allow both financial professionals and retail traders to make decisions regarding their portfolios. Users can interpolate the profitability of one financial instrument with that of another, thereby enabling them to make comparisons between like financial instruments and maximise the value of their capital.

### **3. Getting Involved**

Futuristt will be conducting an initial funding venture for our software on the Kickstarter platform during the beta release, this will allow for anyone with or without technological knowledge to invest in our software and allow for the opportunity of receiving early access to the platform.

Futuristt will also be conducting a funding venture for our software on the Binance Smart Chain network closer to the beta release of TempletonAI which will also signal the production release of Strend. The Binance network leverages cutting-edge blockchain technology and provides users with a fully distributed experience. We have selected the Binance network to demonstrate the growing applicability of blockchain technology in today's world. Additionally, the favourable network fees on the Binance network enable any users to participate in the token sale in a low-cost, straightforward manner. The ease with which businesses such as ours can raise capital for product development and future scaling greatly aids the process of building differentiated, highly demanded software.

There is a total supply of one million (1,000,000) tokens available for purchase and distribution during the sale. Each token's price is fixed at one dollar – there are no private sale rounds for the initial offering. This lack of private sale ensures equal access for all potential investors who wish to benefit from the launch of our software. Initially, the token will not have any immediate functionality in either the Strend or the TempletonAI software. Shortly after launch, we will explore a reasonable time frame to create a web portal for token holders, allowing them to create user profiles and pay for software access via their tokens.

Futuristt retains additional tokens not sold at time of sale for subsequent future sale rounds. The company reserves the right to initiate additional sale rounds using the tokens not sold during the initial sale round pending legal clearance. The company will not mint any additional tokens – the hard cap for the project will always stand at one million. This configuration allows the company to ensure that it can take advantage of market forces post-sale. Should the sale not hit the hard cap, the company benefits from additional sale rounds.

Futuristt extends full support for the token over the lifetime of the applications. While not a core component of the software's functionality, we believe that blockchain technology presents a wide array of benefits to our ecosystem. The distributed and community-centric nature of blockchain helped to inform our decision to use Binance. As the software evolves over time, we encourage the community to identify potential new value propositions and use cases for the token.

## **4. Conclusion**

The rapid penetration of digital technologies continues to escalate the amount of publicly available data. User's ability to interact with the totality of this data has significantly diminished over the last decade. Additionally, the rise of retail trading and broader access to financial markets has increased relevant qualitative data on social media. While some software interacts with this data, there is a large latent demand for software that does so in dynamic and intelligent ways.

Strend and TempletonAI are complementary software packages that allow users to derive insights from social media posts which include financial information. These software packages use proprietary algorithms and a proven methodology to provide insights into a financial instrument's potential future value and trend. Offering users quantified indicators that succinctly convey this information, assists both financial professionals and retail traders in making data-driven decisions regarding their portfolio management.

As digital technologies continue to increase their ubiquity, the demand for the market insights provided by Strend and TempletonAI will continue to grow. Leveraging machine learning, artificial intelligence, and other deep learning technologies afford the software packages unique advantages. The software will continue to improve as the body of available data grows, thereby creating favourable conditions for significant market penetration. We look forward to continually improving the Strend and TempletonAI software packages and delivering users a differentiated user experience.