vitasoft

September 2024

vitasoft now

Life and Vitality



Vitasoft has been developing innovative software solutions, applications, and integrated systems for the past 20 years.

Over the past five years, Vitasoft has added AI expertise as a core competency and made it our new mission to bring practical and innovative AI applications to the industry.

Company Overview

Established: 2004

Employees: 46

headquarters: 95, Gasan Digital 2-ro,

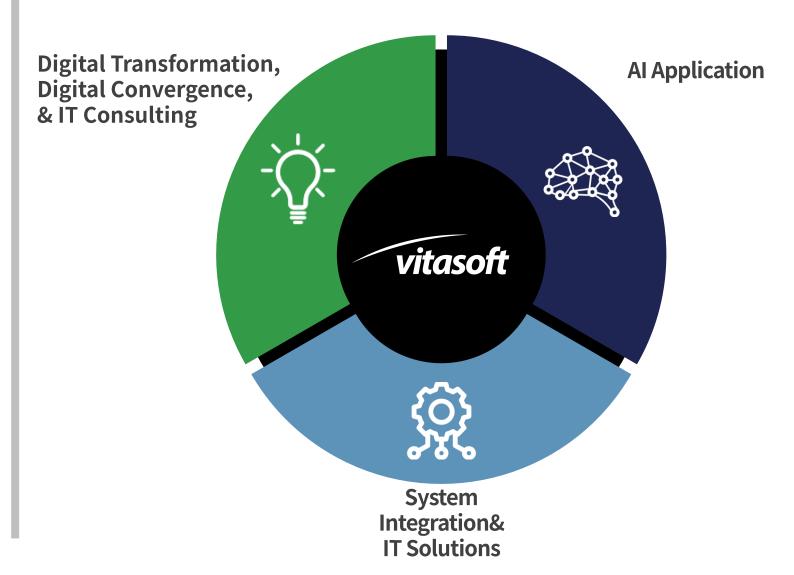
Geumcheon-gu

KM Tower 1506 Room 1507

capital: **500 million won** 2023 Sales: **KRW 4.2 billion**

Net profit 2023: 300 million

Business Areas





Financial Position (Last 3 Years)

Division			Year 2021	Year 2022	Year 2023	sum	average
	capital		180,000	280,000	500,000	-	_
	Consulting	BPR/ISP	17,582	144,000	194,864	356,446	118,815
	Commercial	Commercial SW Division		279,000	154,000	613,000	204,333
Sales	H/W D	ivision	-	-	-	-	-
	System Development Division		1,419,703	3,343,172	3,911,837	8,674,712	2,891,571
	sum		1,617,285	3,766,172	4,260,701	9,644,158	3,214,719
Operating Profit			104,676	23,153	315,838	443,667	147,889



Key Certifications & Intellectual Property Rights



Venture Business Confirmation ~2025.02.23



InnoBiz Company ~2026.07



Corporate Research Institute 2016.06.01~



Member of Korea Research Industry Association



Quality Management Certification (ISO-9001) ~2026년.08



Designated as a military service exemption company (Industrial Skilled Workers)



Design Registration Certificate (Patrasch : Electric cart)



Trademark Registration Certificate (파트라슈: patrasche)



Patent : Multi-label classification-based trademark image search



Patent : Template Server Service System



Trademark V-chain Platform Development Framework



Copyright:AI Learning Data Build Tools (Caff'e Label)



Copyright: Hotel Smart TV APP



copyright: Hangul Distribution Filter



copyright: Webtoon Authoring Platform



Copyright: Webtoon Authoring Platform (Photoshop Plugin)



Recent Projects



Customer: Korea Broadcasting Advertising Promotion (Project:

Al-Powered Ad Copy Generation and Storyboard Creation System (AiSAC)







Customer: Korea Customs Service Project: Al-based Counterfeit Reading System

Customer: Korea Finance Agency
Project: Financial education portal and homepage
integration renewal, functional improvement









Recent Projects

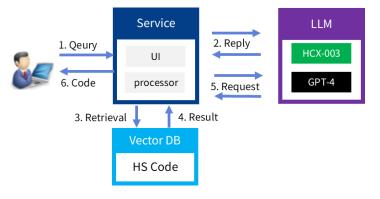
Customer: Korea Customs Service

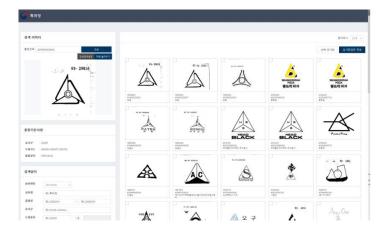
Project: 2023 Research on Applying Generative AI (GPT & etc.) to Customs Administration



HS code Recommendation

Counselling chatbot for custom clearance
 Inquiry into Customs Administrative Laws and Precedents





Customer: KIPO (KOREA Intellectual Property Office: 2021, 2020)

Project: PoC for Design Patent Image Retrieval and Trademark image Retrieval with AI Technology







Major Business Performance

Contract Name	Project Period	Contract Amount	Client
2024 LLM-based flagship academic activity support project	2024~2025	1,740,000	NIPA
Korea Finance Promotion Agency's Financial Education Portal (LMS) integrated website business	23.09~24.03	1,300,000	Korea Finance Agency
2023 Research on the application of customs administration using generative artificial intelligence (GPT, etc.)	23.01~24.12	60,000	Korea Customs Service
Establishment of K-Edufine Business Management System Advancement Master Plan ISMP	23.01~23.12	343,000	KERIS
Advancement of B2B platform for small and medium-sized companies (ISP)	22.10~22.12	79,200	KOTRA
Implementation of K-Edufine Advancement 2022 Key Tasks (ISP)	22.10~22.12	79,200	KERIS
Automotive used parts reading system using deep learning-based object detection technology	23.04~23.10	300,000	RECYCLING PARK
2022 Data construction project for artificial intelligence learning (large-scale OCR: financial logistics)	22.4~22.11	300,000	NIA
2022 Artificial Intelligence Learning Data Construction Project (Gugak Music Score)	22.5~22.12	600,000	NIA
2022 AI Convergence Counterfeit Product Reading System Project	22.5~23.12	654,000	NIPA
Development of autonomous driving algorithm for AI-based electric vehicle following driving	22.4~22.10	286,385	MyBello
AI-based high-resolution video background removal algorithm and video edge editing SW	22.4~22.10	306,900	K-HOLO
Eco platform and large-sized waste collection system construction service	21.12~22.5	256,800	Gwangyang City Hall
Al-based advertising marketing trend visualization monitoring and copywriting auto-generation service establishment	22.6~22.12	290,000	NIA
2022 Safe Pharmacy Operation Information Management System Maintenance Service	22.3~22.12	67,550	Seoul City Hall
Advancement of AI-based open advertising creation system	21.5~21.11	390,334	KOBACO
Research on the linkage of national knowledge information in the field of culture (ISP)	21.3~21.6	19,340	KCIS
KIPO General Design Image Retrieval System PoC	20.6~20.12	214,000	KIPO
5G DX(Digital Transformation) Platform Construction Project	20.7~20.12	280,000	KT
2019 Establishment of Intellectual Patent Net (Trademark Division)	19.5~19.12	181,820	KIPO
2020 Business management system operation and maintenance (including autonomous districts) service	20.1~20.12	222,500	Seoul City Hall
Consulting on the establishment of an information strategy plan (ISP) for the utilization of big data	19.10~20.1	45,000	Hansei University
Oriental Medicine Classical DB API Establishment and Website Improvement Project	18.10~19.05	71,000	Korea Institute of Oriental Medicine

Vitasoft tomorrow

Generative AI-based webtoon authoring/conversion platform

LLM-based business support assistant

Thesis Writing
Support Service
with Naver Cloud

Al-Based Design Recognition And Image Retrieval Tool

ToonCake ™

& LLMonAgent™

SophiAcademyTM

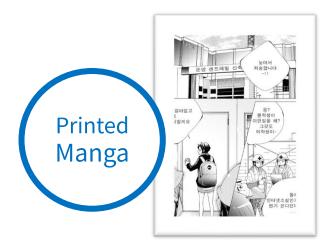
DesignTrac™

Generative AI-based webtoon authoring/conversion platform

ToonCake TM .

Making Webtoons? It's a piece of cake!





Generative AI-based webtoon authoring/conversion platform



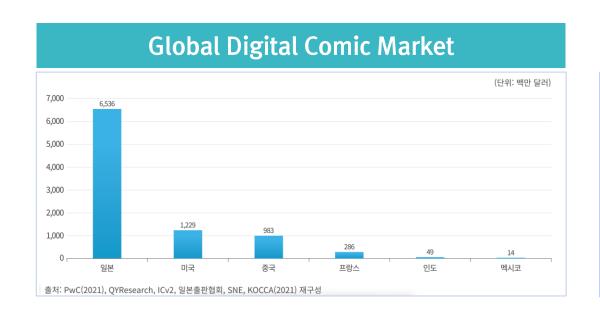


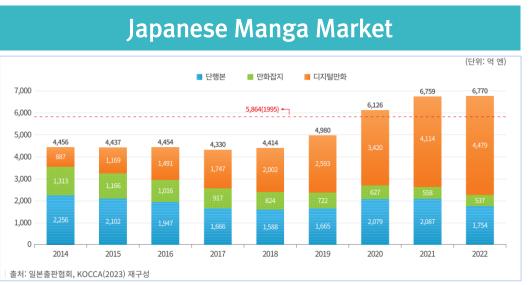
→ With the 'Toon Cake' platform, the 17-step webtoon production process is easy and fast to maximize the market responsiveness of webtoon content in the webtoon market that is sensitive to customer reactions.



Global Webtoon Market and Japanese Manga Market Status

Global webtoon market: Expected to grow to \$19.27 billion (about 26 trillion won) by 2029. CAGR of 24.3%. The proportion of mobile access is 87.7%





More than 72% of the global market is occupied by the Japanese webtoon market. The Japanese manga market is 677 billion yen, and the digital manga market is 447.9 billion yen.



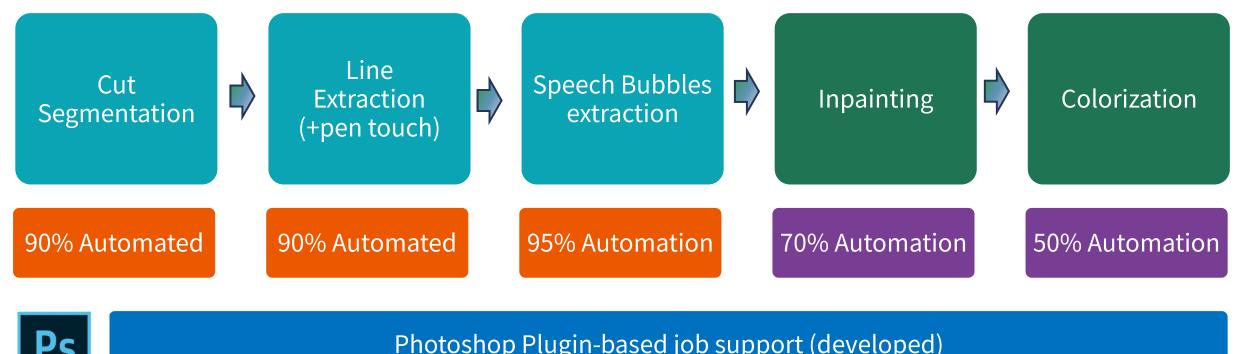
Printed Manga → Webtoon Conversion MVP



https://ai-webtoon.caffelabel.com

In 2023, we will have more than 90% satisfaction in the cut-separation/line extraction pen touch/speech bubble extraction section of published comics,

Completed development in the form of Photoshop plug-in tools, in 2024 Automation add-on for impainting and coloring is being improved





Photoshop Plugin-based job support (developed)

Key Issues and Business Opportunities in the Webtoon Conversion Process



Manga Webtoon Conversion Process Input Man-Hours Reduction Target Effect

Al Technology application		Sketching retouching & Inpainting	Coloring	Text Processing	Inspection /Revision	Working time (as of episode 1)
Before	5	32	40	8	8	93 hours
After	0.06	1	1	0.002	8	10 hours

If you can reduce time/cost by 10%, validate market reaction early



10 episodes Taste Production Distribution Verification of customer response in the market Decision to turn the previous work into a webtoon



Revenue Forecasts and Targets

Within 5 years SOM, \$1 B

Revenue Fore	ecast	Y1	Y2	Y3	Y4	Y5
Webtoon Conversion	Titles	45	128	144	96	72
(Manga 2 Webtoon)	Sales	\$4,500,000	\$12,750,000	\$14,400,000	\$9,600,000	\$7,200,000
Revenue Distribution	Titles	5	23	96	144	168
(Manga 2 Webtoon)	Sales	\$351,750	\$1,582,875	\$6,753,600	\$10,130,400	\$11,818,800
Webtoon Conversion	Titles	0	0	36	144	192
(Novel 2 Webtoon)	Sales	\$0	\$0	\$3,600,000	\$14,400,000	\$19,200,000
Profit Sharing (Novel	Titles	0	0	24	216	768
2 Webtoon)	Sales	\$0	\$0	\$1,688,400	\$15,195,600	\$54,028,800
	USD	\$4,851,750	\$14,332,875	\$26,442,000	\$49,326,000	\$92,247,600
Total Sales	KRW	6,307,275	18,632,738	34,374,600	64,123,800	119,921,880

^{100,000} USD for 100 webtoon episodes of 1 published comic book, 30% of sales

XEXIST REVENUE SHARING SALES ARE CALCULATED BY Adding up the production cost recovery period for each hit (assuming 35% for the average work, 63.5% for the excellent work, and 1.5% for the hit work)



LLM-based business support assistant



An Al assistant smarter than me

Everybody wants a smart AI assistant.

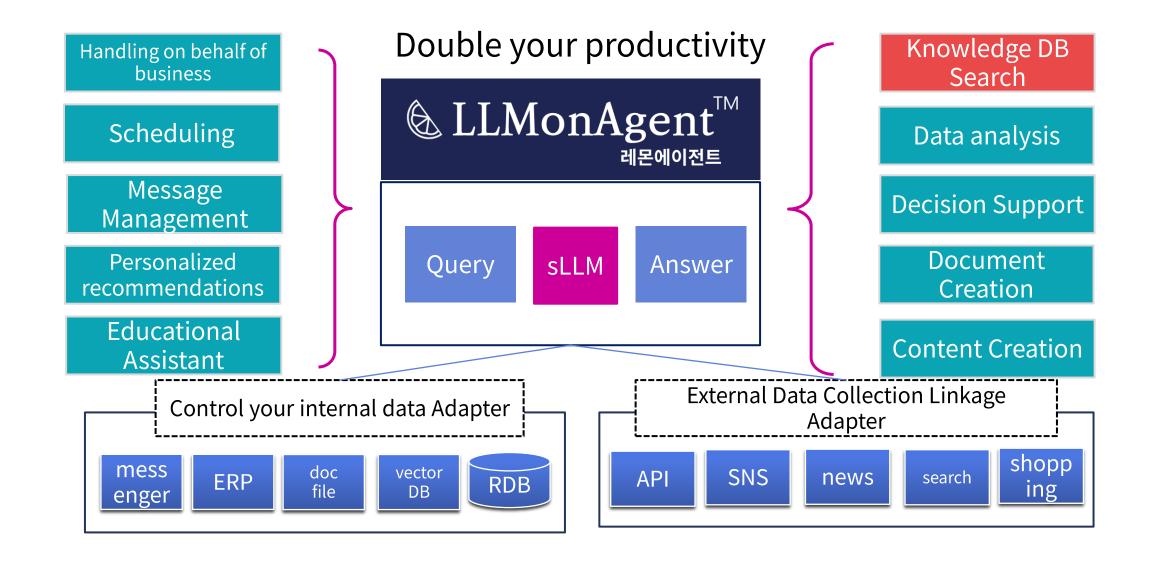
"Graph the monthly trend of fixed expenses in the first half of my company and send it to my email."

"Please select the ones related to AI patent applications from the press releases on our website and make a list of titles and links. And make a messenger phrase to introduce the contents to the CEO of the partner company, Hong Gil-dong."

"Find the name and phone number of the sales manager in Suwon, Gyeonggi-do, on our company's organizational chart, and send a text message and KakaoTalk to my phone."



LLMonAgent is a powerful 'business support AI assistant'



Key Features of LLMonAgent

Knowledge DB Q&A

- Knowledge DB Search: Natural Language Questions/Answers
- Legal, manual, Q&A-based knowledge DB construction system

High answer accuracy without Hallucinations

- High answer accuracy without Hallucinations By Advanced RAG
- Understand the intent of a question with advanced RAG technology and search documents for answers that match the intent

Automate Vector DB configuration

High level of automation in the process of configuring document data vector databases. Greatly improved accuracy of table and graph switching processes

Domain-specific learning efficiency

Automatically extract training datasets for training specific to your company's domain and optimize terminology training

Action Agency

- Executing Application Linkage Commands
- Send mail, send messages, schedule meetings, shop, etc.

Multi-prompt+ Multi Adapter

Adapter configuration tailored to the prompt for each task maximizes the fine tuning effect and improves resource utilization efficiency

Operating Environment On Premise

Configuring transactional language model services tailored to on-premises environments for security-sensitive internal data

Lightweight system infrastructure

LLM lightweighting tailored to the minimum level of inferenceonly GPU servers and NPU application levels

MVP: Knowledge DB-based generative chatbot

Demonstrated: https://chat.magicon.ai

LLMonChatTM

Al Agent

- 통합 검색
- 직제규정
- 위임 전결 규정
- 민원 처리 규정
- 건설 기술 관리 규정
- 개인정보보호 규정
- 공직자 윤리 규정

AI 챗봇

※ AI Agent에서는 토지 주택공사의 업무 기준, 규정, 세칙, 매뉴얼 등의 자료를 찾아볼 수 있습니다.

- 이 위임 전력할 때, 중요 사항과 일반 사항은 어떻게 다른지 알려줘
- A 위임전결규정에 따르면 중요사항, 일반 사항, 경미한 사항으로 구분하여 위임 전결할 수 있습니다.
 - 1. 중요 사항: 해당 업무의 기본이 되거나 비중이 큰 내용으로 공사의 권리 의무를 정하거나 변화를 주는 사항을 말합니다. (위임전결규정, 제4조 제4호)
 - 2. 일반 사항: 권리 의무를 수반하지 않거나 법률, 사규 등으로 정해진 절차 및 기준에 따라 집행하는 사항을 말합니다.(위임전결규정, 제4조 제5호)
 - 3. 경미한 사항: 중요 사항 및 일반 사항에 부수하며, 방침, 상위 계획에서 정한 범위 내에서 시행하는 것을 말합니다.(제4조 제6호)

위임전결시, 중요 사항은 사전에 직상위 직위자의 지시를 받거나 시행 후 그 내용을 보고하여야 합니다. (제5조 제1항) 일반사항과 경미한 사항은 별표1에 따라 전결할 수 있으며, 전결권자는 직위자에 한합니다. (제9조 제1항, 제4항)

따라서, 위임 전결할 때 중요 사항은 사전에 보고하며, 일반사항과 경미한 사항은 $\frac{별표1}{1}$ 에 따라 전결할 수 있습니다.

위 답변은 다음의 내용을 바탕으로 작성하였습니다. "답변 만족도 : like (♣), dislike (❤)"

더보기

대화 초기화

질문을 입력하세요.

검색

Natural Language Questions/Responses

Answers based on designated documents such as statutes, bylaws, manuals, etc.

Category
Apply a prompt template

Link to Supporting Documentation

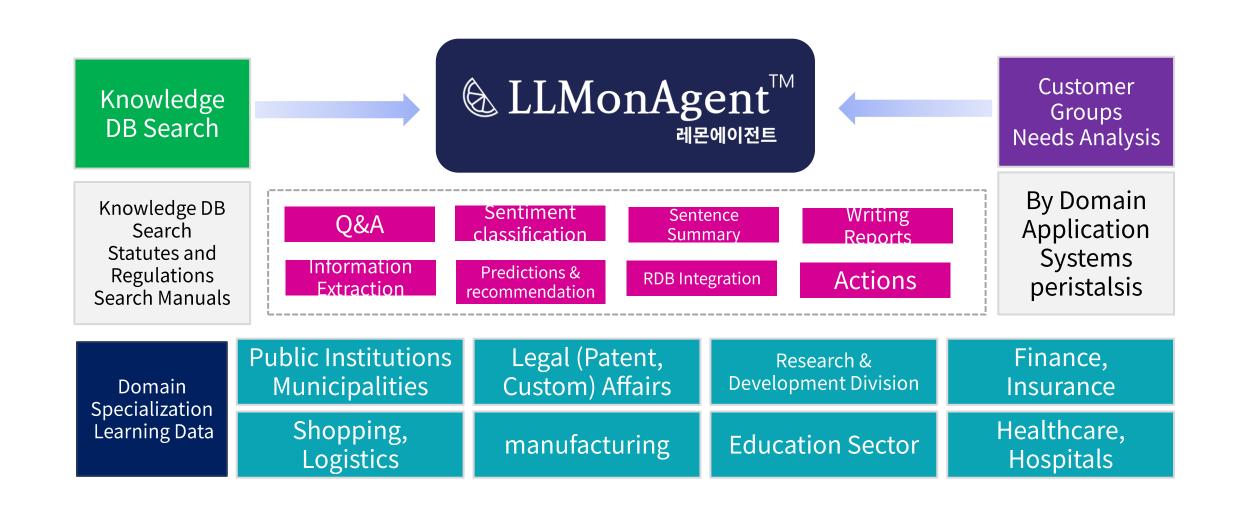
Answer Satisfaction Feedback

Multi-turn question handling

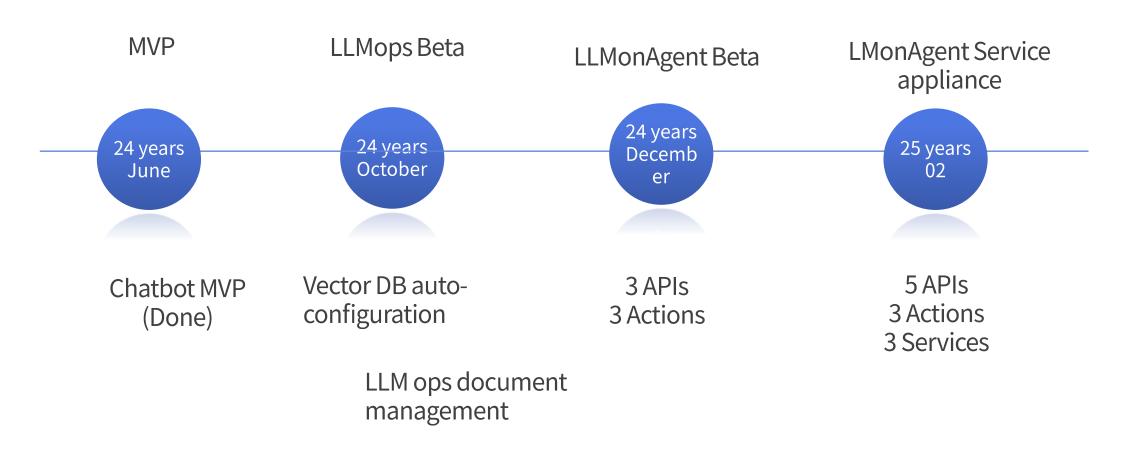
File Upload / Automated Analysis



Customer Group Needs Analysis and Market Access Strategies



LLMonAgent Appliance Launching Schedule





Revenue Target (5 years)

Conservative view of market 5% occupancy

Unit: ea, Million Won

LLMonAgent -			2024			2025			2026			2027			2028	
LL	IMOHAgeHt	ea	Price	revenue	ea	Price	revenue	ea	Price	revenue	ea	Price	revenue	ea	Price	revenue
	Establishment of local governments	3	50	150	22	50	1,100	100	50	5,000	150	50	7,500	200	50	10,000
	Establishment of a public company	1	400	400	5	400	2,000	20	400	8,000	20	400	8,000	20	400	8,000
public Sector	Government Agencies	3	35	105	22	35	770	100	50	5,000	150	50	7,500	200	50	10,000
	Cloud Infrastructure	1	50	50	22	50	1,100	100	50	5,000	150	50	7,500	200	50	10,000
	Maintenance			0	6	6	36	49	6	294	220	6	1,320	320	6	1,920
	Subtotal			305			3,006			15,264			31,820			39,920
	System Implementation	3	50	150	20	50	1,000	100	50	5,000	100	50	5,000	100	50	5,000
general	System Infrastructure	3	50	105	20	50	700	100	50	5,000	100	50	5,000	100	50	5,000
Sector	Cloud Infrastructure	1	50	50	20	50	1,000	100	50	5,000	100	50	5,000	100	50	5,000
	Maintenance				3	6	18	40	6	240	40	6	240	40	6	240
	Subtotal			305			2,718			15,240			15,240			15,240
	system		610			5,724			30,504	1		47,060)		55,160)



Why you should pay attention to AI assistants

An AI assistant that will help you find, recommend, help, and act on you Humans focus on creative thinking, intuitive judgment, and comprehensive 2 judgment Al chatbots reduce data search effort by 20% 3 and document creation effort by 80% Al assistant eliminates 90% of mundane tasks Expanding from on-premise knowledge search chatbots to business actions 5 500 billion for 5 years, 100% annual growth

LLM Application Service with Naver Cloud For Generative Al-based writing Support

SophiAcademy

Essential Service for Researchers in Korean Philosophy, Korean Literature, and Korean History"

Generative AI-based writing Agent for Korean Studies

Korean Studies

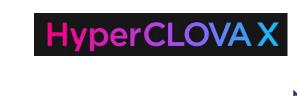
Korean Historical Studies

Korean Philosophical Studies

Korean Language Studies

Korean Literature Studies

Korean Cultural Studies





Dissertation Topic Classification

Citing/searching related topic articles

Related Papers Summary

Thesis correction, writing support

논문 유사도 판별

관련 배경 질의/응답

A service with NAVER Cloud to support research and thesis writing in the field of Korean Studies.

2024~2025 R&D expenditure of 4 billion out of 2.9 billion government contributions



Vision

Establishme nt Scheme

Propulsion System

Business Details

Participatin
g
Institutions
and
Project
Expenses
(2024)

Demand Organizations

LLM-based Korean Studies research activity support service that anyone can easily use

6 GENERATIVE AI APPLICATIONS

Support for Korean Studies Academic Research Activities

service

Dev &

Demo

Data Collection, processing

Generative Al Solutions Ancillary Services

Development and demonstration of Korean Studies academic activity support service: 2 years project period

	Governmen	t subsidy		Institu	tional Contri	bution (Thoເ	ısand Won)		- 1 / 1	
Division	Division (thousand won)		cash		Spot		Subtotal		Total (thousand yen)	
	Budget	%	Budget	%	Budget	%	Budget	%	Budget	%
Vitasoft	870,000	75%	29,000	2.5%	261,000	22.5%	290,000	25%	1,160,000	100%
NAVER Cloud	145,000	50%	21,750	8%	123,250	42%	145,000	50%	290,000	100%
Metrics	435,000	75%	14,500	2.5%	130,500	22.5%	145,000	25%	580,000	100%
Sum total	1,450,000	71.4%	65,250	3.2%	514,750	25.4%	580,000	28.6%	2,030,000	100%

8 institutions, including Hallym Academy of Science, Institute of Korean Studies at Inha University, Korean Language Society, Korean Philosophical Society, and Woori Theological Research Institute



Market Size Analysis

< Overseas: Opening > January 2024

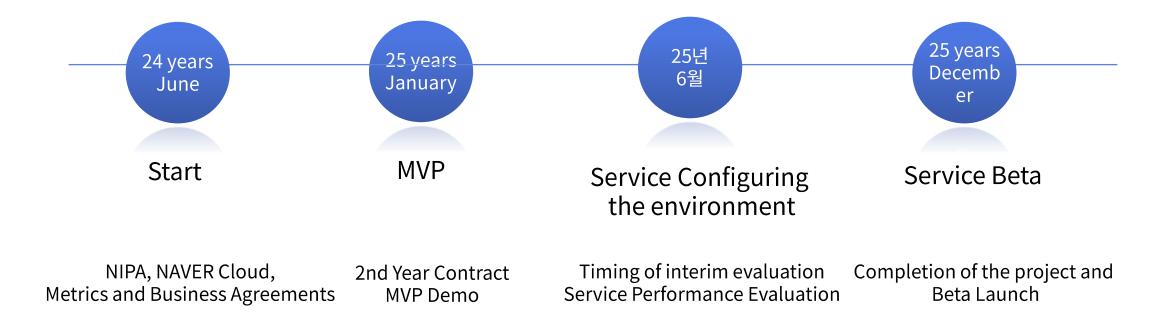
< Domestic: Estimated revenue of paper sea	rch service >
--	---------------

Overseas Service Classification	Estimated sales (years)	Estimated user (year)		
Consensus GPT	Approximately \$2.4 million	3.6 million ~ 6 million		
Scholar GPT	Approximately \$1.44 million	2 million ~ 3.6 million		
Scholar AI	Approximately \$840,000	1.8 million or less		

Domestic Service	Estimated sales
Classification	(2023 estimates)
DBpia	Approx. KRW 13 billion
KISS	Approx. KRW 8.5 billion
Overall Market	Approx. 30 billion
Forecast	won/year

- Globally, the super-large AI-based academic activity support service will appear in early 2024, market formation stage
- ChatGPT-3.5, which is available for free, is very difficult to estimate the market size due to the very high usage rate of Google Gemini
- GPT Store's estimated revenue from the three major academic activity support services (estimated based on the number of visitors and OpenAI revenue distribution)
- Along with Naver Knowledge Search Service, it has emerged as the world's center of AI Korean studies academic support services, and has leapt forward as a very high-value platform.

Promotion Status and Goals





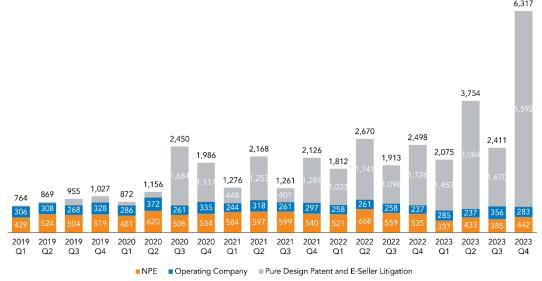
DesignTrac

Al-Based Design Recognition And Image Retrieval Tool

Design Infringement

Infringement of a patented product design is a serious issue and is responsible for increasing litigation in US courts.

- Continued growth of online marketplaces selling low-cost, lookalike products (Amazon, Wish, Temu etc.).
- Companies need to actively search for and protect against infringement of their product designs.
- Product designers also need a method to check their design against existing design patents.





Vitasoft's DesignTrac aims to provide law firms, companies, and designers with tools to positively identify and compare design similarities.

The Problem

With over a million design patents in the US Patent and Trademark Office (USPTO)database, it is nearly impossible to search for and compare with a specific design.

- Trying to match a product with a design patent can only be done manually, taking time and effort
- The USPTO database is difficult to navigate
- Patent information is not linked to a product name or model
- Searches are limited to ambiguous keywords



Who owns the design to this? How do I describe it? What is it?

Item: PlayStation5 DualSense Charging

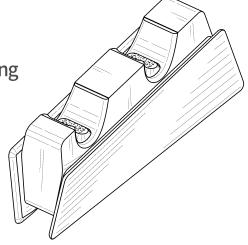
Station

Patent: D1019665

Patent Date: 03/26/2024

Applicant: SONY INTERACTIVE

ENTERTAINMENT



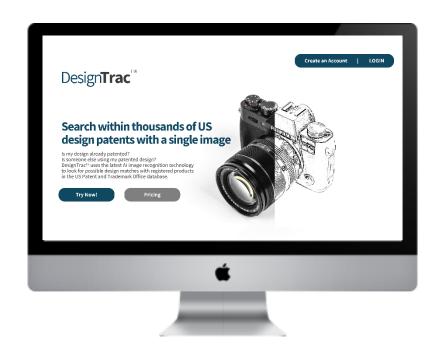
DesignTrac[™] Features

Current

- A custom database of product categories with high levels of infringement, such as consumer electronics, car parts, fashion accessories, etc.
- A fine-tuned AI image recognition and retrieval model
- Three modes: 1 Photo based search, 2 Drawing based search, 3 Photo to Drawing direct comparison

To Be

- Register User product in the database
- User alerts for design applications that might infringe on their design



Proven Technology

2021, Our technology has started on Design Patent Image Retrieval system in the Korea Intellectual Property Office

2022~2023, Our technology is already in use by the Korea Customs Service



2021, Al-based Design Image Search System (for Design Patent Examination)





"Identifies the type of product in the image and searches for other product images with the same or similar appearance, shape, or trend (e.g., the top 20 found among 3 million images)."



Goods Grapher

A mobile based application actively being used by agents to cross check items entering Korea with the Korea **Intellectual Property Rights** Information Service (KIPRIS) database.



Business Model & Revenue Projection

Tiered pay-per-search & subscription model based on client organization size

Service Tier	Tier Price	Target
Pay-per-Search	\$7	Individuals & Small Firms, Small Businesses
Monthly	\$75/M	Individuals & Small Firms, Small Businesses
Premium Monthly	\$750/M	Medium Firms and Corporations
Yearly	\$75,000/Y	Large Firms and Corporations

Year	Service Tier	Tier Price (Year)	Volume	Yearly Revenue
	Pay-per-Search	\$7	1000	\$7000
	Monthly	\$900	100	\$90,000
2024	Premium Monthly	\$9,000	10	\$90,000
	Yearly (Unlimited)	\$75,000	-	-
			Sub-Total	\$187,000
	Pay-per-Search	\$7	100,000	\$700,000
	Monthly	\$900	2,000	\$1,800,000
2025	Premium Monthly	\$9,000	300	\$2,700,000
	Yearly (Unlimited)	\$75,000	1	\$75,000
			Sub-Total	\$5,200,000
	Pay-per-Search	\$7	200,000	\$1,400,000
	Monthly	\$900	5,000	\$4,500,000
2026	Premium Monthly	\$9,000	1,000	\$9,000,000
	Yearly (Unlimited)	\$75,000	3	\$225,000
			Sub-Total	\$14,900,000
			3 Year Total	\$20,287,000

People & Future

Members



Soonki Hong | CEOWith more than 25 years of experience in AI technology development,

He has grown his expertise in the field of IT consulting. He has represented Vitasoft for over 20 years since 2004.



Jae-Yong Lee | Vice president

He has more than 25 years of experience in executive leadership roles in the online gaming and golf simulator industries.

Currently, he is leading the development of Vitasoft's Al application service.



Younghoon Hong | CTO
Majored in electronic engineering
at Sogang University,
He led the development of Netian
services and Afrika TV services.
Currently, he is leading the
development of artificial
intelligence and related
applications centered on
Vitasoft's affiliated research
institute.



Jaeyoon Park | AI R&D Principal Investigator

He majored in aerospace science at KAIST, Korea's top technology research institute.

As the head of Vitasoft's AI R&D development team,
Computer Visioning and LLM-based technologies are applied to the research on the development of chatbot applied AI agents to improve performance.



Olimov Bekzod | AI R&D Principal Researcher

He majored in Economics, Public Administration, and Computer Science (Ph.D.) at the world's leading universities.

He has published more than 10 SCI papers related to machine learning and convolutional neural networks (CNNs).

Currently, he is applying his knowledge of computer vision and generative AI to the development of Vitasoft's video solutions.



Lee Wan-hee | Head of Business Development

Graduated from New Jersey State University
Global-oriented business development professionals
At CJ ENM Content R&D Center Developed a global service.
Young in his prime, he is the backbone of Vitasoft's future business model.

In addition, Young R&D talents ...



category	PY1	PY2	PY3	PY4	PY5
Gross sales	6,938,000	23,802,000	68,910,000	143,460,000	220,790,000
LLMonChat	628,000	5,260,000	34,100,000	47,160,000	55,340,000
Academic Support Services	-	192,000	2,760,000	32,400,000	48,000,000
ToonCake	6,310,000	18,350,000	32,050,000	63,900,000	117,450,000
Cost of Goods Sold	628,000	5,260,000	34,100,000	47,160,000	55,340,000
LLMonChat Cost of Goods Sold	196,000	196,000	196,000	196,000	196,000
Gross Margin	6,695,500	23,559,500	67,452,500	127,810,000	199,595,000
Sales & Management Expenses	4,632,325	8,747,583	12,380,185	17,677,107	25,106,616
Labor	2,164,000	4,122,340	4,544,960	5,201,440	5,819,320
Operating Expenses	13,780	109,110	289,400	680,400	1,103,950
Advertising Expenses	137,800	1,091,110	2,894,000	6,804,000	11,039,500
Outsourcing Service Costs	649,200	1,236,702	1,363,488	1,560,432	1,745,796
Other sales and management expenses (rent, welfare, etc.)	1,667,545	2,188,321	3,288,337	3,430,835	5,398,050
Operating Profit	2,063,175	14,811,917	55,072,315	110,132,893	174,488,384
Net profit (before tax)	2,063,175	14,811,917	55,072,315	110,132,893	174,488,384
Corporate tax	412,635	2,221,788	8,260,847	16,519,934	26,173,258
net profit	1,650,540	12,590,130	46,811,468	93,612,959	148,315,127
Cumulative Net Profit	1,650,540	14,240,669	61,052,137	154,665,096	302,980,223



Thank You