The clever way to understand your customers

ListeningMind

Listening Mind collects and analyzes the most important consumer intention data throughout the Consumer Purchase Decision Journey, enables companies to gain a deeper understanding of consumers, and returns legitimate and suitable rewards to individual search users as well as fixing the data monopoly of search engines and portals.

www.Listening Mind.com

Disclaimer

This white paper is intended as a reference to provide specific information about the Listening Mind projects and teams.

The Listening Mind Team (the "Team" here after) is not responsible for the content of this whitepaper. The Team reserves the right to post the Whitepaper on the Website and modify, add or remove sections and the content of this Whitepaper for any reason, prior to, during, or after the sale of the Token.

This whitepaper is not meant to drive investment in a team or platform and does not address any given advice on investment, legal, tax, accounting or other financial issues.

It is the best that you consult with your legal, investment, tax, and accounting advisors prior to obtaining the token to determine the potential benefits, losses, and other consequences of your investment, and the outcome of such investment is entirely down to your decision. In other words, please note that the Team will not be liable for any damages, losses, debts, damages, compensation, or other liabilities caused by such a decision.

The Team will work tirelessly to achieve the vision of Listening Mind as outlined in this whitepaper. However, due to rapid changes in the blockchain and machine learning technology, any technical specifications and roadmaps can change at any time. Please note that there is a possibility that the items presented in the roadmap may not be fully realized.

The Listening Mind Token (LMT) is a utility token and is not a digital currency, a commodity, or any other kind of financial instrument. Therefore, this does not apply to the securities laws of the United States or other countries.

Due to the purchase of LMT tokens, you are not given ownership of the business decision-making powers introduced in this white paper or the interests of the company operating the Listening Mind Service.

In addition, the team will not be involved in any changes in the token value of the LMT that may occur during the token generation event and before and after the listing. Also, there is no claim for the buyer of the LMT token. Only a specific service function such as an event participation right can be provided arbitrarily according to the judgment of the team that issued the LMT token.

Listening Mind tokens are prohibited from selling or reselling digital token transactions to, or residents of, a restricted country or a local corporation.

The Team reserves the right to refuse or cancel LMT token purchases at any time at its sole discretion if the information provided by the customer under the Know Your Client (KYC) procedure is incorrect or misleading.

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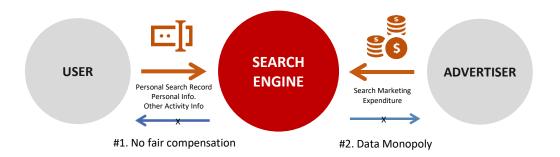
What does Listening Mind want to solve?

Problems

As we all know, 20 years have passed since the appearance of the Internet, and the search engine has become an integral part of our daily lives. Presently, around 84% of consumers are conducting some sort of search in their consumer purchase decision journeys. Thanks to search engines such as Google, Yahoo, Baidu, Naver, and Yandex, we are able to collect a range of information that allows us to make reasonable decisions.

Of course, the information that consumers enter search engines can help companies to understand consumers to a greater extent. Given that search ads, which will develop into a \$126 billion market by 2020, are based on the keywords put into search engines by consumers, it is easy to see how much value consumers have given to search engines.

However, there are two major problems with search services today. First of all, there is no fair compensation for search users who provide information as they search. Furthermore, at no time do search users know which company uses their information and how it is handled. The second problem is consumer information monopoly by search engines. Companies are not obtaining sufficient consumer information from search engines, even though they have contributed significantly to the growth of the search advertising market. If companies can get in advance what information consumers are looking for during the purchase decision process, they would be able to utilize their advertising budgets more efficiently through optimized marketing campaigns based on data.



Problem 1. No fair compensation for users

The information that search users provide to search engines has a great value enough to replace online and offline consumer surveys, but users have never received fair compensation for the information from search engines for searches they make.

Solution 1. Building a sustainable compensation system through LM token economy

Through LM Token Economy, Listening Mind will pave the way for search panel participants to receive fair compensation. This solves the problem of costly panel construction and operating costs.

Problem 2. Solve information proprietary problems in search engines

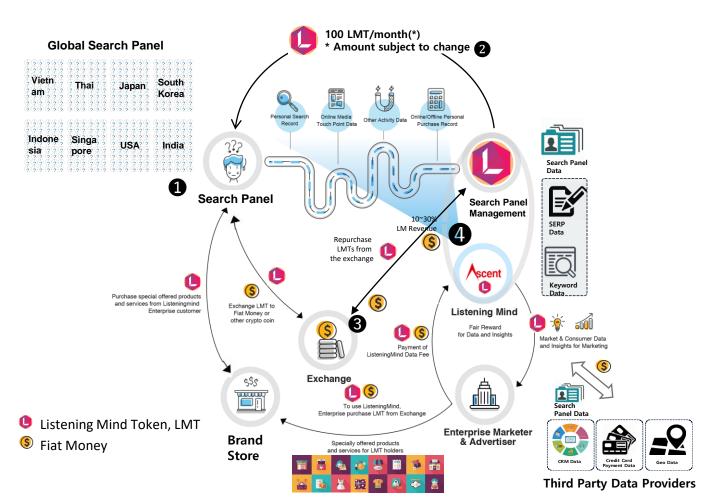
For marketers and advertisers, information about the intent and behavior of their audience is absolutely critical. However, only the search engines have those information and do not provide them to advertisers and marketers.

Solution 2. Building LM marketing data service based on search data and AI

Listening Mind collects and analyzes data from search keywords, search results, and search panels that search engines do not provide, and presents data-driven marketing insights to companies in real time. This solves the information monopoly problem of search engines.

Building LM market data service & sustainable compensation system

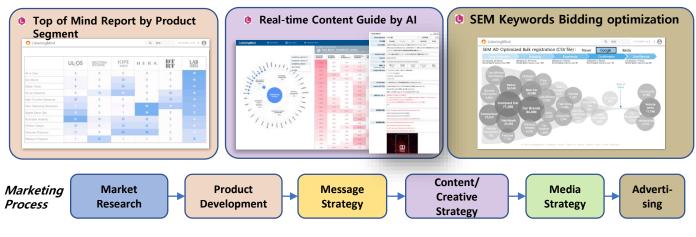
- Starting with Asian countries, Listening Mind will recruit millions of search panels to ensure the representativeness of over 30 countries over the next five years. From these search panels, Listening Mind can get a variety of audience information like search history, media visit information, profile information, purchase information, app usage information, location information and others.
- Participants in the search panel receive a certain amount of Listening Mind Token (LMT) each month as a reward. The initial set of LMT provision is 100 LMT, but after the LMT has been listed on the exchange it may change depending on the market price. (Refer to 2)
- Search panel participants do not need to do anything extra except installing LM Wallet (browser plug-in or app) to receive LMT. This is to prevent the search panel participants abusing compensation system to earn more LMT. Search panel participants that own LMT can sell it on the exchange.
- Listening Mind will continue to increase the number of search panel participants to get more accurate information in many countries (see 1). Listening Mind will buy back LMTs through in the market for continuous panel operation before the LMT is exhausted. As Listening Mind sales increase, the amount of LMT that buys back through exchanges and the amount of LMT distributed to monthly panels will be the same within the next few years. This allows the Listening Mind continue to grow.
- Listening Mind will store and analyze the information provided by search panel participants in an anonymized state and sell data and insights to their clients. Listening Mind will use 10% ~ 30% of these sales revenue(4 reference) as a source to buy back LMT, and as Listening Mid sales increase over time, LMT prices will stabilize and help to increase in the long term.

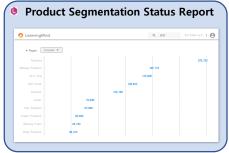


Listening Mind MKT data service based on search data and AI

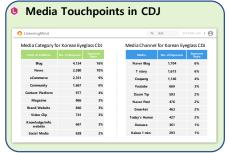
- Artificial intelligence and big data analysis in marketing areas have become common. More than
 ever, a variety of technical attempts and investments are underway to understand the consumer
 behavior and intentions. Data-driven marketing decisions are no longer a choice but a necessity.
- Instead of online and offline surveys, FGI, and FGD that existing marketers has used for long,
 Listening Mind collects and analyzes search data to uncover previously unknown consumer Insight.
 In particular, Listening Mind collects and analyzes diverse information about consumer intent and
 interest in their purchase journey that only search engines have collected and never opened in
 public for marketers who really need them.
- Search engine operators have been providing monthly search volume information only for one year term to marketers, which makes it difficult to understand the whole consumer purchase decision journey. Listening Mind will enable marketers to understand their audience more closely, thereby reducing and optimizing the budget.

Listening Mind's data service covering the entire marketing process

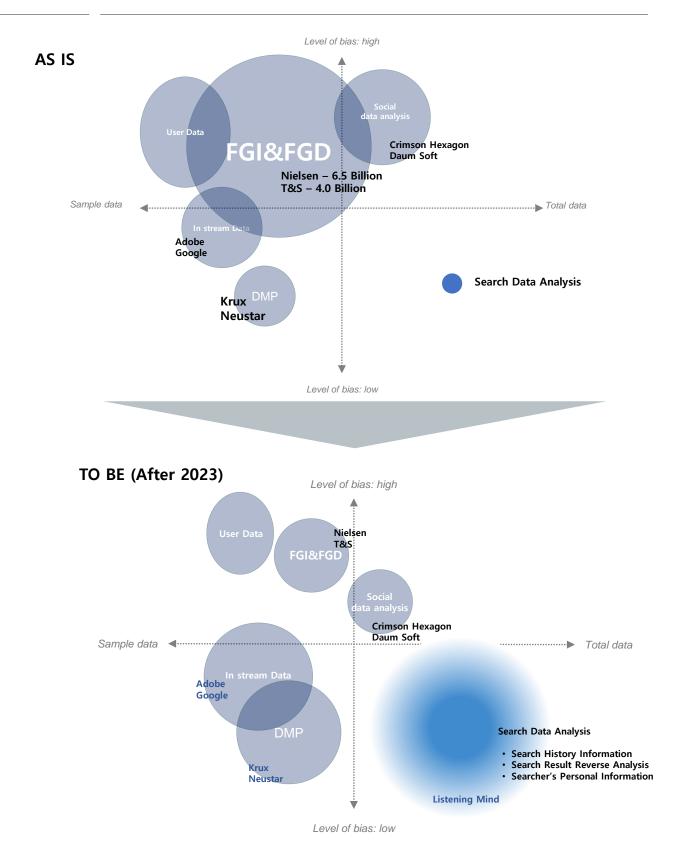








Marketing data service position (AS IS vs TO BE)



Vision

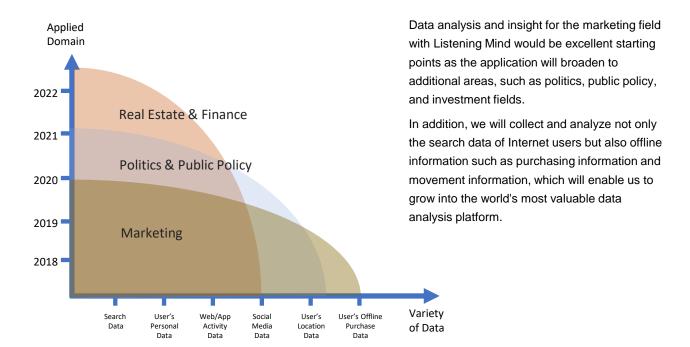
Listening Mind is paying close attention to search data not simply because search data presents a lot of data from Internet users. The reason why we do so is that Internet users provide their critical personal information regarding their needs, desires, and concerns to search engines such as Google, Baidu, Yandex, and Naver, which they usually do not provide to other Internet services. So if marketers use search data platforms such as Listening Mind, they will be able to locate in-depth consumer insights that are difficult to be found in traditional survey methods such as FGI or FGD.



In addition, the application of search data analysis through Listening Mind is not limited to a specific marketing area. For example, politics and public policy are areas where search data is likely to be extremely well-valued.

In the survey conducted by Seth Stephens-Davidowitz, author of 'Everybody Lies', a large number of US cities still display a strong search volume on racial discrimination against black people even though many people were of the opinion that it had disappeared after Obama's presidential election.

Four years after the survey was conducted, the polls in the US presidential election in 2016 clearly indicated that Hillary Clinton had gained considerably more popularity than Donald Trump, who had lost a number of his ballots due to the remarks he had made about African Americans. However, in the areas where a lot of searches were made using negative keywords about black people, Trump won against Hillary by a large margin unlike the survey results had predicted. This example highlights how search data can provide meaningful insights on socially sensitive topics such as topics on politics and the public policy area.



Differences from Other Projects

Listening Mind decentralizes user data that were monopolized by search engines. Furthermore, Listening Mind provides suitable compensation to the user panel, which is the data provider. There is a distinct difference from the existing marketing-related block-chain projects in that Listening Mind tokenizes consumer intent information obtained from natural use rather than the consumer's attention obtained at the expense of compensation provided to consumers.

	Listening Mind	BitClave	ВАТ
Big Picture	Decentralized Consumer Data Insight Platform	Decentralized Web Search	Decentralized AD Exchange
Key Driver (Subject to decentralization)	User Intention Data & User Profile	User Profile & Search Data	User Attention Data
Ecosystem Benefits	Consumer(User) & Corporation	Consumer & Corporation	Consumer, Corporation, & Media
Business Model	SaaS-based Data Analysis Platform Service	Listing Ads, Coupon Ads ("Craigslist" model)	AD Network
Differentiating Points	Marketing data platform services that provide consumer intention information based on search data	A type of listing advertising service that decentralizes the search service by matching search keywords with corporate advertisements (coupons).	Similar to the existing advertising platform. As an advertising platform, the marketing strategy platform is different from Listening Mind
User Gets Paid for	Data Accessibility Number of Data Categories	Data Accessibility	Watching relevant ads
Basis for AD offering	Backup data to build ad strategies	Consumer Preferences	User Attention
Feedback Loop	Complemented by SERP analysis data or search data from search engines	Organizations can organize offers based on consumer data	AI & Feedback Mechanisms:
Invasive Ads and Trackers	Used as a basis for ad production	Dedicated browsers exclusively select relevant ads and data	Browsers disable irrelevant ads or tracking code
Interaction Flow	Consumer(User), Corporation & Search Engine	Consumer & Corporation	Consumer, Corporation, & Media
Rewards Payer &Recipient	Consumers(users) are rewarded by corporations	Consumers(users) are rewarded by corporations	Consumers(users) and Media are rewarded by corporations
Token Used by Holders	Sell Tokens in exchanges. Listening Mind client companies of fer special conditions.	Sell Tokens for monetary value	Spend tokens for content, voting on comments, purchase of di gital goods, games, as well donating to publishers
Data Storage	Integrated Storage, private chain, a nd public chain	BASE Activity Ledger	Personal device

Who We Are

Who we are

Leading the Listening Mind Project, the core members of Ascent Networks are professionals with extensive experience in marketing, technology, and planning online services for global marketing and IT companies including Cheil Worldwide, Nexon, Lycos, and Cyworld.

Over the past several years, Ascent Networks has equipped itself with the ability to visualize the consumer decision journey through the analysis of keywords that consumers are looking for in search engines. We also have the ability to create a search data driven content guide for content creators through real time reverse analysis on the contents of the search results page.

Based on these capabilities, Ascents Networks analyze consumers in the smartphone market, automotive market, travel market, and fashion market in the US, Europe, Japan and China, the SK Planet and other global companies in Korea and Japan.

Clients

































Locations

TOKYO OFFICE

Ascent Networks,

Nihonbasi-Yamadai 5F

Nihombashi Kobunacho 6-3, Chuo-k

Tokyo, Japan

SEOUL OFFICE

Ascent Korea

#904, 311, Gangnam-Daero,

Hanhwa Life Building Dreamplus, Seocho-gu,

Seoul, Korea



Team

SEYONG PARK



Specialized in Marketing, especially marketing tech, owned media marketing, SEO, and data driven content marketing.

Ascent Networks Co-Founder Nexon Japan Marketing & Planning Director SK Communications Business Team Leader Lycos Content & Strategic Planning Team Leader Cheil Worldwide International Advertising Team

JIHOON KIM



Experienced Co-Founder with a demonstrated history of working in the information technology and services industry. Skilled in Online Advertising, Entrepreneurship, Marketing Strategy, and Online Marketing.

Ascent Networks Co-Founder SK Context Lab Head Lycos Community/Mobile Leader Cheil Worldwide Creator

LOWY SHIN



Blockchain Service and System Architect Machine Learning Specialist,RPA, MSA, Cloud Evangelist, System Performance Tuning.

Ascent Networks Head Engineer CloudN : Project manager of public cloud service Nexon Japan System Adminidtrator Kubernetes, Openstack, Kafka, Prometeus,EFK(Elastic, Fluent Bit, Kibana), ELK, HDFS Consultant

YOSHIOKA NAOKI



AI, Deeplearning professionals Japan Deep Learning Association Certified Generalist (IDLA DeepLearning for GENERAL 2017) (Written by AI Assistant's core concept – decision-making process design in the age of artificial intelligence) Director, XAMOSCHi Corporation

HYUNGJOO KIM



Head of AK Lab Block chain based ML&Data Lab Leader

Smart Forecast Founder Revy Search Founder Mathmatics in Seoul National University

YOUNGIL KIM



Marketing Specialist for Global Clients in Japan and Korea for Years.

Ascent Networks Marketing Director Nexon Japan Marketer SK Cyberpass Marketer

HYEYOUNG KWON



Korea Office Marketing Leader Search Data Research Head

Omnipnc Researcher Master of Consumer study Ewha Womans University Graduate School

KURE JUNKO



Sales and Marketing Specialists in B2B

Ascent Networks Sales Manager YSC International Manager Duzon Japan

SEOUNGWOOK WOO



With years of experience in web design, game design, mobile design & marketing.

Ascent Networks Creative Director Capcom Project Manager Konan Tech Designer Nexon Japan Ul&UX Designer Delirium Designer

Advisories & Partners

SEONIK JEON



Founder of FactBlock CEO of the BlockPost CSO of Financial News The Financial News Tokyo Bureau Chief

STEVE HAN



CEO of Techfrontier Head of Daum Japan and Director of Communications Strategic Management Team General Manager of Samsung Electronics phD in Artificial Intelligence(KAIST) Master&Bachelor of Engineering, Computer Science (Seoul National University, KAIST) Author: "How AI will change the future of industry", "A Lecture on Social Media",



SUNGHO CHOI

Managing partner of VEAT Lawfirm Legal Advisor of Dunamu(Upbit), AllBit Legal Advisor of Terra project, Airbloc project

Auditor of Woori Technology Investment Bachelor of Engineering, Computer Science (Seoul National University)

ATSUHIKO NISHINO



CDO of Momentum Japan Brand Communication Director of IMJ Chief of Chinese Business at IMJ CEO of Uniteair Co. Inc. Head of Creative Production at IMJ

ARSEN RABINOVICH



Search Marketing Professionals Speaker of many renowned global marketing summits

SMX West/SMX East/Pubcon/ Advanced Search Summit/ Ungagged CEO of TopHatRank

DAVID WOONG-JIN YOON



CEO of Equity Partners CEO of Solidus Investment and CEO of Cube Venture Partners Korea Bitcoin Co., Ltd. & Korea Bitcoin Exchange Founder Boston Consulting Group (BCG) CEO of Gravity, NASDAQ listed Wharton School MBA Master's and Bachelor's degrees in Accounting from the University of Southern California Seoul National University as a business major

Haesoo HAN



Walton Chain Korea Director

Chai Communication Cofounder Director of Mezzo, and Core Interactive Adjunct Professor of Advertising and PR in Nam Seoul University

Brian Oh



CEO of Block Made

King.com, General Manager, Korea Joycity Oversea Business Director Gamevil Oversea Business Director

FACTBLOCK











Increase of Marketing Data Requirements

Increase of marketing data requirements

The core marketing activities of the company include product planning, marketing message selection, media mix, and creative production. All of these activities should be based on the complete understanding of consumers.

Product Development Process

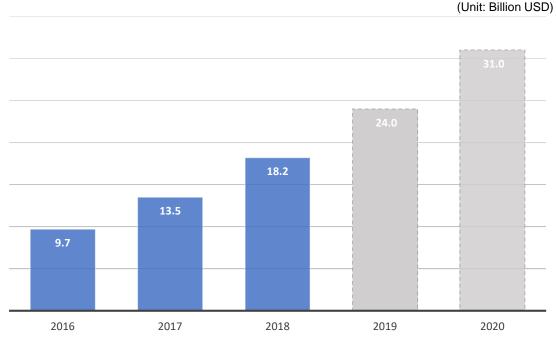
Marketing Communication Process



Until now, these marketing activities have been executed based on the marketer's intuition and experience. However, with the development of digital technology, and the spread of mobile and social media, the number of media has soared exponentially. This has in turn placed powerful search capabilities at the consumers fingertips. Now, we can see how both companies and consumers have transformed themselves into media. In this complex and rapidly changing marketing environment, it has become more and more difficult to simply rely on the marketer's intuition and experience. Therefore, it is now time to make decisions based on consumer-related marketing data.

In this environment, data-driven decision-making has had a major impact on the overall business activities, and the necessity for consumer-related marketing data has also increased significantly. Furthermore, the market for consumer-related marketing data is expected to grow to \$31.0 billion by 2020.

Size of the marketing related data market worldwide from 2016 to 2020 (in billion U.S. dollars)



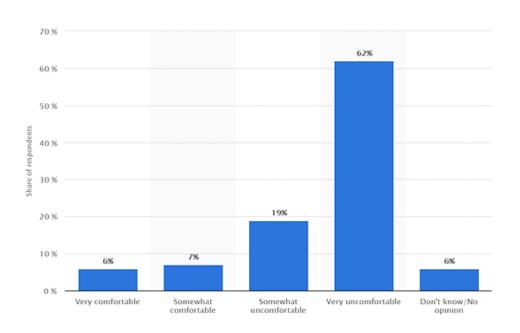
https://www.statista.com/statistics/818754/global-marketing-data-market-size/

Privacy and Security Issues about the Data Brokerage Service

Data brokerage providers are companies that gather internet activity information, and resell them such as search data, webpage browsing data, and the purchase data of Internet users who are data producers through cookie tracking or other methods.

According to the survey, 81% of consumers are seriously concerned about the privacy and security issues on data brokerage providers who collect their information for sale without the consumers' consent. In fact, there were several cases in which data brokerage firms had been hacked and lost the data they had accumulated from many Internet users. Even after those incidents occurred, these data brokerage providers still expose themselves to the potential hacking risk.

How comfortable are you with companies being able to sell data related to you, such as an email address, for online advertising purposes?



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Monopolized Search AD Market

The global Internet advertising market is expected to grow by 10% every year from 2017 to 2020. In particular, the Paid Search market, which is provided as a text link when users search, grows by 8% every year, and will reach 109.6 billion dollars by 2020. However, this huge market is dominated by a handful of operators such as Google, Yahoo, Bing, and Baidu. Google's share is overwhelmingly high (74.54%) while Yahoo, Bing, and Baidu have a 5% to 10% share of the search ad share (2017 - World Wide).

Internet adspend by type 2017-2020 (US\$ billion)



Source: Zenith

Strengthening the Information Protection Act (GDPR)

As of May 25, 2018, the European Union has issued the Privacy Act (GDPR), which may impose administrative penalties such as penalties for violating the data management of data brokerage providers.

The effect of this change enhances privacy, but on the contrary it also means that information gathering activities for consumer understanding will become even more difficult. In particular, online identifier information (IP address, cookie, device ID, advertisement ID, etc ...) can be defined as personal information because the data that can directly or indirectly identify a 'person' is defined as 'personal information'.

Although countries around the world have different regulatory environments, it is inherently clear that regulations are heading towards strictly managing personal information, such as the European Union's GDPR. Faced with this situation, data brokerage providers have been forced to attempt to come up with new ways to acquire and retain consumers' information.

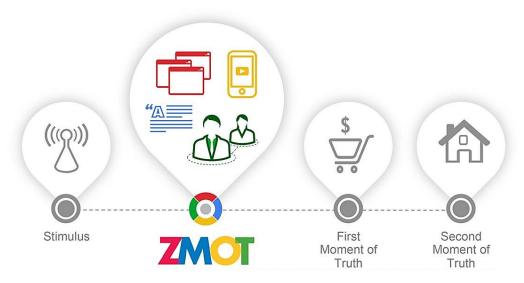
Classification	Before (Directive 95/46/EC)	After (GDPR)
Strengthening Corporate Responsibility	Minimum processing of personal information, notification of processing purpose, etc.	Designation of personal information protection officer involved in data management topics, information security and influence on IT for all data processing and systems that deal with personal data.
Strengthening Rights of Information Authority	Reading request rights, etc.	Add new rights, such as information transfer rights
Penalty Imposition	Different standards are imposed according to their own laws and regulations.	A uniform standard is imposed on all member countries.

Why Search Data?

Shoppers Conduct Online Search before Purchasing

According to a McKinsey survey, 84% of consumers conduct online searches before walking into a shop. Such pre-purchase search activities of consumers have been accelerated by the spread of mobile terminals. Therefore, it is no surprise that AIDMA (Attention - Interest - Desire - Memory - Action), which used to be the classic CDJ model, has been replaced by AISAS (Attention - Interest - Search - Action - Share).

The act of searching for information to make a reasonable decision is called the 'Zero Moment of Truth' (ZMOT) by Google; ZMOT is derived from the 'First Moment of Truth' (FMOT) when a customer is initially found with the product or brand in a shop (offline).



https://www.thinkwithgoogle.com/marketing-resources/micro-moments/2011-winning-zmot-ebook/

ZMOT which occurs when you are first drawn to a product or brand online wields the strongest influence on the entire CDJ; search engines are the most influential entrants of ZMOT, regardless of countries or industries. If businesses can obtain the data that interests and entices search users, they will be able to figure out what the users search for before walking into a store, which products they compare, and what aspects they value the most. Simply by acquiring these types of information will be a turning point that will dramatically change the conventional marketing strategy and subsequent implementation.

additional purchases

Search Dominates the Entire Buying Process

basic criteria

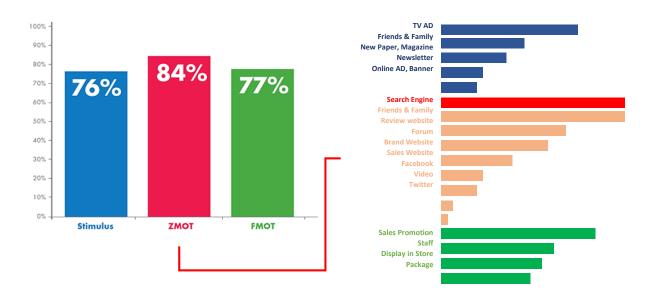
Forrest Research, which researched Microsoft's search engine Bing, discovered that the search process dominates the consumers' overall conversion activity from the initial research on products and services to the post-purchase experience. More than 70% of consumers have used search engines to search for new products and services, and have also used search engines to consider and buy (research, compare, deal). Another 50% stated that the purchase decision was made based on the search, and 20% of respondents stated that search engines were the most influential source for purchasing decisions.



reviews, features, cost

https://searchengineland.com/value-search-across-modern-consumer-decision-journey-270021

The McKinsey survey discovered that 84% of potential customers were conducting research through the search process at the ZMOT stage.

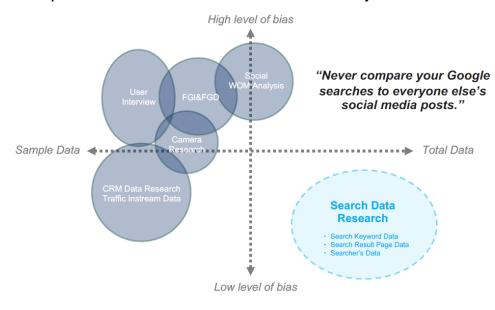


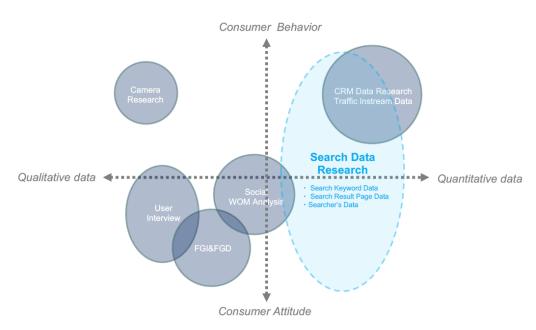
Total Data without Bias

Traditional research methods, such as questionnaires and user interviews, have the distinct disadvantage that they can be highly influenced by the environment or the question content. In order to solve this problem, we have recently collected and analyzed social posts and community articles using AI powered natural language processing technology. Based on these efforts, we have attempted to better understand the consumers' attitudes and behaviors.

However, it's not really that easy to get rid of the high level of biases that easily occur in social media due to the social behavior and user behavior in the community that wants to exaggerate or exaggerate oneself. Nevertheless, search data is information that displays your desires without bias. Other than the search data, no other kind of data presents more clearly the needs and desires of consumers, how they think and act, and why they are trying to do so.

Comparison of the Search Data with Other Consumer Survey Data





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Listening Mind Project

"The aim of marketing is to know and understand the customer to such an extent that the product or service fits him/her and sells itself... The aim of marketing is to make selling superfluous" said Peter Drucker. Therefore, it is essential for marketers to listen to the consumers' voices more than anything else.

Listening Mind is a brand name taken from the Judgment of Solomon, a story in which King Solomon of ancient Israel sought wisdom from God. From the original source of wisdom that Solomon obtained from God, we can find an expression, "Lebh Shomea", which means a humble heart that can listen to God's Word, rather than "Hokma" that explicitly means the wisdom to distinguish between right and wrong and between good and evil. This story clearly indicates that the wisdom of God is a "listening mind," rather than wisdom that we have already obtained. The brand name "Listening Mind" implies that a marketer's "mind to listen to and understand consumer needs" will turn into true wisdom for the marketer.

As explained earlier, Ascent Networks uses search data, which is non-biased, and whole data, to better understand the consumer needs. Since 2012, based on its analysis of the collected search data from Korea, Japan, China, and the United States, Ascent Networks has provided a visualized data of the Consumer Decision Journey (CDJ), industrial product segment data, and media contact point information in CDJ to major global enterprises such as Samsung Electronics, Expedia, Hyundai Motors, Kia, LG Fashion, and Hyundai Card. In addition, through the real-time analysis of search results with specific themes for each country, Ascent has also been able to offer information and insights on the context of the product USP of the consumers in each country to help them establish a more competitive content strategy.

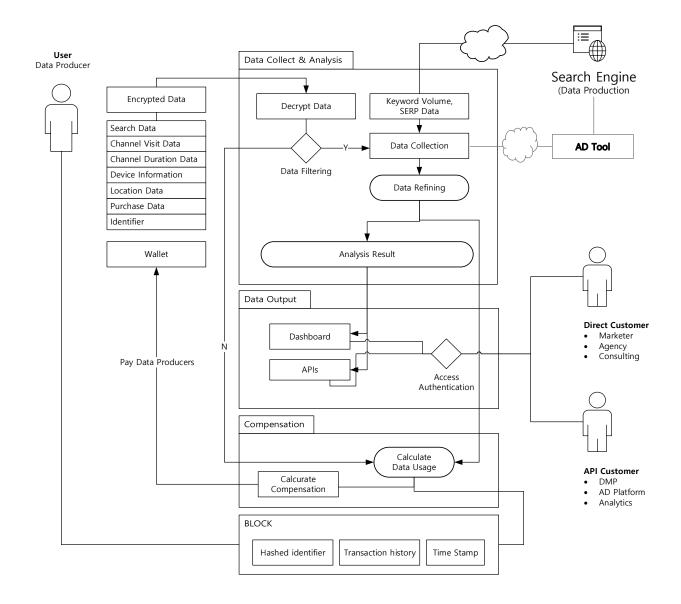
On the basis of such experience and expertise accumulated over the past five years, Listening Mind has mashed up additional information it secured from search info/search user panels in 12 major industries in 20 countries. Now, the plan is to take a leap forward to become a world-class data service platform that can deliver information to enterprise customers whenever it is required.

Listening Mind will also allow individual users to constantly check/manage what information is being used by which companies, and ensure that valued personal information is extremely well-controlled in a more secure and transparent environment.

Listening Mind provides companies with access to a variety of information provided by panelists. This will enable companies to use this information to plan effective marketing strategies and practices. Also, Listening Mind will build a token economy to provide panelists with fair and ongoing rewards. Information from panel users that previously had been monopolized by search engines will be decentralized to search engines.

Listening Mind Service Flow

Listening Mind is composed of "data collection and analysis", "presentation of marketing insights and data", and "the admin functions for user panel compensation", and "the APIs admin for enterprise client data access". The user-side interface will include browser extensions, mobile apps, and wallets. Companies that want to use the consumer data dashboard service that Listening Mind offers need to use the "Data Store" by paying with fiat money while the companies that want to use the SDK and API to access consumers' raw data need to use the "Data Store Plus" with the LMT Token.



Listening Mind User Scenario

Consumer (Individual User)

A 30-year-old IT worker living in Tokyo, Izumi is a panel member of Listening Mind. She is thinking about buying her first car. She thinks that the car that suits her is a compact SUV rather than a sedan. She wants to disclose her own search data and her channel visit data by adjusting the scope of disclosure. To make a reasonable purchase decision, she uses the Japanese search engines, Yahoo Japan and Google Japan. During her consumer journey, she enters various search keywords such as 'small SUV', 'SUV fuel economy', 'ride feeling', etc. She visits many of the automobile vertical portals, review blogs, the manufacturer's homepage, and YouTube. All of the data collected from her Consumer Journey, will be sent to Listening Mind. Even after she has made her decision, she can still see her stored data and data usage history through the Listening Mind admin screen for the panel. She can simply adjust the level of the information disclosure. If the Intention Token accumulates more than 1,000 yen, then she can withdraw the Intention Token and exchange it with Ethereum.

Corporate Client (Advertiser)

A US automobile company is making a marketing plan of its new compact SUV for the Japanese market. This car's target market is 25~35 year-old females living in the cities of Japan. They want to know how and what information their target market is searching for during their consumer decision journey and their target markets top-of-mind brand in the compact SUV market.

Listening Mind provides the answers to these questions

- · What keywords are most likely to be searched for by the target audience for each country?
- What is the most wanted brand in each age group?
- What are the most important features in making the purchase decision?
- What channels do consumers visit and how long do they spend on each channel?
- What format of content do the consumers prefer?

To use Listening Mind, they purchase the Intention Token from crypto currency marketing and use them for their data usage in Listening Mind.

Search Data Type and the Collection Process

Types of Search Data and Its Collection

Listening Mind divides search data into three major categories: i) Search keyword data, which is collected through the search ad management tools provided by major search engines in each country for advertisers (e.g. Google Adwords, Yahoo Business Center, and Naver Ad Home); ii) information on the high-level content (e.g. URL, format, meta data, and topics) in the search results that is collected by web scrapping and reverse-analyzing contents; iii) searcher information collected from the search panels, including the demographic information of the search users, search activity data, and website visit/purchase information after searches have been made.

Analysis of the Search Keyword Data

The most basic and essential part of the Search Data Analysis is the collection/analysis of search keyword data. About 80% of the search keywords consist of two or more words. At the end of a combination of two or more words, a keyword that contains the intention of the searcher is present. Based on the intention-containing keyword, Ascent groups similar keywords into small, middle, and large categories, and then rearranges them into five or seven levels of the Consumer Journey (Initial Exploration, Browsing, Evaluation, Experience, Purchase, Own, Service or Consider, Evaluate, Buy, Advocate, Bond) to create a Consumer Journey Intention Map.

Analysis of the Search Engine Results Pages (SERP)

The reverse analysis of the SERP provides an incredibly useful insight for marketers. The data contained in the SERP includes dozens of data such as the body of the web documents displayed on the SERP, descriptions, content formats, topics of contents, external links, internal links, keywords to the URL, and the LSI analysis results. Through reverse-analysis, and video intention mapping that locates the theme that customers want to find from video clips, as well as topic contents modeling, a creative guide is generated.

Collection & Analysis of the Search Panel Data

Search keywords and purchase data are collected from desktops and the mobile devices of a statistically-significant number of users in each country for analysis. The country-specific panels of Listening Mind are designed, recruited and managed by experts. The panels serve as data providers through additional programs (e.g. browser extension, Android mobile app, iPhone keyboard program, etc.) along with the wallet to be installed on their desktops and mobile devices; no further action is required from them.

Individual users can check and change the scope of information they are disclosing or will disclose at the time of joining the panel and once a month thereafter. The token rewards can vary depending on the amount and nature of the information, frequency of use, and the results of the data validation.

User Panel Components

Listening Mind is largely divided into components for enterprise and user panels. Components for the User Panel include Web browser extensions for the PC, apps for Android, and apps for iOS. Furthermore, the browser extensions and apps provided will include the Wallet function.

Browser Extension (Desktop)

To participate in the search panel, you must install the Listening Mind extension in your PC browser. The compensation will begin from Listening Mind once this extension is installed and its normal operation is confirmed. Listening Mind extensions support IE, Firefox, Chrome, Safari. This extension collects a variety of user activity event information, such as search data, purchase information, and the visited website information that users produce. This extension includes features such as surveys and notifications. Each user also has the ability to check their data disclosure range, usage history, and the balance of their current LMT.

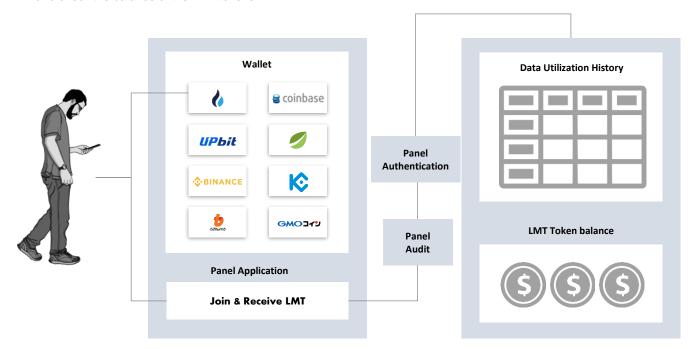
iOS · Android App

Listening Mind's iOS and Android apps are built on Chromium, and include Wallet along with browser capabilities, and use the OTP-based authentication to enhance security.

Wallet 1.0

Wallet will work on major operating systems such as iOS, OSX, Windows, Android and will be integrated with Browser Extensions, Android and iOS browser apps on PCs.

Wallet version 1.0 works with the API of the major Crypto Currency Exchange. This means that you can use this Wallet to consolidate the status of your assets held in a variety of exchanges. The Wallet user panel, which has gone through the process of [Panel Participation Application> Screening> Authentication], can also view data usage history and check the balance of the LMT tokens.



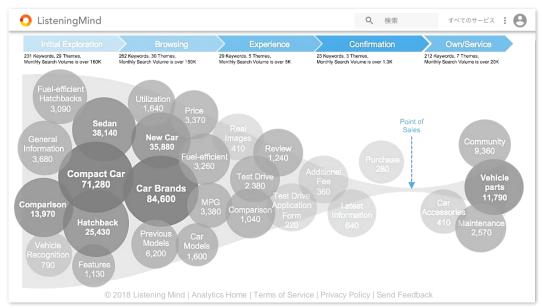
Wallet 2.0

With the Exchange API, the Wallet 2.0 will support P2P transactions between users and the ability to trade directly in Wallet without having to visit the exchange. We will also open a token mall where you can purchase items from Listening Mind's corporate customers as LMT tokens. For the user panels, the token mall will act as an extension of the LMT usage, and corporate customers will be able to pay the leasemind fee with the LMT tokens collected from the token mall.

Listening Mind collects the search data and extracts many of the marketing insights from it. Marketing insights are provided as several different types of modules in the dashboard of Listening Mind, which are the "Consumer Decision Journey Intention Map", "Video Content Intention Map", "CDJ Media Touch Point Analysis", "Searcher's Demographics & Preference Report", "Market Segment Map", "Top-of-mind brand".

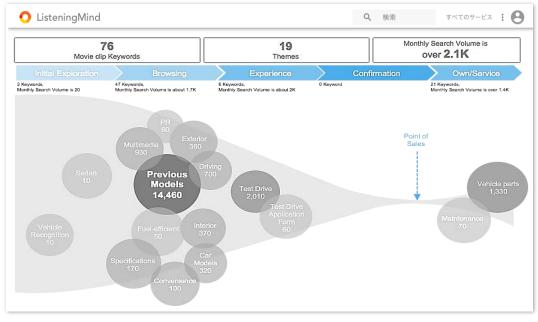
Consumer Intention Map for the Consumer Decision Journey

Listening Mind visualizes keywords that are actually searched for during a Consumer Decision Journey by grouping words together with a similar search intent. The significant keywords in the visualized CDJ are the key themes for message marketing in corporate marketing communications, as they are the themes that deal with the information customers desire.



Video Content Intention Map

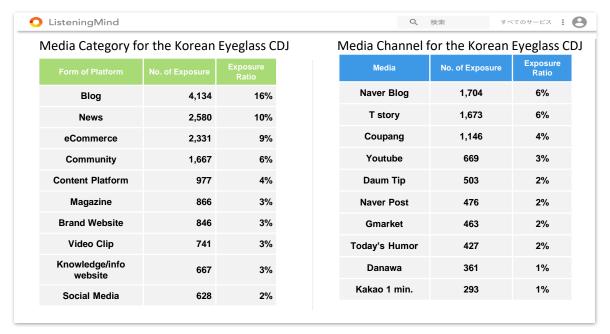
The role of the video in marketing is now becoming increasingly important. Listening Mind visualizes the theme you wish to view the information in the video content, among the information consumers require for their Consumer Journey. This will enable companies to see what video content they themselves require in preparation for targeting consumers.



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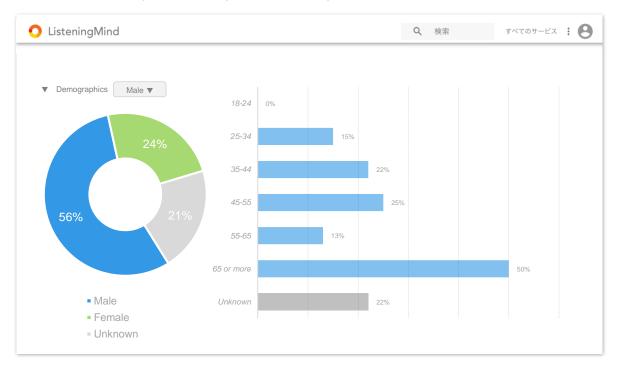
CDJ Media Touch Point Report

Listening Mind analyzes the media channels consumers create during their purchase decision process and analyzes the time the consumers take and the patterns before they reach their time to purchase. This can play a crucial role in establishing strategies for enhancing PR and referral traffic by locating the parent domain and upper format of each step of the CDJ.



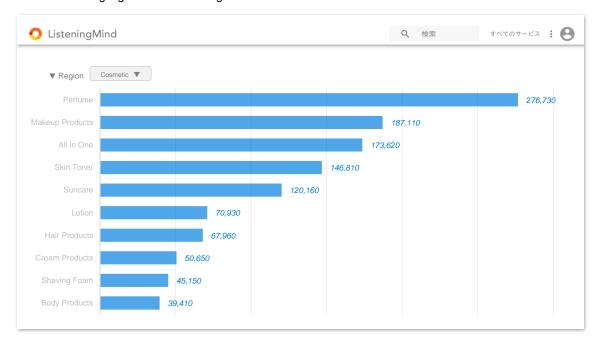
Searcher's Demographics & Preference Report

Based on the information provided by the user panels in each country, Listening Mind can analyze their favorite products and brands in groups of demographics and taste groups.



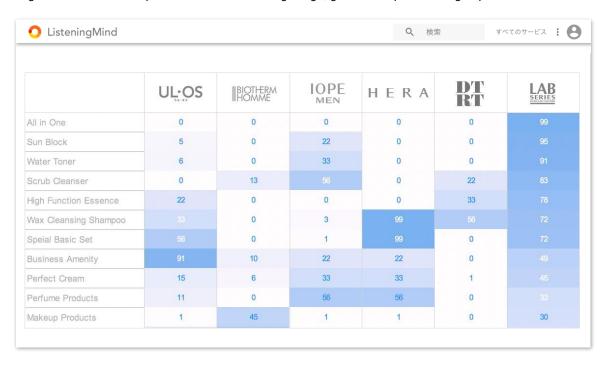
Market Segment Map according to the Search Data

Cosmetics, fashion, and travel markets are extremely fragmented markets. Listening Mind analyzes the search data and visualizes the configuration of the detailed market segments by utilizing real consumer awareness. This classification highlights the market segments that occur in the minds of actual consumers.



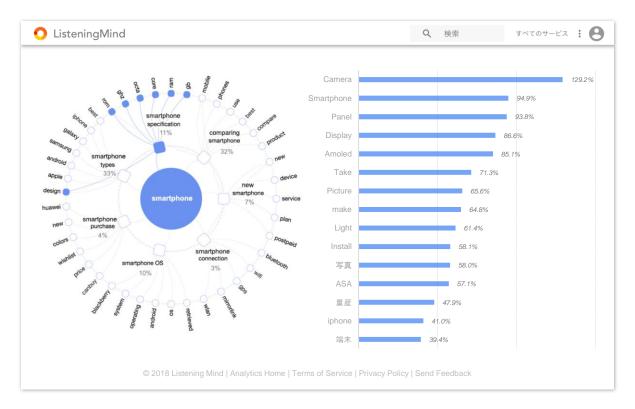
Top-of-Mind Report

When we perform a search, we do not care about other people. When we search to find the relevant information that assists us in making our purchase decision, if we think of a particular brand, we can say that the brand has the non-aided awareness of the consumer. Listening Mind is able to research top-of-mind brands within the detailed market segments of the various product markets according to age, gender and preference groups.



Content Guide according to the SERP Contents Reverse Analysis

Global search engines, including Google, Bing, Naver, and Yandex, have long sought to completely understand the content that they should include in search results. This has led to efforts to create more satisfying search results. The methods utilized by the search engines involved various topic modeling techniques such as the Vector Space model, the Semantic Topic Model, Agglomerative Clustering, LSI and LDA. Listening Mind is a data analysis platform that provides a content guide for the reverse analysis of the techniques used by search engines to create more accurate content that better suits your intentions.



Data Store Plus> Providing API & SDK

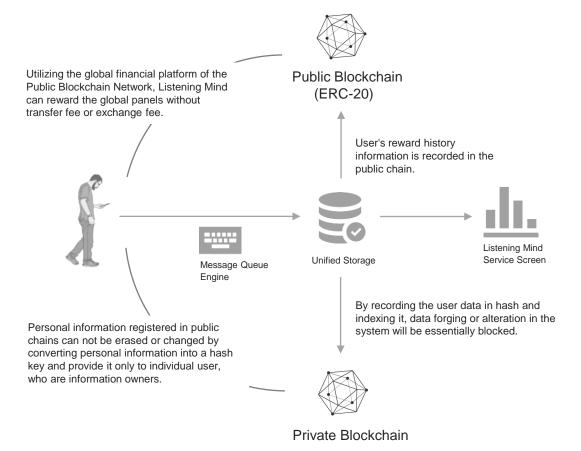
Listening Mind enables the data analysis tailored to the various requirements of the company by linking the data held by the individual companies, advertising agencies, marketing companies, productions, consulting companies, and solution companies with the data of Listening Mind.

Listening Mind provides SDKs and APIs, and a toolkit that makes it easier to mash up the company internal data with the consumers' raw data. This will allow companies to directly access the consumer interest information they require and create their own Insight module.

At this time, companies pay tokens for private key usage fees to access the panel data stored in Listening Mind, and the amount of tokens they pay is proportional to the amount of data you receive.

Why Blockchain?

In the meantime, search engines such as Google, Bing, Naver, and Yandex have been denounced for lack of transparency in collecting and using data. It has also been pointed out that there are duplication and inaccuracy problems in personal data that brokers sell to advertisers. Listening Mind is designed to provide a solution to these issues by making it possible for users to see how their information has been utilized by which company at any time and to provide a decent amount of reward for user's providing personal information via its LMT token economy. Utilizing public and private block chains together, Listening Mind provide advertisers with refined personal data.



Usage of Private and Public chain: The history of corporates' data usage does not need to be published in public block chain. Listening Mind records the data usage and history of corporate customers in a private block chain with user data hashes. The Listening Mind stores only the reward history for the user in the public block chain (It will start with ERC-20 but will be designed to be easy to switch to other main nets, such as EOS, Orbs etc.).

Unified Storage: The size of the data handled by Listening Mind is expected to be as large as 250PB. Whether it is public or private, block chains can not deal with this amount of data. Listening Mind therefore utilizes Unified Storage with block chains to store and manage both structured and unstructured data beyond PB.

Listening Mind System Architecture

Layered Architecture: The Listening Mind system is a layered architecture which has a flexible structure that allows all components to be easily maintained and expanded, and also changes some components with new ones when deemed necessary. The Listening Mind system has been designed for expansion on a global scale.

Asynchronous Data Flow: Listening Mind is designed to use asynchronous data flow (ADF) technology, which is suitable for conducting a global scale service, and to prevent other components from being affected by a failure or delay in part of the system. It has a structure in which the entire service will never stop even during maintenance which includes the maintenance of each component.

Key Value Store: Listening Mind uses JSON and RESTful data exchange methods to easily incorporate new technology when it becomes available. Therefore, it will be designed to be able to freely interoperate with other services and the internal systems of enterprise customers.

Presentation Layer			
Wallet	Dashboard	OpenAPI	Brand Shop
Service Layer			
АРІ	Analytics	Billing	Authentication
Application Layer			
Workflow Controller	ML Job Controller	Data Miner	Robotic Process Automation
Abstract Layer			
Private Blockchain	Virtualization	Software Defined Network	Container
	Virtualization	Distributed File System	ERC20 Lib
Physical Layer			
GPU Farm	CPU Farm	Ethereum Mainnet	
Network	Storage Farm		

Data Architecture

Private Blockchain Data

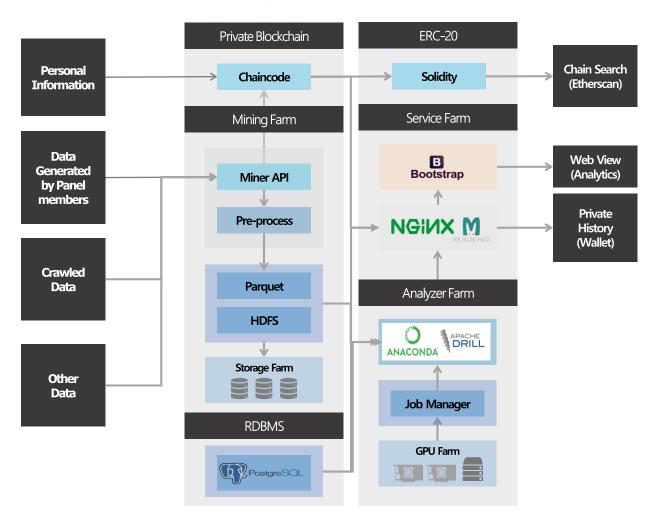
The PBD (Private Blockchain Data) of Listening Mind stores basic data except for the personal information of the panel acquired by the Miner API, and saves the history of data usage. The PBD also stores hash data to prevent any tampering of the panel data stored in large unstructured storage (HDFS), so that it can check to see whether or not it is being tampered with. This data allows individual users to view their information history and the LMT acquisition history in their wallet.

Public Blockchain (ERC-20) Data

Listening Mind records the compensation history of the usage of the panel data in the Public Blockchain. The Public Blockchain only stores the LMT usage history, eliminating issues and performance issues with sensitive information.

Listening Mind Data (RDB + HDFS + Parquet + Drill)

Listening Mind stores large unstructured data (panel creation data and crawl data) in HDFS in a Parquet format, and is designed to realize high speed extraction and visualization through the Apache Drill and high-speed processing. Also, relational data sensitive to data consistency is stored in the RDB.



Engine Architecture

ML(Machine Learning) Environment

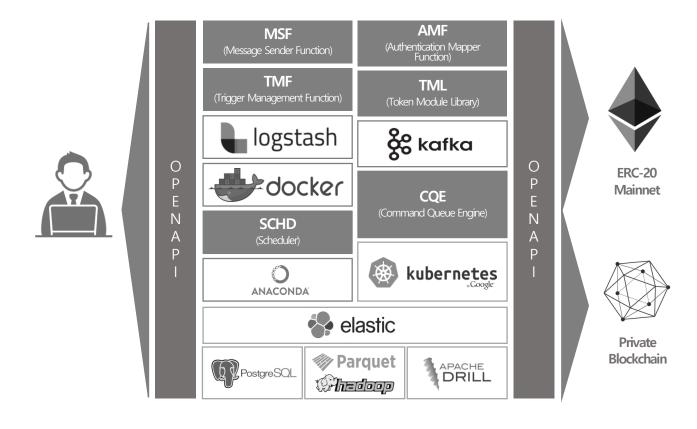
Listening Mind employs the Python-based Anaconda package for data analysis and is designed to introduce various ML or Deep Learning technologies such as Tensorflow as additional components.

Automation (RPA, Robotic Process Automation)

Listening Mind learns and automates the data and analytical processes collected and created by the existing Ascent Networks search data analysts. However, Listening Mind takes this one step further and plans to advance to the point where the robot will think in advance and collect and analyze data and insights that the enterprise customers require.

MSA (Micro Service Architecture) Structure

As Listening Mind's engine structure is designed based on MSA, it is structured to eliminate unnecessary functions according to the rapidly changing technology or to change only the necessary parts of the latest technology. Also, Listening Mind uses Kubernetes to ensure a fast service extension and Kafka for the data flow control in the Docker container management. Moreover, Listening Mind realizes a fast throughput by using ELK (Elastic, Logstash, Kibana) for storing and analyzing status and logs.



Search Panel Data Verification

Differential incentives by determining whether the search data is normal

To ensure a fair compensation system for the search panels, it is important to maintain the trustworthiness of the data generated by the search panels. Search panels are basically compensated for the information they produce. Thus, what is important in this mechanism is that the compensation system itself should be able to promptly detect any factitious actions performed simply to increase the amount of compensation and subsequently exclude that information as well as the panel.

There must be a technical measure to determine whether the information provided by the search panels is generated from the natural use behavior. There are dozens of search user behavior data being considered when drawing up such a technical measure, but here are several representative ones:

Туре	Description
Query Count	How many queries have been generated on average per day?
Keyword Entropy	The degree of disorder (entropy value) of the search keyword being entered (according to the number of queries)
IP Location	Is the access area in a normal range?
Clickthrough Rate	Search behavior vs. clickthrough rate of searched documents
Duration of Search Results	Search result page duration after query (seconds)

Using the search keyword entropy is one of many methodologies being used by Listening Mind to judge to see if the information being entered by the search panels is trustworthy and whether any fraudulent practices are involved. As the number of searches increases, the entropy of the data entered by the keyword is calculated. If the entropy moves closer to zero (increasingly structured), then the search data input by the panel is judged to be unreliable.

$$H(k) = E(I(k)) = -\sum_{i} \sum_{j} p(k_{ij}) \log_2 p(k_{ij})$$

Where the search frequency is "I" and the search query word is "I" and the entropy H(k) is calculated; if the entropy approaches zero, then the compensation for the search behavior can be adjusted to be close to zero as well. Listening Mind will also steadily verify the trustworthiness of the data collected from its search panels in other different ways to ensure that the system is not exploited. By doing so, it will continue to efficiently manage those data and ensure they are not distorted and remain reliable; this is because, after all, those data from the panels will be used as an important criterion for a business decision-making process.

Token Model

Listening Mind Token, LMT

LMT is the name of the token used within the echo system of Listening Mind. LMT is designed to create a suitable reward ecosystem for the user panels that provide the diverse information of interest, such as the search data, purchase data, and media contact data. In the existing advertising system or information brokerage's method, it was incredibly difficult to provide suitable compensation for the search data containing the individual intention information that each individual provided to the search engine. LMT is the heart of the new data and insight platforms that provide companies with a variety of marketing insights based on their search data analysis skills and experience, and the money they pay as suitable rewards for consumers.

LMT Usage

1.Compensation for enterprises to access the search panel data in Listening Mind

Companies can use Fiat Money or LMT to pay for the basic functions provided in Listening Mind. However, in order to directly access the information provided by Listening Mind's search panels, only the LMT should be used. The exchange rate between Fiat Money and LMT is determined automatically by the exchange or by the P2P trading system provided by Listening Mind via Wallet. There are various types of services for Enterprise available in Listening Mind.

There is a subscription type service that purchases the right to use a specific service for a certain period of time, and a pay-as-you-go type service in which charging occurs depending on the amount of data that is accessed and the right to access data. This means that companies charge a certain amount of LMT and use Listening Mind services while deducting them. For the customers with LMTs, a variety of new features developed and provided by Listening Mind will be made available to them before other corporate customers who only use other Fiat money.

2. Reward for search panel participants

LMT provides a free amount of LMT for each individual participating in the Listening Mind search panel for the first year. A year later, companies will give the search panels 10% of the LMT revenues paid in proportion to the amount of data produced by each country's search panel.

* The LMT distribution rule can be changed afterwards.

3. Payment

LMT can be traded in a transaction in the Listening Mind echo system. So in the short term, LMT can be used in exchange for a product or service that you buy in a branded shop in Listening Mind (where companies using Listening Mind sell special promotional offers for the search panels). In the mid to long term, however, it will be possible to use it in other app and service stores that collaborate with Listening Mind.

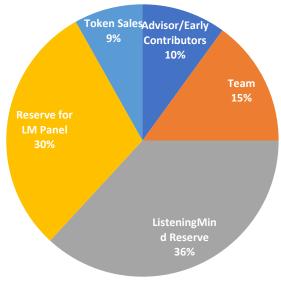
Token Economy

Token Generation

TGE Summary

Name of Token	LMT (Listening Mind Token)
Max Token Amount	7.5 Billion LMT
LMT Unit Price	1 Cent (USD)
Payment Method	ETH, BTC, USD
Soft cap	100,000,000LMT (1,000,000 USD)
Hard cap	620,000,000LMT (6,200,000 USD)
Pre Sale Starts	2019.04.22
Crowd Sale Starts	2019.05.15

Token Allocation

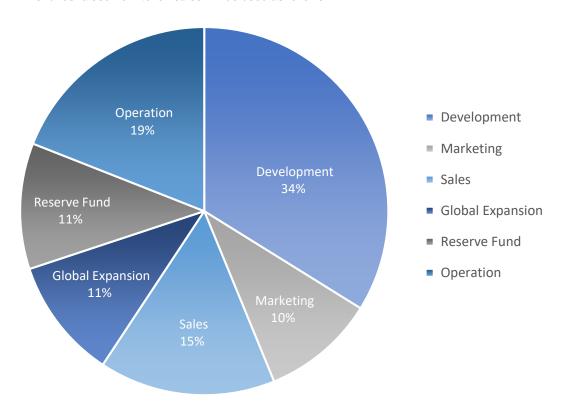


Group	%	Purpose	Conditions
Token Sales	9%	Covers the entirety of the private and public sale	Bonus: 0 ~ 15% * Differ from the point of investment. Locked up for 3 months after marketing listing, and since then for 6 months 1/6 of bonus token will be unlocked evenly.
Reserve Air drop for Panel	30%	Compensation for the search panel users, which is intended to support the Listening Mind Platform	LMT will be provided to panel members 6 months later after exchange listing. There will be no lockup period for the token for panel.
Team	15%	The team will be allocated LMT tokens as compensation for early involvement and to incentivize continued engagement in Listening Mind	Locked up for 12 months after exchange listing, and since then for 48 months 1/48 of tokens will be unlocked evenly.
Advisory/Early Contributors	10%	Token allocation in recognition for the resources and efforts contributed by key partners towards Listening Mind	(Less than 7,500,000) Locked up for 6 months after exchange listing, and since then for 6 months 1/6 of tokens will be unlocked evenly. (More than 7,500,000) Locked up for 6 months after marketing listing, and since then for 48 months 1/48 of tokens will be unlocked evenly.
Reserve	36%	Future investment, R&D, others	Locked up for 12 months after marketing listing, and since then for 36 months 1/36 of tokens will be unlocked evenly.

Use of Funds

Use of funds

The funds raised from token sales will be used as follows.



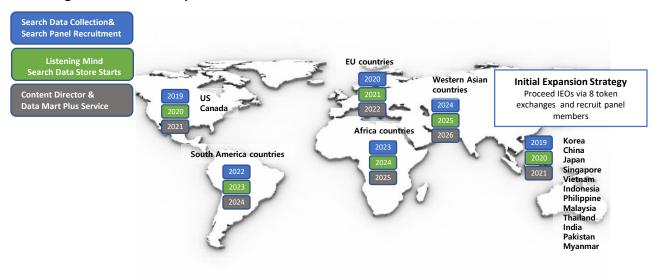
Use	%	Detail of use
Development	34%	System & software team building Investment for hardware, software, and the network.
Marketing	10%	Owned Media Marketing (contents marketing, SEO, and SMO) will be the center of the Listening Mind marketing communication strategies. 10% of the entire budget will be allocated to marketing.
Sales	15%	Establish sales team in 4 countries (Korea, Japan, USA, Singapore)
Global Expansion	11%	Office locations in 4 countries and travel expenses
Reserve Fund	11%	Allocate 11% as an emergency fund
Operation	19%	Tax, management team composition and operation, exchange listing costs and other operation expenses

Roadmap

The global population will reach 8.3 billion by 2030. Eventually, India will surpass China to become the most populous country in the world, followed by Indonesia and Brazil. As the population and consumption power of Asia grows, it is no surprise that global brands that cover various industries are becoming more attracted to the Asian markets. Having noted that such demographic changes are likely to occur in the near future, the first goal of the Listening Mind project is set to secure consumer panels in the most populous countries in Asia, such as Japan, China, Indonesia, India, Pakistan, Bangladesh, Vietnam, the Philippines and Korea in the next five years.

Global companies will also be the key customers of the data/insights provided by Listening Mind in the future, as it is important for them to secure marketing data created in a unified format/assumption beyond the borders, prior to making a heavy investment. In the initial stage, Ascent will concentrate on the data in Asia to commence business with more global brands while at the same time, reinforce/solidify its market presence there. Then, as its second goal, Ascent will extend its scope of data collection/analysis to cover 50 major countries across the world, particularly in North America and Europe.

Listening Mind Service Expansion Plan



Ascent will expand the scope of interest data it collects from the panels as well as target countries. By distributing Writable RFID chips designed to be attached to the panels' terminals, additional sources of information gathering (e.g. IoT) can be secured. Ultimately, Ascent's service will be marked as the first service that completely identifies the entire CDJ from online to offline (last mile).

Roadmap

2018 3Q ~ 2019 2Q Concept Development:

By providing marketing insights through search data research and analysis in a consulting format to some of the largest global corporations, the Listening Mind project has already started providing suitable rewards to search users in addition to fixing the search data monopoly issue caused by major search engines from June 2018.

2019 3Q	 Dev Team Building Building Crawling Infrastructure Started Listening Mind Core Engine Development Token Generation & Sale Service screen prototype development Wallet Closed Beta Service (Extension + Mobile Wallet) View Only Data Miner Core Development Machine learning logic design Begin building the infrastructure architecture User panel selection criteria and operation policy development Begin the service front development
2019 4Q	 Publish desktop browser extensions Wallet: BTC / ETH Balance Verification Wallet: Interoperating with Exchange API Wallet: User panel recruitment features Preparing and collecting user panel database (Desktop Only) Commence with user panel recruitment
2020 1Q	Coin / Token transactions between API-enabled wallets and external exchanges Automation of the crawl process Developing a Private Blockchain Core - Considering Hyper-Threading Data Analytics and Visualization Automate infrastructure management Analysis of user collected data and development of visualization Listening Mind to close beta opening service
2020 2Q	User panels access their information in wallet Listening Mind service officially opens Available in Korean English, Japanese, Chinese Block consistency and security enhancements Commence with sales and marketing Opening of 4 branch offices
2020 3Q	 LMT exchange function opens in wallet itself ML algorithm extension, data expansion with Image, video, voice 3rd party data API open
2020 4Q	 Open the P2P trading function in wallet Political / public domain information collection and analysis Machine learning mashup service opens - ML function opens to the data provider Expansion to 10 target countries Available in Vietnamese, Spanish, French and Russian languages
2021 1Q	AR / VR / image data collection and analysis function Service type robot data such as pepper interlocked More than 10PB data collection and analysis data Open brand shop Target countries - 20 countries Office locations in 7 countries Artificial Intelligence Marketing Advisory Service for SMEs

The clever way to understand your customers

Listening ™ind

Listening Mind collects and analyzes the most important consumer intention data throughout the Consumer Purchase Decision Journey, enables companies to gain a deeper understanding of consumers, and returns legitimate and suitable rewards to individual search users, as well as fixing the data monopoly of search engines and portals.

www.Listening Mind.com