TradeRiser

LIGHTPAPER

A Decentralised Ecosystem & Research Assistant For Answering Trading Questions

Traderiser.com | Version 1.2

Contents

Abstract

In world of trading and investing, the most powerful financial analytics is normally in the reserve of the few. TradeRiser is looking to disrupt this, by democratizing financial data analytics and making it available to the masses. Researching trading ideas and exploring the financial markets is a slow process. What is required is a single source of truth, that can provide instantaneous answers, to trading questions at a large scale. Specifically how the news and events affect asset prices around the world.

TradeRiser is an artificially intelligent Research Assistant, that can answer simple and complex trading questions. To train the artificial intelligence we will be leveraging the blockchain to build an incentivization system, which will be supported and fed by data from a large network of quantitative analysts and researchers. A token based economy called XTI will be introduced, to incentivize researchers, for their data and contributions to the platform.

Following this a second economy will be created, around a research marketplace, in which quant model developers and content producers will be able to reach consumers within the ecosystem. This participation of the community will help fulfill the goal of democratizing and simplifying financial data analytics.

The Problem

Motivation - Simplifying financial data analytics

The growth of the world wide web led to innovations in search engine technology. This made the web more accessible and ubiquitous. However financial data analytics, has not enjoyed the same the level of simplicity and accessibility seen in the world wide web. The growth of big data cannot be stopped, financial firms and individuals alike are in a race to find trading opportunities. This task will only get harder as new avenues of data are discovered, human beings will struggle to keep up. This disconnect in accessibility and ubiquity presents a huge opportunity, to systems that seek to democratize financial data analytics.

Disrupting Human Intensive Research

TradeRiser is building an AI based Research Assistant, that can answer both simple and complex trading questions. Financial professionals worldwide spend a lot of time and money in research trying to answer these trading questions. This kind of research is normally time consuming, inefficient, prone to information overload and requires a lot of manpower. These problems are further compounded with the advent of cryptocurrencies and financial professionals wanting to trade them, alongside traditional securities. The rapid explosion of cryptocurrencies has left many other technologies playing catch up, individual traders need an easy way to analysis these asset classes.

Fewer Ideas Are Tested

Current platforms rely on a great degree of technical know how to test trading ideas, and due to the barriers to entry fewer trading ideas are tested. Every day a portfolio manager has an investment idea and has to go to a quant to build the model. That's a bottleneck within most financial services firms, and as a result far fewer ideas are tested. The same is true of individual traders who want to test ideas but do not have access to sufficient tools.

Time-Consuming

Quantitative research can be an incredibly time consuming process, as it requires multiple steps in order to be completed, sometimes spanning across several days and hours. Other bottlenecks include the computational process due to the amount of data being analysed.

Inefficiency

The research process requires the data gathering, data cleaning and data analyses, and the final step being report creation. This is an incredibly an inefficient process.

Information Overload

With data being the new “oil” or a valuable resource, the job of analysts is all the more difficult in trying to process data. New avenues of data are constantly creeping up which can potentially be exploited in financial research, especially unstructured data.

News and Events - Unstructured Data

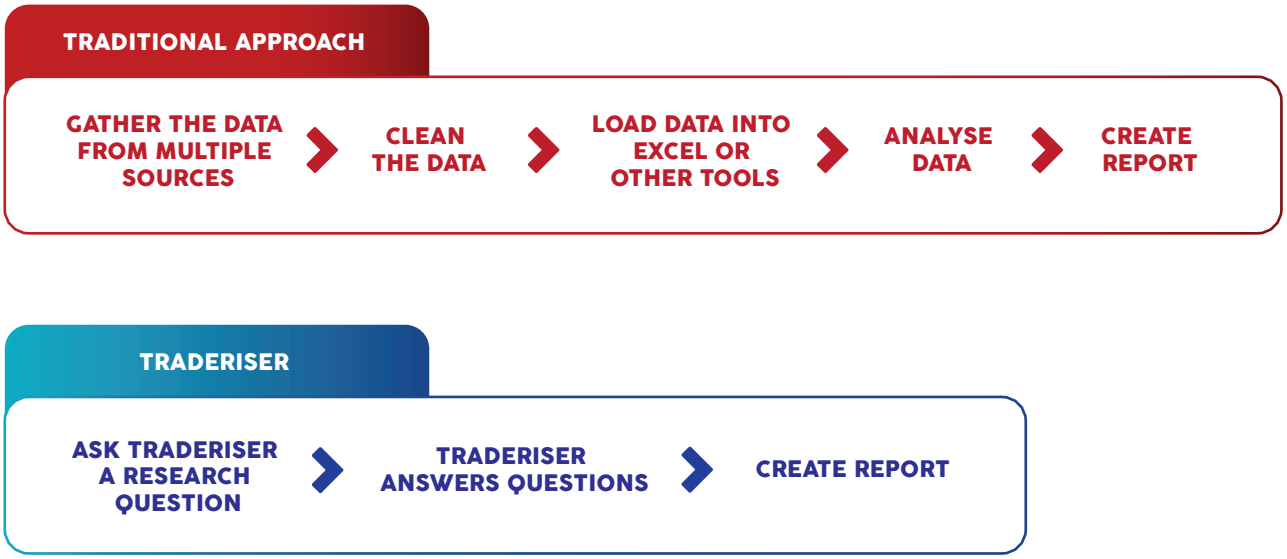
It is well known that the news and world events have impact on the financial markets, it is for this reason that tools such as the economic and earnings report calendars were created. These tools allow traders to keep up and monitor impactful events, however there is a whole basket of world events that have not be organised to be included in a calendar, that needs to be structured. As it stands traders struggle to keep up or hedge against data from sources such as twitter, cryptocurrency news, weather data and even satellite data. The whole universe of drug approvals, economic reports, monetary policy changes, and political events and their impact on nearly every kind of financial asset needs to be tamed and structured.

Solution

TradeRiser solves these problems through its Research Assistant that can immediately answer trading questions that a trader or investor has about the financial markets. TradeRiser's token mechanism will keep track and compensate financial analysts for their datasets of questions, data validation, accuracy checking, suggestions and example report creation. The financial analysts can contribute in these ways to help train our machine learning Research Assistant, and be compensated accordingly. XTI is the underlying mechanism used to facilitate this ecosystem, and provides XTI holders with direct participation in advancing our "single source of truth" questioning and answering system.

Improving the Research Process

TradeRiser focuses on making the research process quicker and an altogether better user experience. This is done by natural language querying.



Due to TradeRiser's functionality research consumers will be able to test more trading ideas. TradeRiser offers an alternative and complementary research platform that can work hand in hand with incumbent systems.

Opportunity - Phase One

Algorithmic trading and machine learning are proving to be disruptive trends in investment management. This kind of trading requires technical know how, and although the barriers to entry are gradually being removed it has still not be adopted in the mainstream. There is a strong use case for trading and research that is not algorithmically driven but based on natural language processing. Imagine instead of having to learn programming to develop complex strategies one could simply express it in natural human language.

Following the rising demand for cryptocurrencies and traditional assets, we believe there is a vast opportunity for: natural language driven research on crypto-assets and traditional assets.

Research Assistant - Use Cases Phase One

TradeRiser focuses on making the research process quicker and an altogether better user experience. This is done by natural language querying.

Use Case 1

James is an investor who invests in crypto-assets. Due to the sudden explosion of crypto-assets in recent years, technology vendors are still playing catch up. The correlation between unstructured data with these assets is yet to be harnessed. He turns to traditional tools to analyse the markets, but they are insufficient, his normal way of analysing these assets is by studying the charts. James wishes he could code so that he can use algorithmic means to research and invest but he can't. With several countries announcing bans on cryptocurrency, and public figures denouncing them, James wants to know *"on average how much do cryptocurrencies rise by 4 hours following a ban or a denouncement?"*

This will require James to carry out a lot of data gathering and running models within an Excel spreadsheet or worse purchase an application terminal to import and carry out the calculations.

Use Case 2

Ian runs his own crypto-asset hedge fund, he has list of investment ideas he wants to explore. He has a list of 20 questions he wants to investigate, however with limited resources and time, has no way of investigating these investment strategies quickly. Ian is not a developer nor does he want to outsource the work. The current state of play means he would have to rely on the one quantitative analyst he works with to go through these ideas which can take up to 2 weeks.

Ian wishes there was an application programming interface (API) he could call or submit his spreadsheet of questions to and get an answer back.

The Technology

Blockchain

The network software known as the blockchain, store information across a network of computers making them not just decentralized but distributed. This means no central authority owns the system. This storage of information and the collaboration on the network is based on rules often known as a smart contract. The Ethereum network is a platform that enables the creation of peer-to-peer applications based on smart contracts. This allows developers to create cryptographically enforceable relationships. Thus, XTI will use smart contracts to provide the network infrastructure it needs, namely incentivizing financial analysts, content producers, and research consumers to interact in our environment through the use of a token.

Natural Language Processing

Natural language processing (NLP) is defined as the automatic or semi-automatic processing of human language. NLP is essentially multidisciplinary: it is closely related to linguistics. It also has links to research in cognitive science, psychology, philosophy and maths. Within computer science, it relates to formal language theory, compiler techniques, theorem proving, machine learning and human-computer interaction. Nowadays it's generally thought of as a huge part of AI and machine learning. Our Research Assistant relies heavily on NLP to address financial data questions and for organising and classifying news event data.

Artificial Intelligence trained by a Decentralized System

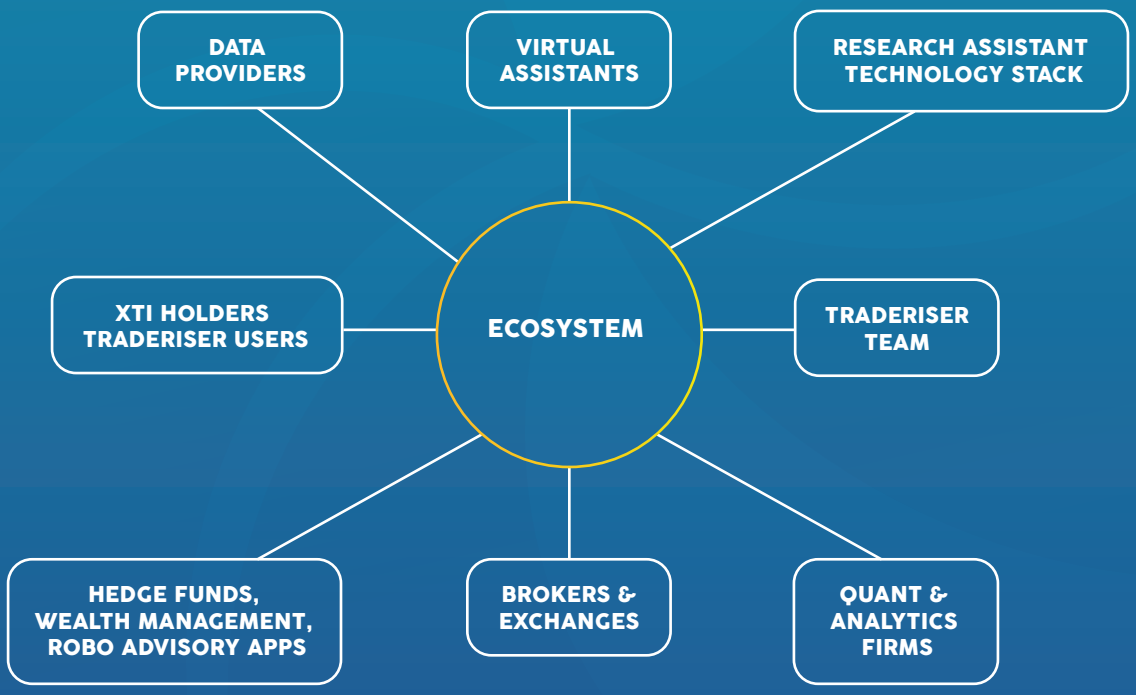
Artificial intelligent systems rely on data in order to build models to provide a function. The more quality of data, the better the model gets. Many financial professionals and independent traders all over the world have a wealth of knowledge and data, much of which remains private or unexercised. As explained earlier many trading ideas are not explored due to the barriers of entry. Models learned on data from a network of decentralised expertise hold the promise of greatly improving usability, by powering more intelligent applications.

Artificial Intelligence Today

Current work in machine learning has shown that larger models can dramatically improve overall performance. With the advent of deep learning, the field is rapidly expanding. With data being at the heart of machine learning crowdsourcing the questions and answers necessary to train models and incentivize participation via a token-based network will ensure a much larger model.

Solution Participants

The ecosystem can be seen as follows :-



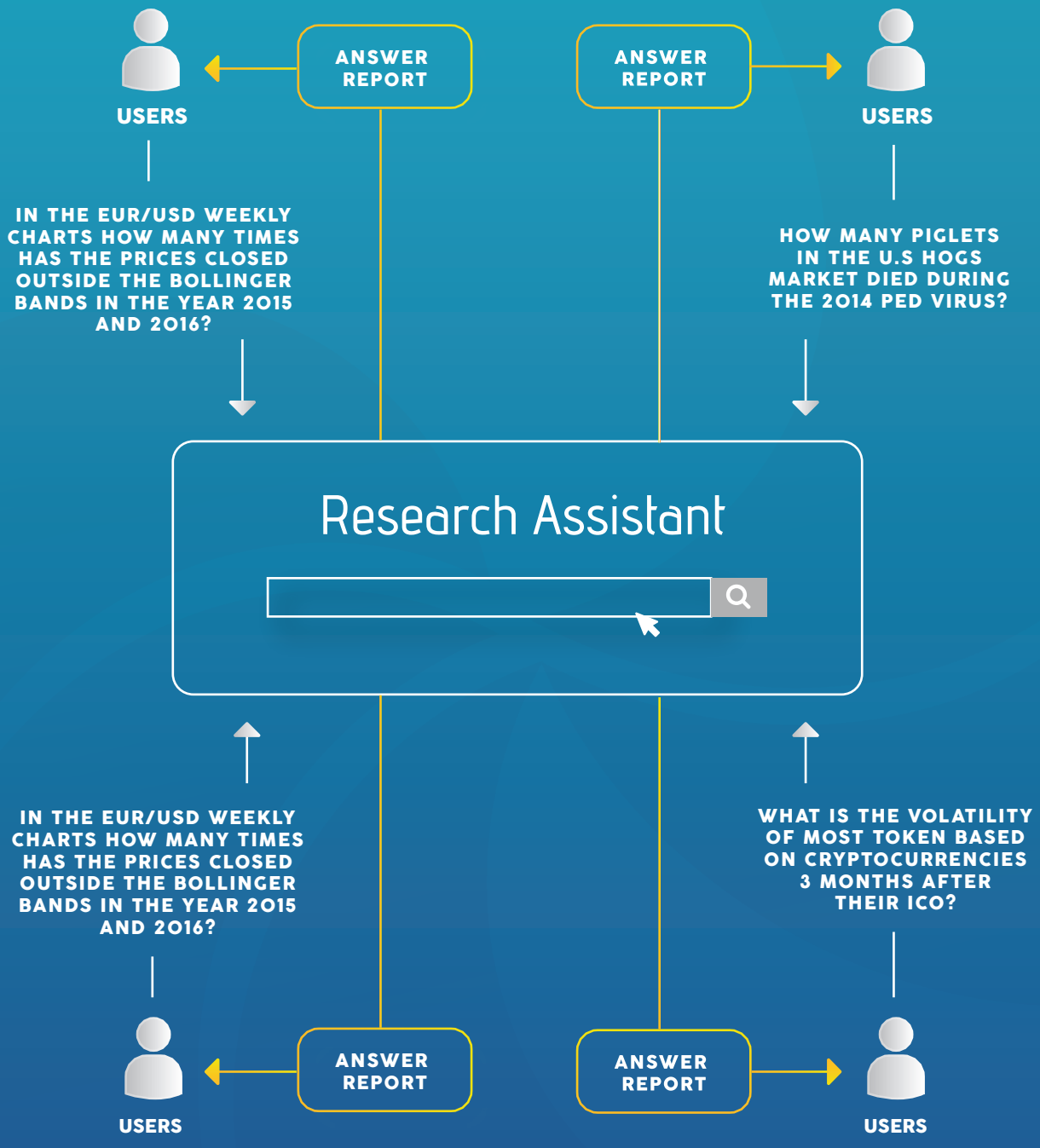


Fig 1 : Research Assistant Overview

Conclusion

One of the biggest challenges of TradeRiser is getting our Research Assistant model to reach critical mass. In other words getting it to a place, in which it can answer the majority of trading questions it's users will have. The system needs to be trained on a large universe of question, events and market data. Phase one addresses the way to acquire the data set of questions.

This will be done by TradeRiser issuing the XTI tokens as compensation for the ongoing contributions to building the knowledge base, from which the machine learning will be done from. Once critical mass has been reached, executing phase two in attracting research consumers onto the platform will be easy. With both the research consumers and content producers now fully on the ecosystem, the research consumers will now be able to reward the content producers for their premium content and voting. This ongoing cycle will create a chain effect, thus attracting more contributors to the platform.

Having an accessible decentralized ecosystem with multiple participants with the single goal of democratizing trading analytics, in which all members feed of each other address questions will prove influential and critical addition to trading worldwide.
Key to making this a reality are the following assets:

1. Community Edition :- This is comprised of many features that will be available to the community. They are as follows, the Research Assistant powered by the community data feed, ICO ratings, market condition analysis, ICO due diligence, investor portfolio analysis, direct trading, web and mobile app.

2. Research Marketplace - Accessible to Token holders. Part of phase two.

3. Enterprise Edition :- This standalone version is accessible to financial institutions, hedge funds or corporations. This includes our API.

The TradeRiser Team

Dennis Owusu-Ansah
CEO & Founder

Karianne Bakken
Social Media Manager

Sean O'brien
Business Development Manager

Daniel Jiang
Head of Blockchain Technologies

Poly Apraku
Chief Technology Officer & Co-founder

Leigh Laguisma
Senior UX Designer

Sunil Kumar
Full Stack Developer

Rocky Asante
Chief Engineer & Co-founder

Sukrit Wong
Community Manager & Quant

Advisory

Luca Zaccagnino
CFA, Investor, Former Business Consultant at RBS Bank

Jude Addo
Director of Private Banking at Standard Chartered Bank, Former Analyst at JP Morgan

Professor Tatiana Kalganova
Reader In Intelligent Systems at Brunel University

Thomas Wicka
Managing Director at Lloyds Banking Group

Kirill Klinberg
Associate at JP Morgan

David Sheppard
Former Commodities Trader at Morgan Stanley

Thomas Howell
Growth Strategy at Google

Roadmap

2014 - 2015
TradeRiser is founded

Q1 2016 - Q3 2016
Private Beta/Alpha test with traders & asset managers

Q4 2016
Selected for Accenture Fintech Innovation Lab London

Q1 2017
Finalist of Accenture Fintech Innovation Lab London

Q2 2017 - Q3 2017
Platform UI redesign & functionality improvement

Q4 2017
Fundraising Strategy

Q2 2018
Fundraise TradeRiser ICO

Q2 2018
Growing The Team and Market Data Provider Partnerships

Q3 2018
Launch Training Portal

Q4 2018
Launch Community Edition of TradeRiser

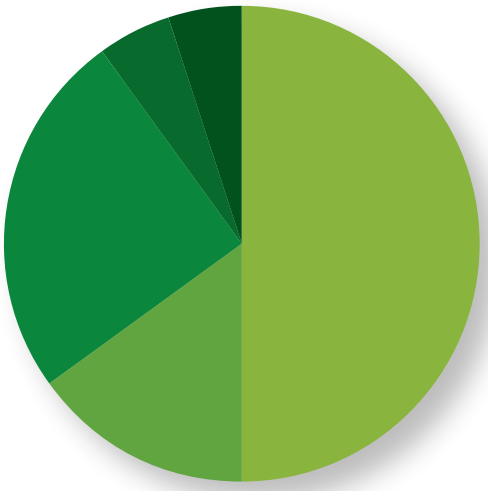
Q2 2019
Hedge Fund and Financial Insfitution Partnerships

Q3 2019
Launch Standard Edition of TradeRiser

Q4 2019 & BEYOND
Research Marketplace and Enterprise Edition

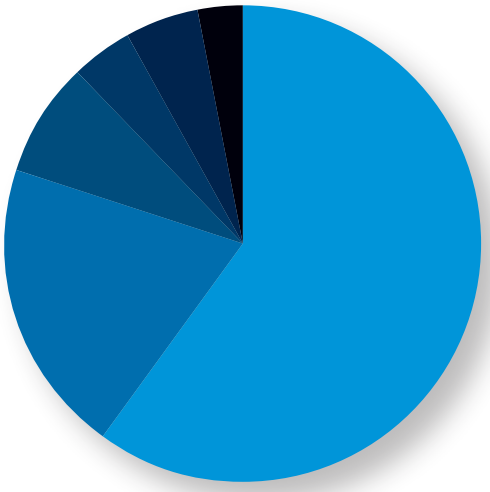
XTI Token Sale & Distribution

Token Distribution



- 50% Crowdsale
- 15% Distributed to Community for Ecosystem Incentivization
- 25% Company founders, advisors and employees
- 5% Bounty and Referrals
- 5% Strategic Partnerships and Future Development

Funds Distribution



- 60% Product Development
- 20% Marketing, PR and Sales
- 8% Partnership
- 4% International Expansion
- 5% General Admin and Operations
- 3% Legal

CrowdSale Details

- Target on crowdsale: $23,000,000
- Presale Cap: $2,000,000
- Total in existence: 500,000,000 XTI
- XTI Token type: ERC20
- Purchase methods accepted: BTC and ETH
- Will run during: May 2018 - July 2018
- Based on Ethereum blockchain and the Ethereum smart contract

Employee allocation of XTI will have a vesting period of 24 months, with a 6 month cliff. Allocation will be proportional to the tenure of each employee by the date of token sale.

Unsold tokens will be burnt.

PRE - ICO ROUND VALUE	ICO ROUND VALUE
1 XTI = $0.07	1 XTI = $0.10