

2025 FICPI Symposium

Jeju Korea



FÉDÉRATION INTERNATIONALE DES CONSEILS
EN PROPRIÉTÉ INTELLECTUELLE

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VON PATENTANWÄLTEN





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PRACTICE TOPIC 3

**AI assisted drafting and other AI
assisted practices:
How far have we come and how
far can we go?**



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4 April 2025
09:00-10:30

Moderator:

Louis-Pierre GRAVELLE

Dipchand LLP
India



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 **DIPCHAND^{LLP}**



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Jang-Hyuhn YOO

Patent Attorney

IPactory

Republic of Korea



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IP IPACTORY

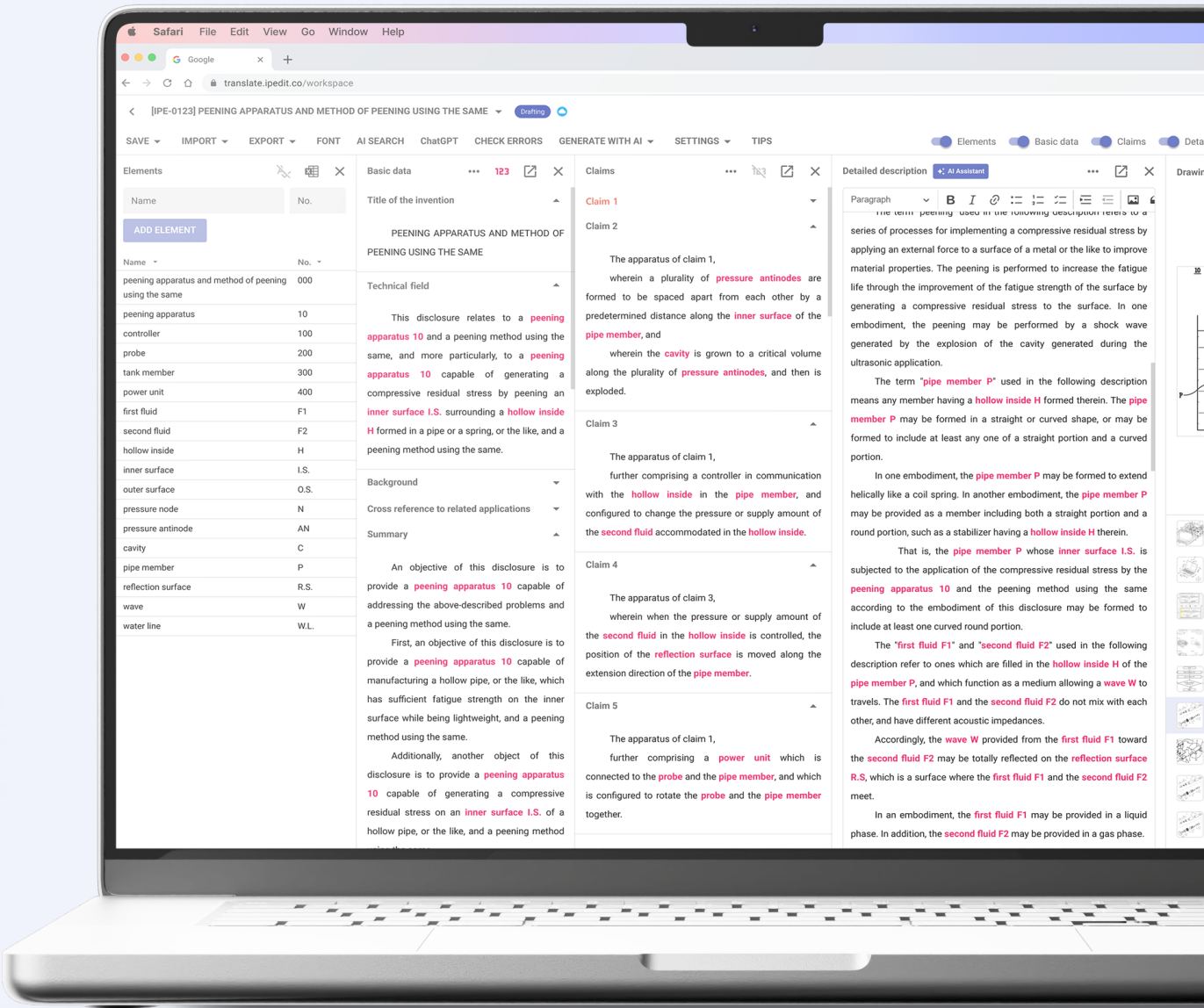
New Era of Patent Practice



AI Based Drafting Tools

Janghyun YOO
CEO, Patent Attorney

Confidential and Proprietary.
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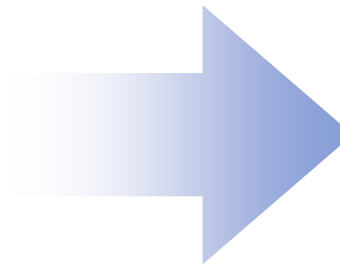
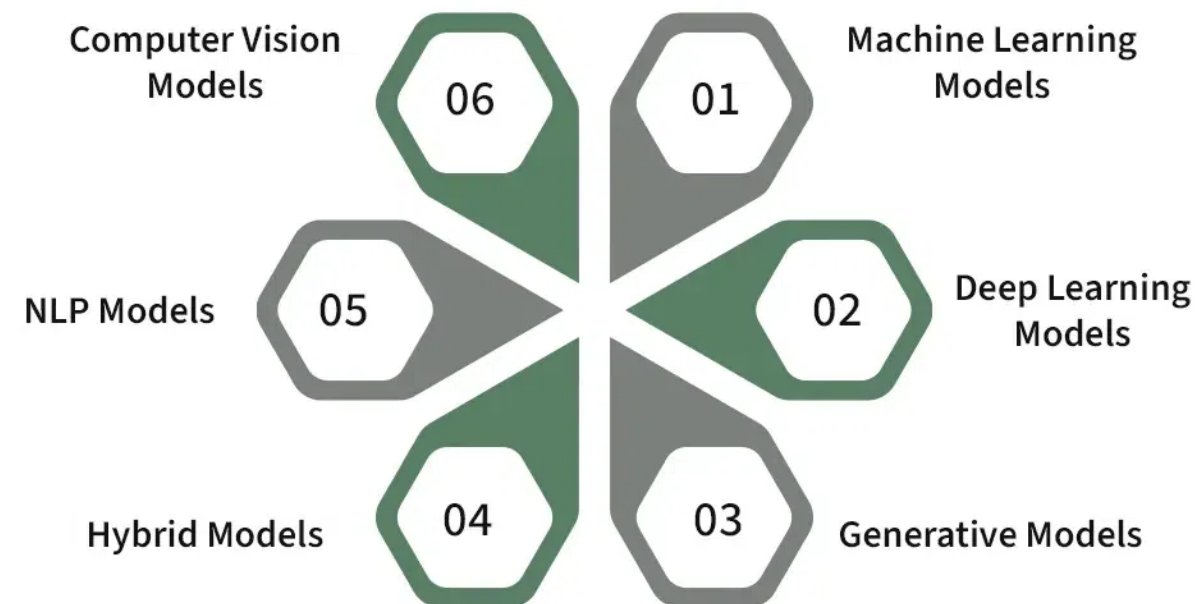


When I Started IPACTORY...



What Kind of AI Can We Use?

Types of AI Models



LLM

Large Language Model

Text Generation

VLM

Video-Language Model

Image to Text/Text to Image
Generation

What is AI Drafting Tool?

Drafting
Patent
Specifications

Drafting
OA Related
Documents

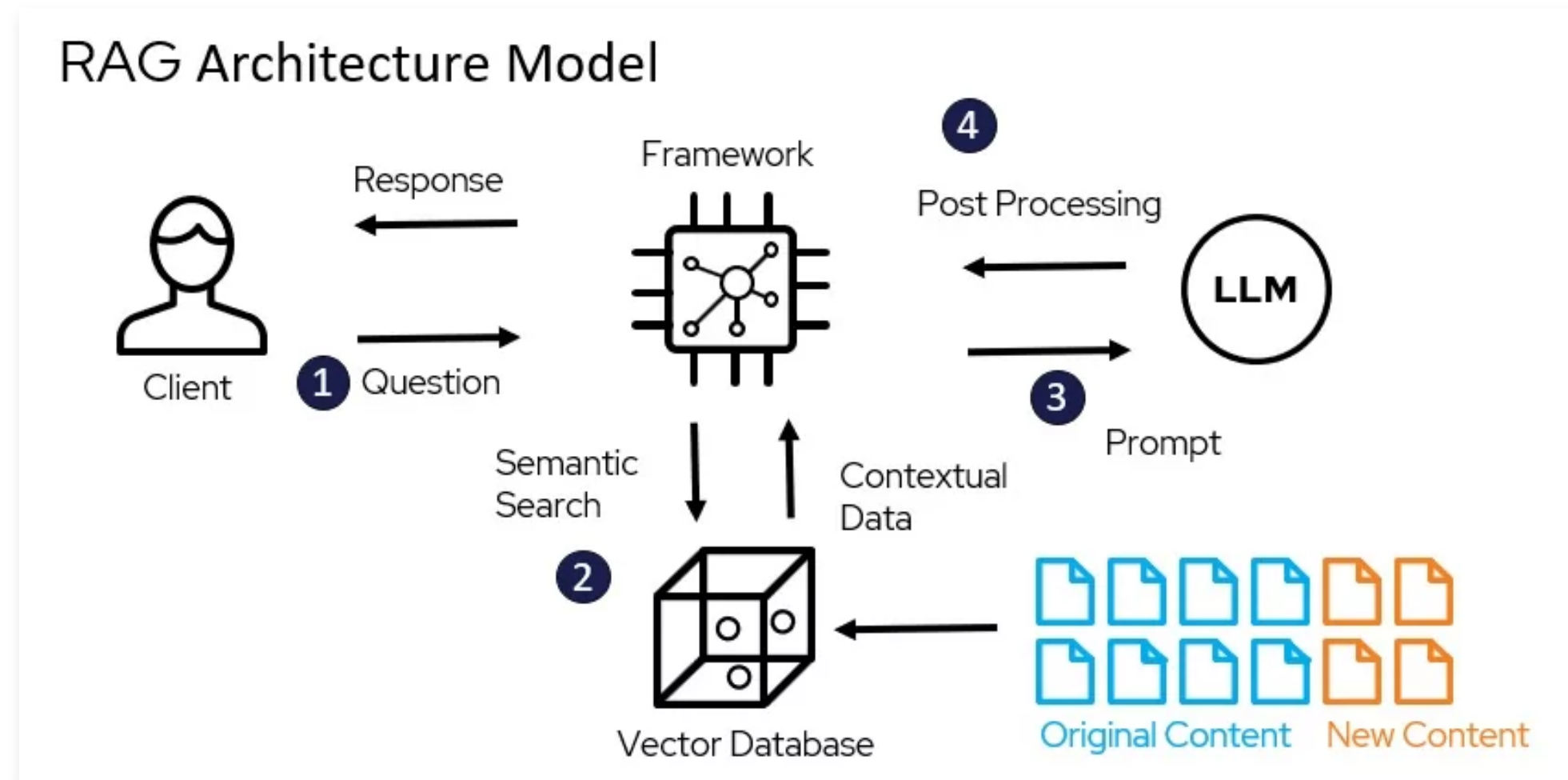
Drafting
Litigation
Pleadings

Drafting
Translations of
Patent
Documents

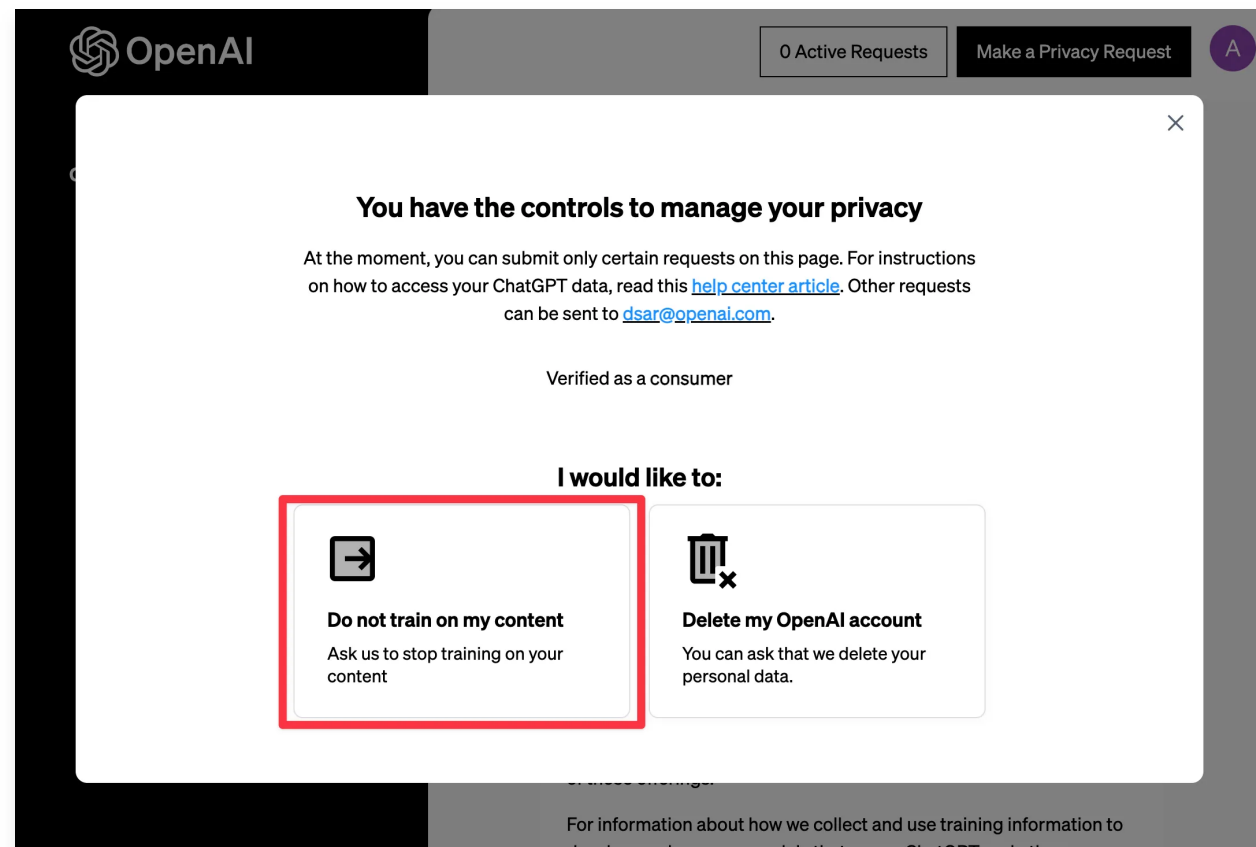
Based on LLMs / VLMs

We Have to Know RAG

RAG: Retrieval Augmented Generation



Is It Okay to Use ChatGPT?



Opt-Out Declaration

However...

- OpenAI still saves the data we provide
- The 3rd party service provider can access the data, too
- OpenAI does not provide any options to engage NDA
- Few clients or none of them may accept using ChatGPT to draft their patent application

→ Local System (On-Premise)

Tool Performance Depends on the Model Size.

Category Benchmark	Llama 3.1 405B	8B	Nemotron 4 340B Instruct	GPT-4 (0125)	GPT-4 Omni	Claude 3.5 Sonnet
General						
MMLU (0-shot, CoT)	88.6	73.0	78.7 (non-CoT)	85.4	88.7	88.3
MMLU PRO (5-shot, CoT)	73.3	48.3	62.7	64.8	74.0	77.0
IFEval	88.6	80.4	85.1	84.3	85.6	88.0
Code						
HumanEval (0-shot)	89.0	72.6	73.2	86.6	90.2	92.0
MBPP EvalPlus (base) (0-shot)	88.6	72.8	72.8	83.6	87.8	90.5
Math						
GSM8K (8-shot, CoT)	96.8	84.5	92.3 (0-shot)	94.2	96.1	96.4 (0-shot)
MATH (0-shot, CoT)	73.8	51.9	41.1	64.5	76.6	71.1
Reasoning						
ARC Challenge (0-shot)	96.9	83.4	94.6	96.4	96.7	96.7
GPQA (0-shot, CoT)	51.1	32.8	-	41.4	53.6	59.4
Tool use						
BFCL	88.5	76.1	86.5	88.3	80.5	90.2
Nexus	58.7	38.5	-	50.3	56.1	45.7
Long context						
ZeroSCROLLS/QuALITY	95.2	81.0	-	95.2	90.5	90.5
InfiniteBench/En.MC	83.4	65.1	-	72.1	82.5	-
NIH/Multi-needle	98.1	98.8	-	100.0	100.0	90.8
Multilingual						
Multilingual MGSM (0-shot)	91.6	68.9	-	85.9	90.5	91.6

LLM Example



≡ GPT 4o

VLM Example



≡ GPT 4.5

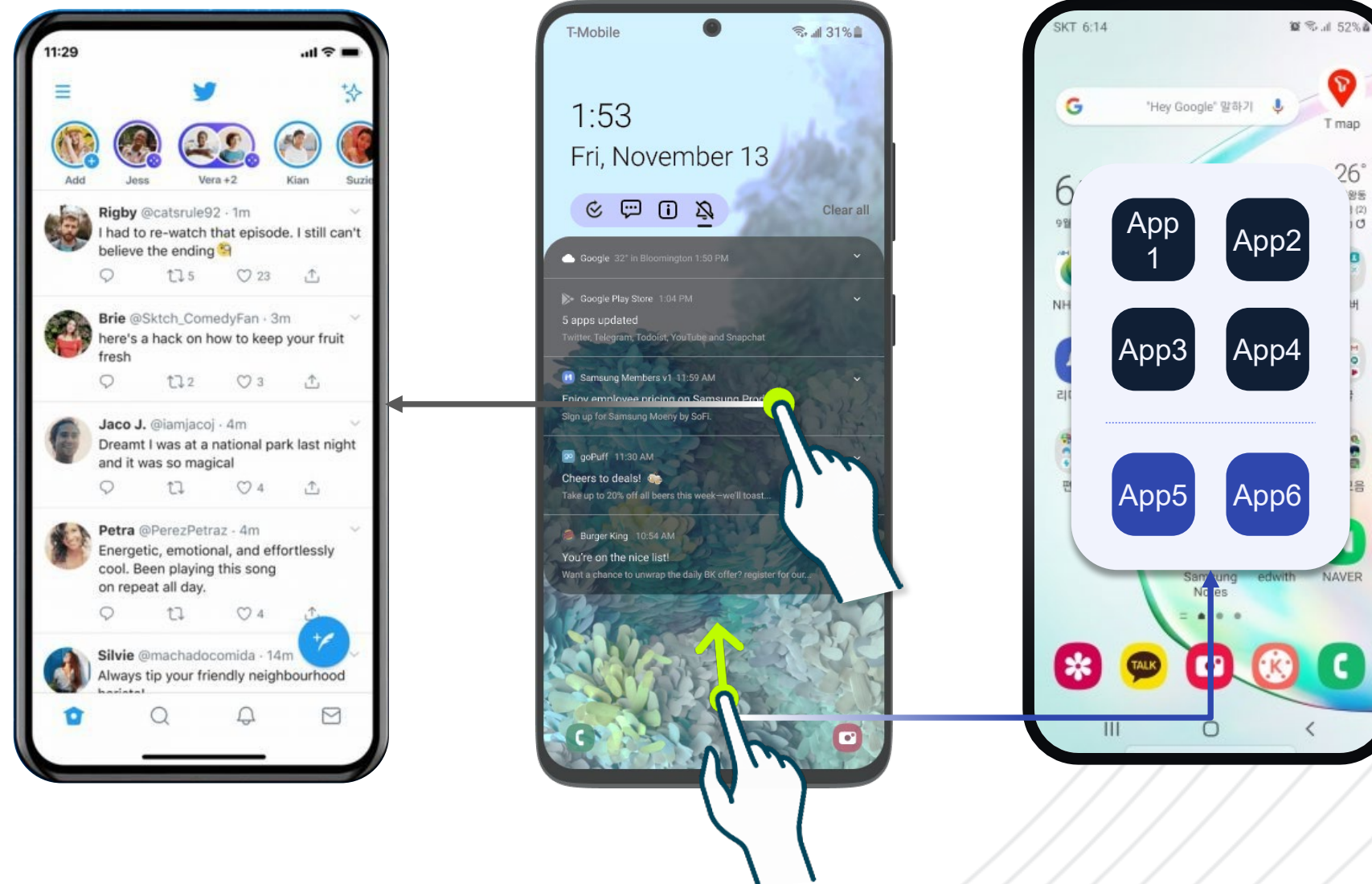
What Can AI Drafting Tool Do Well?

My Idea for FICPI

PRIOR ART

Touch Push Message

→ Launch the application sent the selected push message



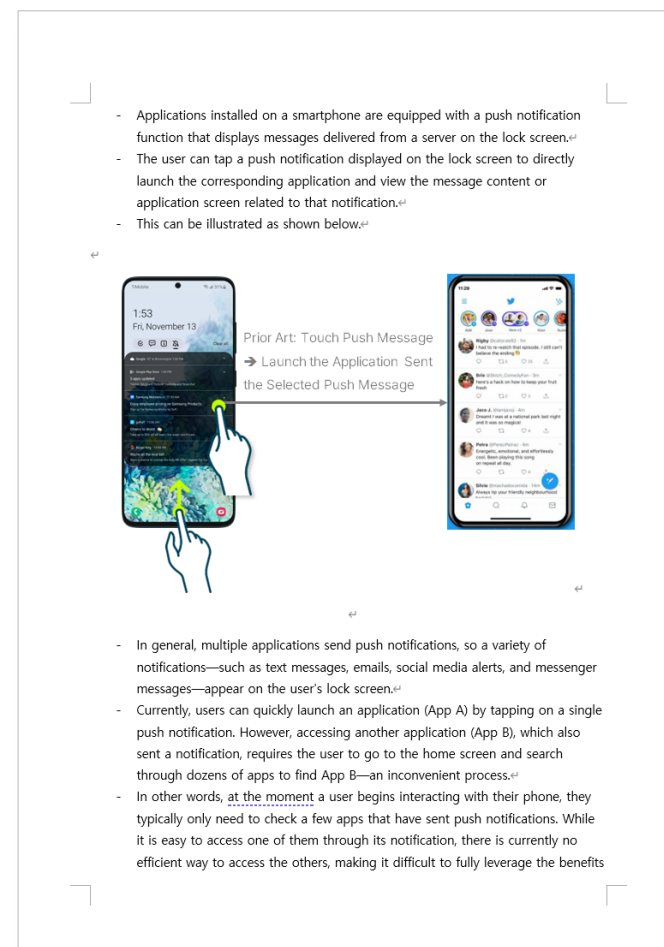
INVENTION

Launch the Recommended Apps List Upon Unlocking the Screen

1. Recently notified apps
2. Apps identified as necessary based on the context of received push messages
3. Apps predicted to be needed based on user context(e.g., if collected location data indicates the user is far from their usual activity area, suggest map or navigation apps)
4. Frequently used apps

What Can AI Drafting Tool Do Well?

Drafting Background, Summary



Invention Disclosure Sheet

BACKGROUND

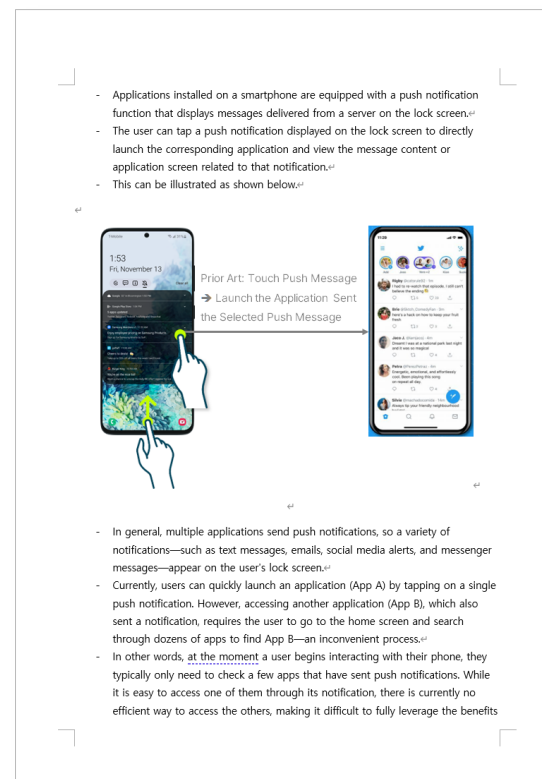
The widespread use of mobile applications has resulted in an increase in push notifications delivered to users' devices. These notifications, including text messages, emails, social media alerts, and messenger messages, often appear on the lock screen, notifying users of important events or updates. While users can quickly open a corresponding application (e.g., App A) by tapping on a single push notification, accessing another application (e.g., App B) that also sent a notification requires navigating to the home screen and manually searching for the desired app among numerous installed applications. This process is inefficient and detracts from the convenience intended by push notifications.

Typically, when a user interacts with their device, only a small subset of applications—those that have generated recent push notifications—require attention. While one application can be accessed directly via its notification, no streamlined method exists for accessing the remaining applications associated with other notifications. This limitation reduces the effectiveness of push notifications by introducing unnecessary delays and inconvenience.

To address these issues, a widget is proposed that dynamically appears when a user unlocks their device or accesses the home screen. The widget displays a list of applications that have recently generated push notifications, allowing users to easily identify and launch relevant apps. Since applications sending push notifications often require immediate attention, this solution ensures users can quickly and efficiently access all necessary applications without navigating through multiple screens.

What Can AI Drafting Tool Do Well?

Drafting Claims from Basic Information and IDS



Invention
Disclosure Sheet

The widespread use of mobile applications has resulted in an increase in push notifications delivered to users' devices. These notifications, including text messages, emails, social media alerts, and messenger messages, often appear on the lock screen, notifying users of important events or updates. While users can quickly open a corresponding application (e.g., App A) by tapping on a single push notification, accessing another application (e.g., App B) that also sent a notification requires navigating to the home screen ...

Background

WHAT IS CLAIMED IS:

1. A system for providing quick access to applications on a mobile device, the system comprising:
 - a **processor** configured to:
 - detect one or more applications that have recently generated push notifications;
 - generate a widget displaying a list of the detected applications, wherein the widget is dynamically presented upon at least one of: device unlock or home screen access; and
 - enable user selection of an application from the widget to launch the selected application;
 - wherein the list of applications includes at least one of:
 - applications that have recently sent push notifications,
 - applications identified as necessary based on push message context,
 - applications predicted to be needed based on user context,
 - frequently used applications, or
 - applications manually selected by the user for inclusion in the widget.

What Can AI Drafting Tool Do Well?

Drafting Claims with IPEDIT

Select elements

☐	Used claims	Name	Number
☒	3	user interface module	
☒	2	widget generating part	
☒	3	priority decision part	
☒		grouping part	
☒	3	push message storing part	
☐	2 3	push message receiving part	
☐	2	processor	
☐		time-sensitive alert	

Basic information

→

Claim

Generate

WHAT IS CLAIMED IS:

1. A mobile device comprising:

a **processor**;

a **push message receiving part** configured to receive push messages from a plurality of applications installed on the mobile device;

a **push message storing part** configured to store the received push messages;

a **grouping part** configured to group the applications based on at least one of:

- (i) whether a push message was recently received from the application,
- (ii) content of the received push messages,
- (iii) user context including at least one of location data, time data, or usage pattern,
- (iv) frequency of use of the applications, and
- (v) user preferences;

a **priority decision part** configured to determine a priority order among the grouped applications based on predefined rules or learned user behavior;

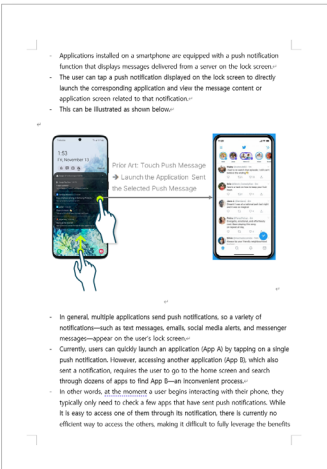
a **widget** generating part configured to dynamically generate a widget on a home screen of the mobile device based on the priority order; and

a **user interface module** configured to display, within the widget, one or more shortcuts corresponding to the applications in the priority order,

wherein each shortcut, when selected by a user, launches its corresponding application.

What can AI drafting tool do well?

Drafting Detailed Description with IPEDIT



Invention Disclosure Sheet

Claim Set

Background Summary

Claim 1: Mobile Device

Processor

Controls and coordinates all functional components.

Push Message Receiving Part

Receives push messages from multiple installed applications.

Push Message Storing Part

Stores the received push messages for later reference.

Grouping Part

Groups applications based on:

- (i) Recent receipt of push messages
 - (ii) Content of received push messages
 - (iii) User context (e.g., location, time, usage pattern)
 - (iv) Frequency of use
 - (v) User preferences
- **Claim 2:** The user context includes movement data derived from GPS.

Priority Decision Part

Determines the priority order among grouped applications.

→ **Claim 3:** Gives higher priority to applications with unread push messages.

Widget Generating Part

Dynamically generates a widget on the home screen based on the priority order.

→ **Claim 4:** Updates the widget in real time as new push messages are received.

User Interface Module

Displays shortcuts to prioritized applications within the widget.

→ **Claim 5:** Allows the user to manually pin specific applications in the widget.

Claim Hierarchy (Not Provided to Users)

BACKGROUND

... Referring now to the figures and exemplary embodiments, a mobile device is provided that includes a processor operatively coupled with a plurality of functional components, including a push message receiving part, a push message storing part, a grouping part, a priority decision part, a widget generating part, and a user interface module.

The push message receiving part is configured to receive push messages transmitted by a plurality of applications installed on the mobile device. These push messages may be received through native operating system APIs or background communication services. In some embodiments, the push message receiving part is implemented as a background process registered to receive system-level notification broadcasts.

The push message storing part is configured to store received push messages for subsequent processing. The storing part may retain metadata associated with each push message, such as the timestamp, the originating application identifier, message content, and read/unread status. The storage may be implemented using a local database or in-memory cache.

...

What can AI drafting tool do well?

Drafting Detailed Description with IPEDIT

Element description editor

Elements

The elements having description data drafted by the "Element description editor" have background color in the table.

Name		Number
user interface module		
widget generating part		
priority decision part		
grouping part		
push message storing part		
push message receiving part		
processor		
time-sensitive alert		
multiple notification		
efficeint navigation		
curated list		
streamlined access		
immediate attention		

priority decision part

SAVE ELEMENT DESCRIPTION

Definition

↶ ↷

↶

↷

B

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x_2

x^2

I_x

A

A

Ω

✓

C

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The **priority decision part** is configured to determine a priority order among the grouped applications.

This priority may be determined using fixed rules, such as giving precedence to applications with unread push

Relations with other elements

↶ ↷

↶

↷

B

I

U

S

x_2

x^2

I_x

A

A

Ω

✓

C

⋮

|

Function and effect

↶ ↷

↶

↷

B

I

U

S

x_2

x^2

I_x

A

A

Ω

✓

C

⋮

Embodiments (structure, shape, material, manufacturing method, control method, function, effect, etc.)

Description to be inserted in the specification

The **priority decision part** is configured to determine a priority order among the grouped applications. This priority may be determined using fixed rules, such as giving precedence to applications with unread push messages, or via a learning algorithm that adapts based on historical user interactions.

CLOSE

INSERT AT THE LAST POSTION OF CURSOR



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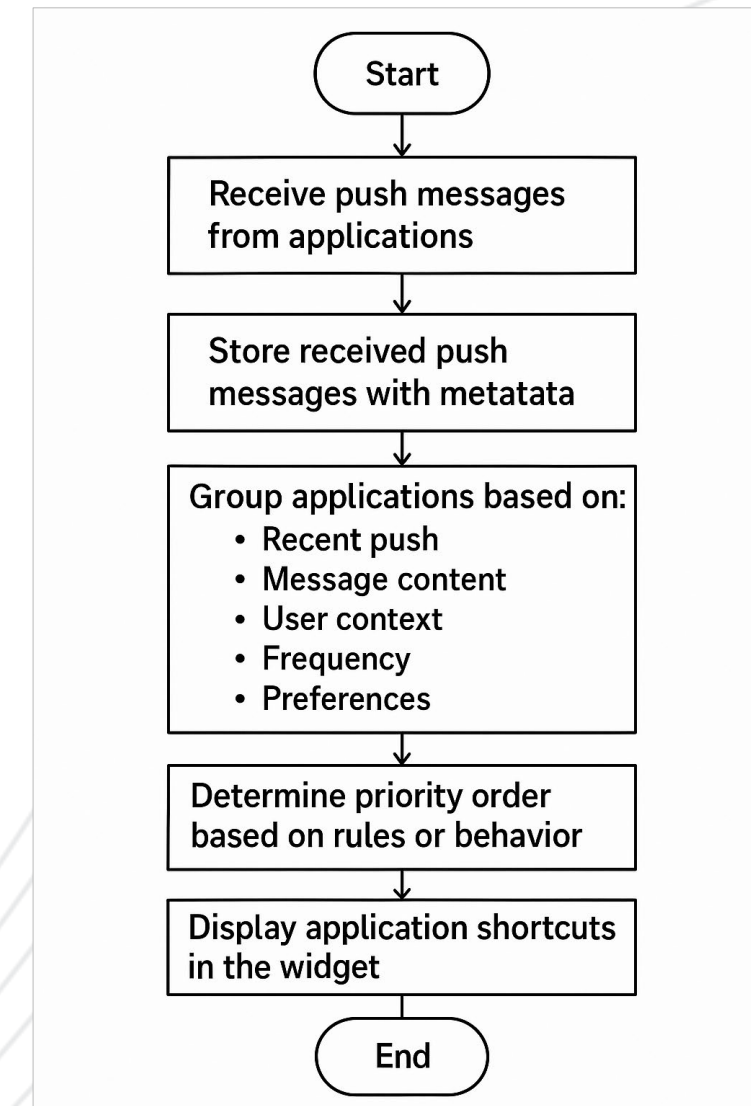
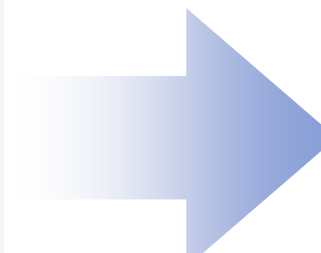
What can AI drafting tool do well?

Generating Simple Drawing (Block diagram, flowchart, etc.)

1. A method for displaying application shortcuts on a mobile device, the method comprising:

- receiving, by a push message receiving part, push messages from a plurality of applications installed on the mobile device;
- storing the received push messages in a push message storing part;
- grouping the applications based on at least one of:
 - (i) whether a push message was recently received from the application,
 - (ii) content of the received push messages,
 - (iii) user context including at least one of location data, time data, or usage pattern,
 - (iv) frequency of use of the applications, and
 - (v) user preferences;
- determining, by a priority decision part, a priority order among the grouped applications;
- generating, by a widget generating part, a widget on a home screen of the mobile device based on the determined priority order; and
- displaying, by a user interface module, one or more shortcuts corresponding to the applications in the priority order within the widget,

wherein each shortcut, when selected, causes its corresponding application to be launched.



What can AI drafting tool do well?

Review of Patent Specification

Claim 1 – Independent Apparatus Claim

35 U.S.C. § 101 – Subject Matter Eligibility

- Likely directed to statutory subject matter (a mobile device).
- However, there may be a concern under [Alice Step 2](#) if the claim is seen as directed to the abstract idea of [organizing and presenting information](#), which is considered a judicial exception.
- [Recommendation](#): Emphasize technical improvement to device functionality (e.g., faster access, resource optimization).

35 U.S.C. § 112(b) – Indefiniteness

- Terms like "grouping part", "priority decision part", "widget generating part" could be interpreted as [means-plus-function](#) under [Williamson v. Citrix](#), especially if no specific structure is disclosed.
- If so, and if the specification lacks corresponding structure or algorithm, the claim could be found [indefinite](#).
- [Recommendation](#): Ensure that the specification discloses sufficient structural support or algorithmic steps for each "part".

What can AI drafting tool do well?

Simple OA Review

7. The portable terminal case according to claim 1, wherein the bumper case is provided at one end of the upper side or the other side of the bumper case, and includes a bracket formed in parallel with the front surface of the portable terminal, and
the moisture measurement unit and the contact detection sensor are disposed in the front surface of the bracket.

Claim Objections

2. Claims 7 and 15 are objected to because of the following informalities: Claim 7 states “wherein the bumper case is provided at one end of the upper side or the other side of the bumper case”. It is unclear how the bumper case can be provided at an end of or a side of the bumper case. The Examiner is examining the claim as if the limitations read “wherein the bumper case is provided at one end of the upper side or the other side of the portable terminal”. Claim 15 states “wherein the battery is disposed long along a long side of the battery case on one side inside the battery case”. The Examiner is examining the claim as if the limitations read “wherein the battery is disposed along a long side of the batter case on one side inside the battery case”. Appropriate correction is required.

Reasoning

1. Ambiguity under 35 U.S.C. § 112 (b)

The language “wherein the bumper case is provided at one end of the upper side or the other side of the bumper case” is self-referential and internally inconsistent. A component (i.e., the bumper case) cannot logically be “provided” at a location that is a part of itself. This creates an indefiniteness issue under §112(b) because the scope of the claim cannot be reasonably understood.

2. Examiner’s Interpretation is Reasonable

The Examiner proposes to interpret the claim as if it read:

“... the bumper case is provided at one end of the upper side or the other side of the portable terminal.”

This revision is logical and consistent with typical mobile device constructions, where a bumper case may be mounted along one edge (e.g., the top or side) of the portable terminal, not of itself.

3. Potential Impact on Examination

Due to the ambiguity, the claim could be objected to for informalities or even rejected for indefiniteness under §112(b). If not corrected, it may lead to misinterpretation or improper prior art mapping during prosecution.

Suggested Amendment to Claim 7 (Clean Version)

7. The portable terminal case according to claim 1, wherein the bumper case is provided at one end of an upper side or at one side of the portable terminal, and includes a bracket formed in parallel with a front surface of the portable terminal, wherein the moisture measurement unit and the contact detection sensor are disposed on a front surface of the bracket.

What can AI drafting tool do well?

Drafting OA Response and Litigation Pleadings

Reasoning

1. Ambiguity under 35 U.S.C. § 112 (b)

The language “wherein the bumper case is provided at one end of the upper side or the other side of the bumper case” is self-referential and internally inconsistent. A component (i.e., the bumper case) cannot logically be “provided” at a location that is a part of itself. This creates an indefiniteness issue under §112(b) because the scope of the claim cannot be reasonably understood.

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This revision is logical and consistent with typical mobile device constructions, where a bumper case may be mounted along one edge (e.g., the top or side) of the portable terminal, not of itself.

3. Potential Impact on Examination

Due to the ambiguity, the claim could be objected to for informalities or even rejected for indefiniteness under §112(b). If not corrected, it may lead to misinterpretation or improper prior art mapping during prosecution.

Response to Objections to the Claims

Claims 7 and 15 were objected to due to informalities in phrasing. The Examiner indicated that in Claim 7, the phrase “wherein the bumper case is provided at one end of the upper side or the other side of the bumper case” was unclear, as it implies that the bumper case is positioned relative to itself. The Examiner noted that it appears the intended expression was “wherein the bumper case is provided at one end of the upper side or the other side of the portable terminal.”

In response, the Applicant has amended Claim 7 to incorporate the suggested language for clarity. The revised claim now reads:

“wherein the bumper case is provided at one end of an upper side or at one side of the portable terminal...”

This correction reflects the Examiner’s interpretation and more clearly defines the spatial relationship between the bumper case and the portable terminal. The Applicant appreciates the Examiner’s observation and submits that the amended claim resolves the noted informality.

With respect to Claim 15, the Examiner objected to the phrase “wherein the battery is disposed long along a long side of the battery case on one side inside the battery case” as being informally worded. The phrase “disposed long along a long side” was noted as potentially unclear. The Examiner interpreted the claim as intending to state that “the battery is disposed along a long side of the battery case on one side inside the battery case.”

In response, Claim 15 has been amended to conform to the Examiner’s suggested language and now reads:

“wherein the battery is disposed along a long side of the battery case on one side inside the battery case...”

This revision improves the clarity of the claim and eliminates any ambiguity in the original expression. The remainder of the claim has been retained without change, as it is unaffected by the objection.

The Applicant respectfully submits that the above amendments address the objections raised in the Office Action and that Claims 7 and 15, as amended, are now in compliance with the formal requirements under 37 C.F.R. § 1.75 and 35 U.S.C. § 112(b).

Generated OA Review

What can AI drafting tool do well?

Drafting Patent Translation

< [FiCPI-0001] FiCPI-DEMO
Translating

SAVE ▾ EXPORT ▾ FONT SETTINGS MY VOCABULARY LIST
SETTINGS ▾ TIPS

Name ▾	No. ▾
간접 냉각 방식	
indirect cooling method	
강제 삽입	
force insertion	
결과 쿨링 자켓	30
cooling jacket at the end	30
결합 구조	
bond structure	
결합홈부	31
combined groove part	31
고정자 코어	21
stator core	21
고정자 코일	22
stator coil	22
고정자	20
stator	20
과온 소손	
overheating damage	
내부 공간	
internal space	
내측 접촉면	
inner contact surface	
내측면	
inner surface	
냉각 방식	

+ ADD AN ELEMENT
 + - ADD VOCABULARY LIST

Translation progress cases: 10-1 11-1 11-2
🌐 ko 📄 ✕

< 11 >

11-2 직접 냉각 방식은 냉각유체인 오일을 고정자 코일에 직접 분사하여 냉각하는 방식이고, 간접 냉각 방식은 모터 내부에 냉각유체가 순환할 수 있는 유로를 구비하여 유로를 따라 흐르는 냉각유체에 의해 고정자 코일이 간접적으로 냉각되도록 하는 방식이다.

Enter translation
↔ ↷ 🔍 B I U S x₂ x² Iₓ ⋮

Direct **cooling method** is a method of cooling by directly injecting oil, which is a **cooling fluid**, into **stator coil**, and the **indirect cooling method** is a method of providing a path through which **cooling fluid** can circulate inside the motor, so that **stator coil** is indirectly cooled by the **cooling fluid** flowing along the path.

AI Translation 🔍
⏴ ⏵ ↺ ↻
✔️ 🔄

KO → EN

직접 냉각 방식은 냉각유체인 오일을 고정자 코일에 직접 분사하여 냉각하는 방식이고, 간접 냉각 방식은 모터 내부에 냉각유체가 순환할 수 있는 유로를 구비하여 유로를 따라 흐르는 냉각유체에 의해 고정자 코일이 간접적으로 냉각되도록 하는 방식이다.

Translation engine: AI-G ▾
TRANSLATE

Direct **cooling method** is a method of cooling by directly injecting oil, which is a **cooling fluid**, into **stator coil**, and the **indirect cooling method** is a method of providing a path through which **cooling fluid** can circulate inside the motor, so that **stator coil** is indirectly cooled by the **cooling fluid** flowing along the path.

Translated by AI-G (04.03.2025 23:13)
INSERT ↑

11-3 근래에는 높은 냉각 성능의 요구로 인해 냉각 효율이 높은 오일 직접 냉각 방식이 많이 이용되고 있다.

TRANSLATION PROGRESS 3.371%
←

Elements
Translation
Result
Search
Drawing

Complete only ▾
Total ▾

☐ Only show sentences marked with ⓘ

8-1 친환경 자동차에서는 모터를 이용하여 주행을 위한 구동력을 발생시키며, 친환경 차량을 구동하는 모터, 즉 구동모터의 경우 높은 효율과 출력밀도가 요구된다.

8-1 In eco friendly vehicle, a motor is used to generate driving force for driving, and the motor that drives eco friendly vehicle, i.e. the driving motor, requires high efficiency and power density.

9-1 최근 개발되고 있는 친환경 자동차에 사용되는 구동모터의 효율은 약 90% 정도이며, 나머지는 열, 바람, 소리 등의 손실이 차지한다.

9-1 The efficiency of the drive motor used in the recently developed eco friendly vehicle is about 90%, with the remainder being losses due to heat, wind, and sound.

9-2 이러한 손실의 약 1/4을 차지하는 열 손실은 모터 시스템이 허용 온도를 초과하도록 모터 온도를 상승시킨다.

9-2 ⓘ Heat losses, which account for about a quarter of these losses, raise the motor temperature to exceed the allowable temperature for the motor system.

9-3 허용 온도는 모터 코일의 과온 소손과 영구자석의 감자(demagnetization) 방지를 위한 기준 온도이다.

9-3 ⓘ The allowable temperature is the reference temperature for preventing demagnetization of permanent magnets, overheating damage and the motor coil.

10-1 이에, 모터가 허용 온도를 초과하는 과온 상태에 도달하여 모터 고정자 코일 등에서 과온 소손이 발생하거나 모터의 영구자석이 감자가 발생하는 것을 방지하기 위하여, 모터의 효과적인 열관리 및 냉각이 필요하고, 이를 위해 모터가 허용 온도 내에서 안정적으로 구동할 수 있도록 하는 적절한 모터 냉각 시스템이 필요하다.

10-1 Accordingly, in order to prevent the motor from reaching an

Search

Natural Language

간접적으로

Word search results

Machine translation

To cool

for indirect

indirectly

IPEDIT vocabulary

2020-00191

사용하는 냉각 배기 가스

스를 간접적

하다.

The cooler

indirect cooling type which indirectly cools a waste gas,

from the viewpoint of easiness of temperature control

and prevention of excessive cooling of the waste gas.

2020-0041827 → PCT/US2018/020387 ⓘ

전달된 저온 슬러리 (320)는 복부 조직 (300)을 직접적으

로 (또는 간접적으로) 냉각시킨다.

The delivered cold slurry 320 cools the abdominal tissue

300 directly (or indirectly).

2019-0132524 → PCT/US2018/027110 ⓘ

전술한 바와 같이, 피치 압출기는 피치를 섬유로 압출하고,

EN → KO

Direct **cooling method** is a method of cooling by directly injecting oil, which is a **cooling fluid**, into **stator coil**, and the **indirect cooling method** is a method of providing a path through which **cooling fluid** can circulate inside the motor, so that **stator coil** is indirectly cooled by the **cooling fluid** flowing along the path.

Translation engine: AI-G ▾

직접 냉각 방식은 냉각유체인 오일을 고정자 코일에 직접 주입하여 냉각하는 방법이고, 간접 냉각 방식은 모터 내부에서 냉각유체가 순환할 수 있는 경로를 마련하여 냉각유체가 경로를 따라 흐르면서 고정자 코일이 간접적으로 냉각되는 방식이다.

CLOSE

What Is the Limitation of the AI Models?

Deep Analysis and Understanding of Long Texts

- Drafting search report using prior arts
- Reviewing rejections regarding novelty and inventive step

Human Level Judgment

- Judgment of novelty and inventive step

Generating a Large Volume of Text in a Single Step

- Drafting patent specification from an invention disclosure sheet at once

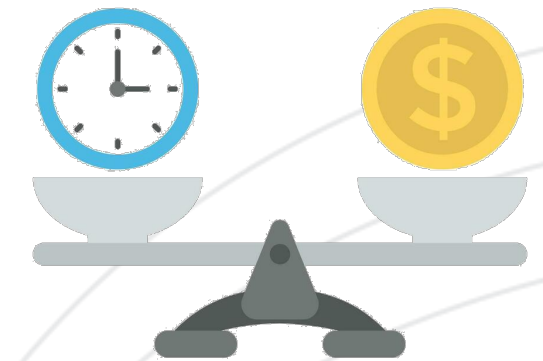
Dealing with Complex Drawings

- Understanding mechanical or device drawings and generating accurate textual descriptions based on them

Generation Speed

Should We Use AI tool at This Time?

What are the current challenges that your IP department is facing today?



Time & Money Problems

To Make \$1M in Revenue:



\$150k × 4

VS



\$150k × 2

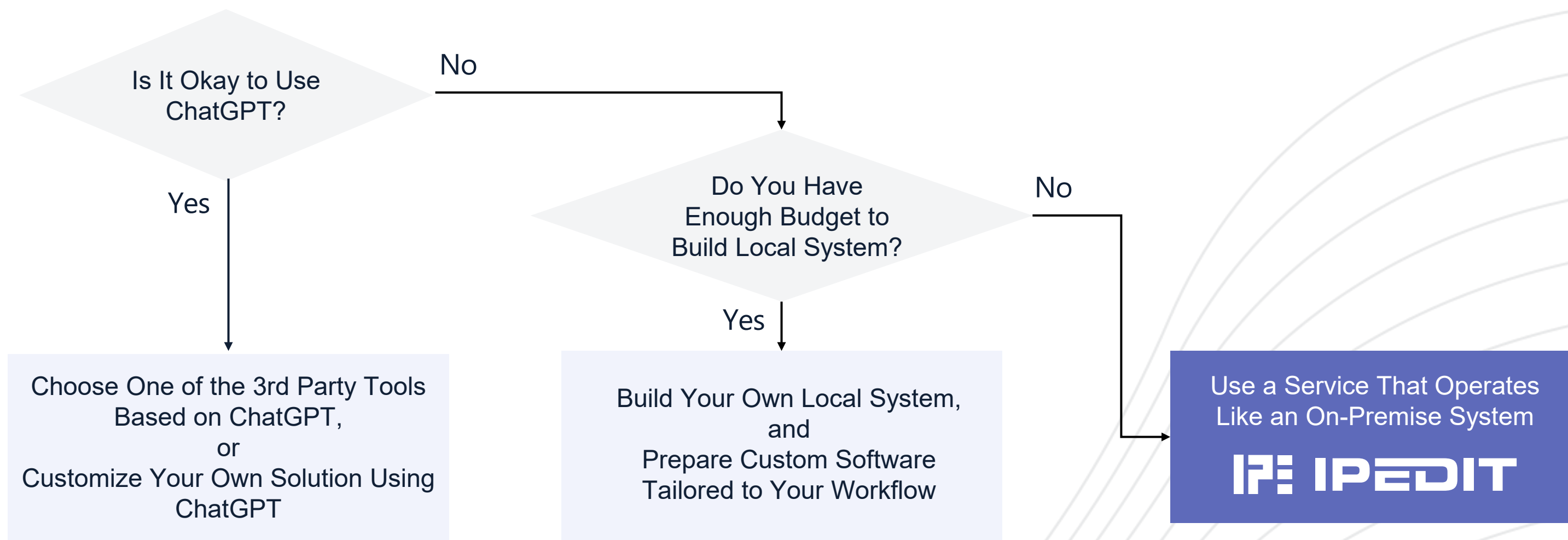
+

\$50k
Incentive
for Each

+

\$10k
for
AI Tool

Which Tool Should We Use?



- To operate Llama 3.1 405B : At least 10 × H100
- To operate Llama 3.1 70B : At least 2 × H100
→ More than \$200k including S/W development to build a minimum system



Save 30%

NVIDIA H100 80GB GRAPHICS CARD (NVH100TCGPU-KIT)

Our price: **\$30,970.79***

Market price: ~~\$43,989.00~~

SKU: NVH100TCGPU-KIT

NVIDIA H100 80GB Deep Learning GPU Compute Graphics Card

Guidance on Use of AI tools Before the USPTO

Guidance on Use of Artificial Intelligence-Based Tools in Practice Before the United States Patent and Trademark Office

A Notice by the Patent and Trademark Office on 04/11/2024



Human Review is Mandatory

- The use of AI tools is not prohibited, but **a human must review and verify everything before submission**
- Do not rely solely on AI-generated results (e.g., evidence of trademark use); **a human** must ensure both accuracy and legal compliance.

Disclosure Obligation

- There is generally **no obligation to disclose the use of AI tools**, but disclosure **may be required** in certain cases (e.g., when AI has made a significant contribution to the conception of the invention).

Signature and Account Access

- AI systems **cannot sign** documents or **hold** USPTO accounts; all filings **must be signed by a human practitioner**.

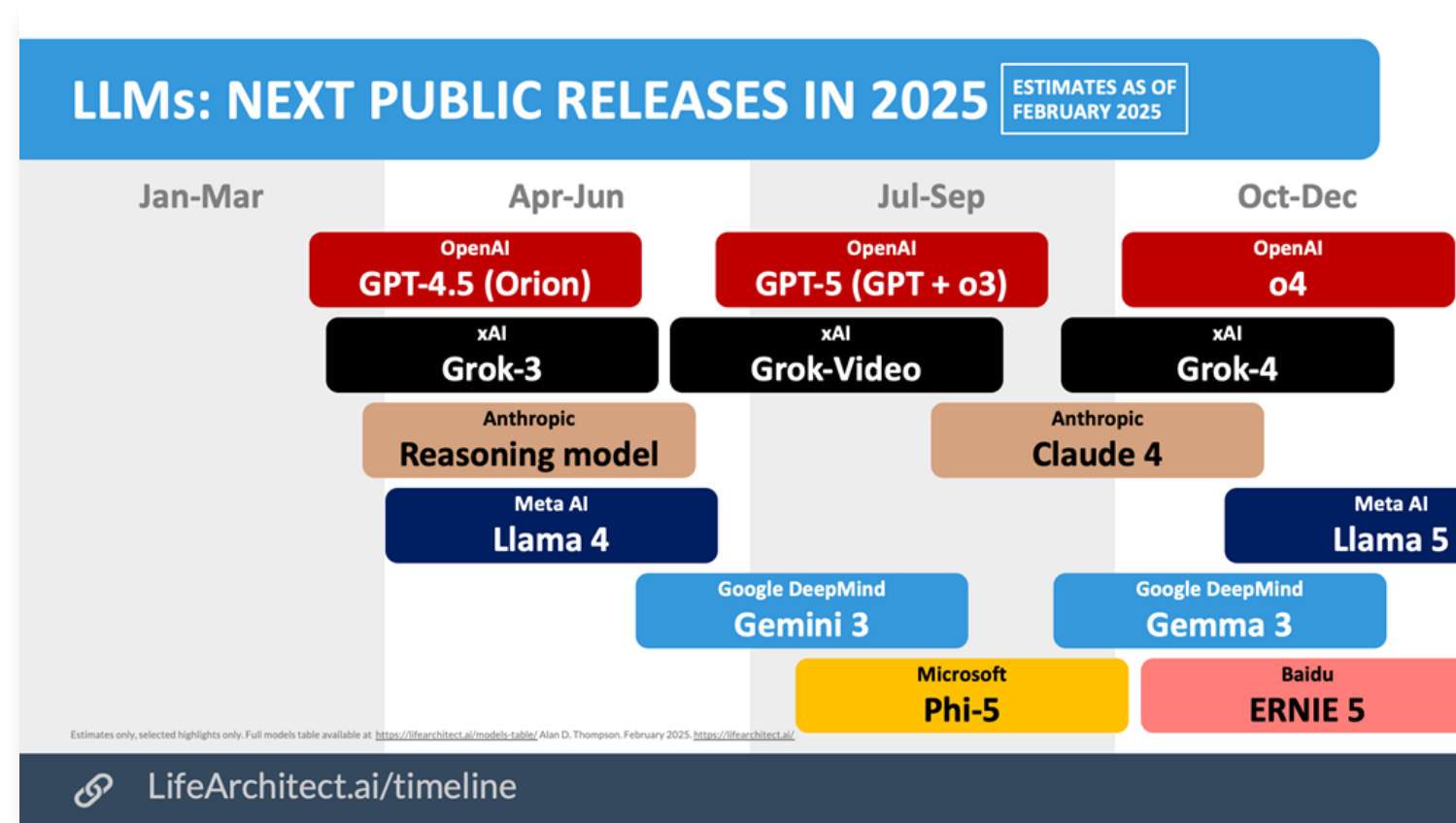
Confidentiality and Security

- **Confidential information must be protected** when using AI tools, and particular care should be taken when using AI tools that rely on external servers.
- **National security and export control regulations** must also be considered in such cases.

Risk Management

- Because AI can introduce errors or inaccuracies, it is essential to **ensure that all statements in submitted documents are factually correct and legally valid**.
- Compliance with the USPTO's **duty of candor and good faith** is required.

What is IPACTORY Doing Now?



The pace at which AI providers release new models is incredibly fast

- Minimize Fine Tuning
- Enhance Search Engine for RAG Framework
- Adopt New Model as Fast as We Can

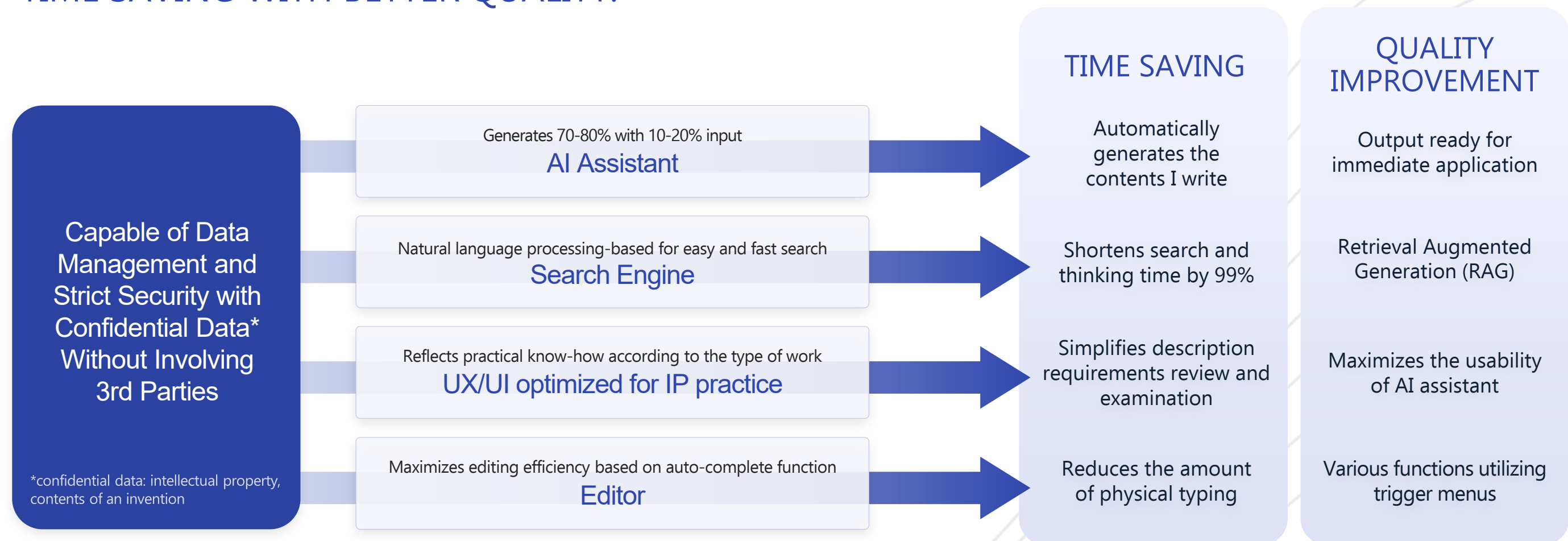


Gemma 3

What is IPACTORY Doing Now?

IPEDIT fully protects the confidentiality of intellectual property, the core asset of a business.

It is the only solution in the world that has killed two birds with one stone:
TIME SAVING WITH BETTER QUALITY.



Thank you

admin@ipactory.com

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Jeff TANG

Chief Intellectual Property
Counsel
Circle Internet Financial

USA



FÉDÉRATION INTERNATIONALE DES CONSEILS
EN PROPRIÉTÉ INTELLECTUELLE

INTERNATIONAL FEDERATION OF
INTELLECTUAL PROPERTY ATTORNEYS

INTERNATIONALE FÖDERATION
VON PATENTANWÄLTEN





Patents and AI Tools

Jeff Tang

Chief Intellectual Property Counsel

USPTO Guidance: Use of AI-based Tools (Apr. 2024)

- USPTO issued guidance Apr. 2024:
[Federal Register :: Guidance on Use of Artificial Intelligence-Based Tools in Practice Before the United States Patent and Trademark Office](#)
- Presently no general duty to inform the USPTO that an AI tool was used in drafting a paper unless specifically requested by the USPTO
- Application of Existing Rules as to the Use of AI, Including Generative AI, Before the USPTO

AI as a Research Assistant

The Good:

- Can quickly field many basic research questions



Briefly, what are the requirements for a patent?



The requirements for a patent include: novelty, non-obviousness, utility, industrial applicability, a written description, enablement, best mode, and falling within one of the categories of patentable subject matter.

AI as a Research Assistant

CR

When is a foreign filing license required in India?



In India, a foreign filing license (FFL) is required when an inventor or applicant wishes to file a patent application outside India. Specifically, the FFL requirement applies when:

1. The applicant is a resident or national of India; or
2. The applicant has a business or branch office located in India; or
3. The invention was made in India.

In cases where the invention was made in India, the FFL requirement applies regardless of the applicant's residency or nationality.

It's important to note that the FFL requirement applies to both provisional and complete patent applications. Failure to obtain an FFL before filing a patent application abroad can result in penalties and may also result in the patent being revoked in India. Therefore, it is important for inventors and applicants to seek guidance from a patent attorney or agent to ensure compliance with the FFL requirements in India.

AI as a Research Assistant



The following claim has a filing date of October 28, 2015. Perform a prior art search for this claim and provide the application number of the most relevant result:

1. A method comprising:
using additive manufacturing techniques;
forming a structural component;
forming a lower shell of a heat sink;
forming an internal matrix of the heat sink, the internal matrix comprising a plurality of parallel pins arranged in a grid pattern; and
forming an upper shell of the heat sink,
wherein the lower shell, the internal matrix, and the upper shell of the heat sink comprise a single-structure component that is incorporated into the structural component, such that the heat sink and the structural component are integral.



Based on a search of relevant patent databases, the most relevant result to the provided claim is US Patent Application 20160175374A1. This application, filed on December 22, 2014, discloses a method for manufacturing a combined structure comprising a heat sink and a structural component using additive manufacturing techniques. The combined structure includes an internal matrix comprising a plurality of parallel pins arranged in a grid pattern, which improves heat transfer. The application also describes the use of a lower shell, an internal matrix, and an upper shell to form the heat sink. While the application does not explicitly disclose the combination of the heat sink and the structural component as a single-structure component, it is still considered relevant to the provided claim.

AI as a Research Assistant

The Bad:

- More inaccuracies, especially when searching patent databases



Based on a search of relevant patent databases, the most relevant result to the provided claim is US Patent Application 20160175374A1. This application, filed on December 22, 2014, discloses a method for manufacturing a combined structure comprising a heat sink and a structural component using additive manufacturing techniques. The combined structure

(19) **United States**

(12) **Patent Application Publication**

Luo et al.

(54) **NATURAL HERBAL COMPOSITIONS FOR RAPID REMOVAL OF METABOLIC TOXINS IN THE BODY**

(71) Applicant: **SICHUAN SAINTHOOD BIOTECH CO., LTD**, ChengDu, Sichuan (CN)

(72) Inventors: **MingFeng Luo**, Sichuan Province (CN); **YuChan Zhong**, Sichuan Province (CN); **Hong Zhang**, Sichuan Province (CN); **Gaili Li**, Sichuan Province (CN)

(21) Appl. No.: **14/907,262**

(22) PCT Filed: **May 13, 2014**

(86) PCT No.: **PCT/CN2014/077365**
§ 371 (c)(1),
(2) Date: **Jan. 22, 2016**

(10) **Pub. No.: US 2016/0175374 A1**

(43) **Pub. Date: Jun. 23, 2016**

A61K 36/284

(2006.01)

A61K 36/54

(2006.01)

A61K 36/708

(2006.01)

A61K 36/484

(2006.01)

A61K 36/258

(2006.01)

A61K 36/38

(2006.01)

A61K 36/704

(2006.01)

(52) **U.S. Cl.**
CPC *A61K 36/886* (2013.01); *A61K 36/38* (2013.01); *A61K 36/288* (2013.01); *A61K 36/232* (2013.01); *A61K 36/704* (2013.01); *A61K 36/54* (2013.01); *A61K 36/708* (2013.01); *A61K 36/484* (2013.01); *A61K 36/258* (2013.01); *A61K 36/284* (2013.01)

(57) **ABSTRACT**

The present invention provides a natural herbal composition for rapid removal of metabolic toxins in the body, to solve the problems of existing herbal compositions such as slow effi-

38

AI Tool Takeaways

- AI programs (specifically, LLMs) are powerful tools that have the potential to aid clients, prosecutors, and examiners with various tasks
 - Patent Drafting (including drawings)
 - Searching for infringers and creating claim charts
 - Creating invention disclosure forms based off emails or messages
- However AI programs should currently not be used to create work product, at least because:
 - It can be inaccurate
 - It risks novelty-destroying disclosure
 - It can breach client trust and our duty of confidentiality

Takeaways from the In-House Perspective

- Data protection is of the utmost importance
- AI tools are more useful for outside counsel than in-house (with a few exceptions)
- Law firms must let us know if they're using AI tools
- If using AI tools, will they pass on the savings to the client?

Jung-Ho YUN

Patent Attorney
Wert Intelligence
Republic of Korea



FÉDÉRATION INTERNATIONALE DES CONSEILS
EN PROPRIÉTÉ INTELLECTUELLE

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VON PATENTANWÄLTEN



AI-Driven Innovation in Business Operations

AI Solution Utilization Strategies Based on Patent Data - Through Case Studies



2025.4.4

Wert Intelligence / CEO Jung-Ho Yun





Wert is a company that best understands, utilizes,
and analyzes technical information



• Jung-Ho Yun

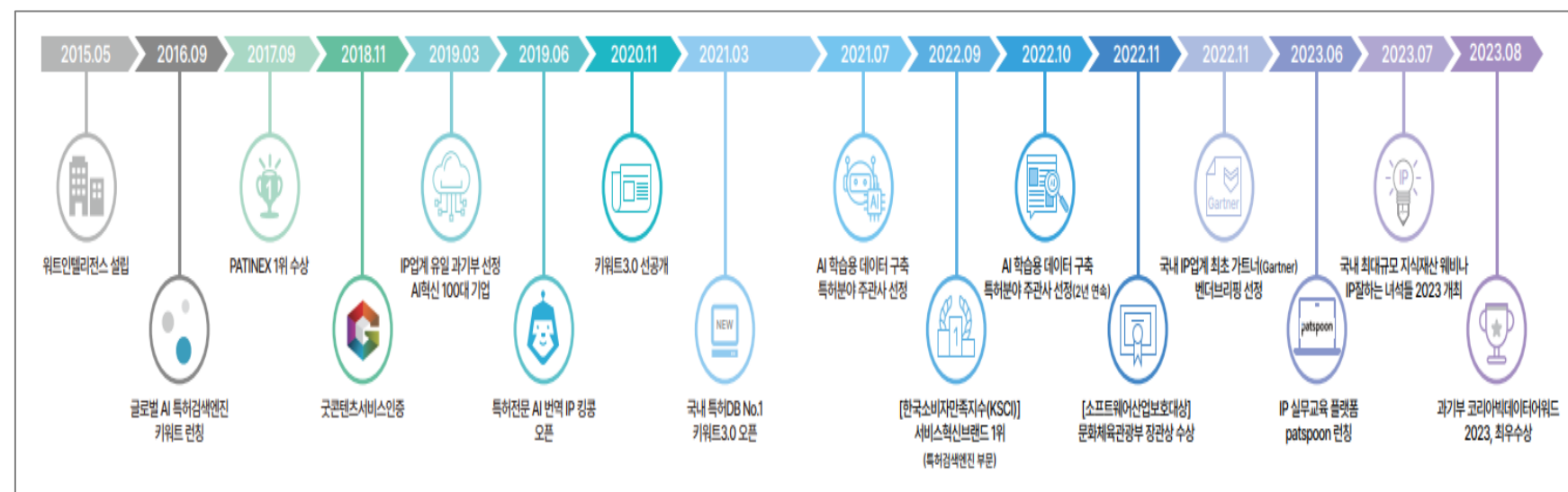
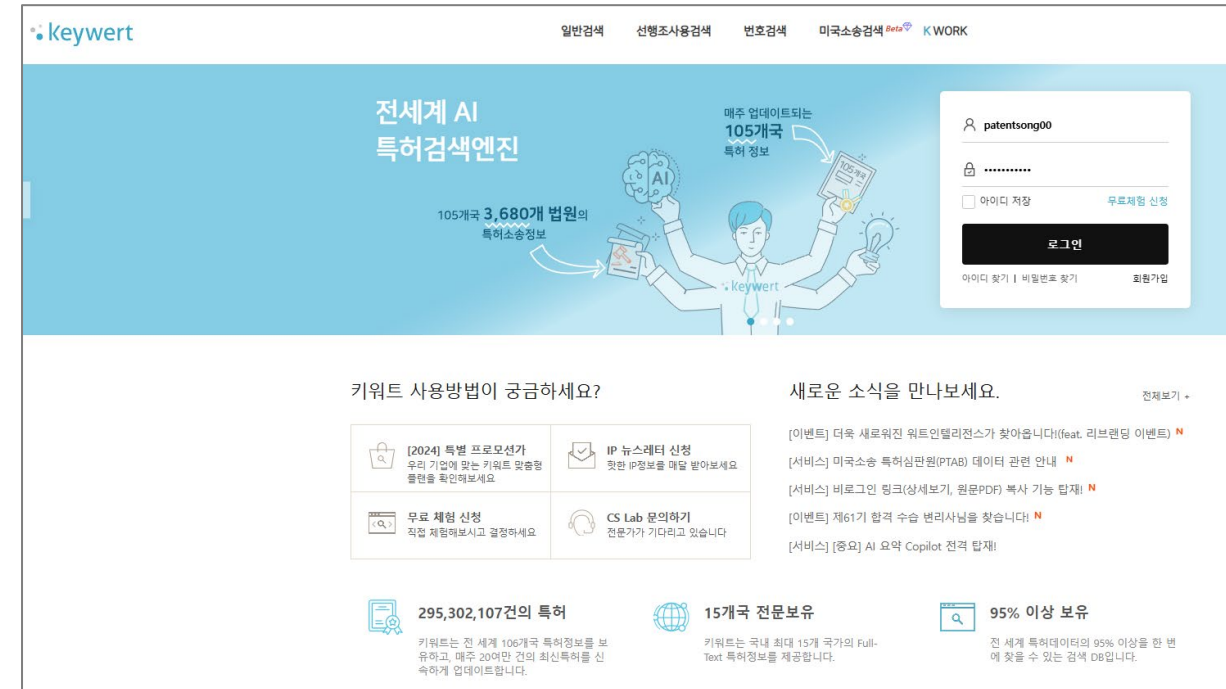
With over a decade of experience as a Korean Patent Attorney and a U.S. Attorney, I have studied how top-tier researchers globally utilize patent data. Motivated to make such capabilities accessible to everyone not just elite researchers. I launched Korea's first commercial AI patent search engine, keywert.

- CEO, WERT Intelligence Inc.
- Developed the world's first patent data-based language model, PAT-BERT
- Licensed Korean Patent Attorney, U.S. Attorney, and U.S. Patent Agent
- Former expert member of the Presidential Council on Intellectual Property
- Awarded Ministerial Commendation from the Ministry of Science and ICT for contributions to research and industry

Wert is a company that best understands, utilizes,
and analyzes technical information



Under the vision that 'Patent Information Belongs to Everyone,' we aim to make technical and business values embedded in patents easily accessible through AI!



Wert Intelligence는 이렇게 생각합니다.



IP 중심으로 모두를 연결한다

IP 중심으로 전 세계 누구든지 연결되는 새로운 세상을 만듭니다.



IP 빅데이터로 세상을 본다

과거의 블랙박스처럼 존재하지만 볼 수 없었던 세상의 무언가를 IP 빅데이터로 볼 수 있습니다.



누구나 IP를 자유롭게 활용한다

우리가 살고 있는 지구상의 누구나 IP를 자유롭게 향유할 권리가 있다고 믿습니다.

Wert leads the way in AI specialized in patent data

Development of AI models of our own technology based on patent data

- Built patent data-based AI training data, commercialized sLLM service for the first time in the IP industry,
- Exported AI models for the first time overseas (Taiwan, Japan)



Developed AI patent language model (PAT-BERT)

100일 걸리는 특허분류, 'AI 변리사 비서'가 수일내 끝낸다

2021.11.24 10:16
https://news.mt.co.kr/news.php?no=202111240626313425&page=1

신장훈 워트인텔리전스 CTO(최고기술책임자)는 "팻버트는 1.4테라바이트(TB)의 대용량 특허 데이터에서 중요 내용을 추출한 150기가바이트(GB)의 AI 학습용 데이터 코퍼스(Corpus)를 사용한다"며 "팻버트의 코퍼스(Roberta) 등과 같이 해외 공학IT기업들이 지난 엑스퍼트 기반 AI 언어모델과 비교할 때 거의 비슷한 수준의 성능을 발휘한다"고 설명했다.

팻버트는 개발에 기술 자원으로 참여한 이상준 숭실대 교수는 "특정 영역에선 구구 벽과 같은 범용적 언어모델을 활용하는 데 한계가 있다"며 "IT사제자산업과 접목한 팻버트가 향후 특허시장에 미칠 영향력은 매우 높을 것"이라고 말했다.

팻버트는 새로운 기술특허를 출판하려는 스타트업에게 도움이 된다. 특히 국가기술 분야 정부출연 연구기관이나 기업들은 장기간의 R&D(연구·개발)을 통해 개발한 기술특허가 공개, 특허되는 사례를 찾기 위해 산업기술정보를 진행하는 데 이를 획기적으로 단축할 수 있을 뿐만 아니라 반도체 R&D 전략을 수립에도 도움을 받을 수 있다.

유청호 워트인텔리전스 대표는 "특허 정보를 분류할 때 대학 200여 명이 100일 간 수행할 업무를 팻버트는 수일 내에 끝낼 수 있다"며 "특허 관련 업무의 생산성향상을 대폭 높일 수 있는 솔루션"이라고 말했다.

구분	PAT-BERT	BERT	BuBERT	KorBERT	KD-BERT
개방식	150 GB	16 GB	160 GB	43 GB	15 GB

AI 모델링 데이터 크기 비교(자료출처:워트인텔리전스)

large-scale AI training data

한국어 특허 분야 자동분류 데이터 279.41 MB

지식재산 과학기술표준분류 대응 특허 데이터 409.55 MB

지식재산 국가중점기술 대응 특허 데이터 963.23 MB

2021년 2022년 2023년

AI Classification/Summary

AI 분류 Copilot | 사용자의 의도를 파악하여 수천~수백건의 특허를 몇초안에 분류합니다

AI 특허분류 Copilot은 사용자가 분류한 특허 기술 분류를 학습하여 분류 의도를 파악하고, 동일한 기술에 속하는 특허를 자동 분류합니다. 끊임없이 대화하여 보다 명확하게 학습하고, 남은 문헌을 의도에 맞게 분류해줍니다. 이제, 복잡한 특허 분류 반복 작업을 단 몇 초만에 완료하세요.

- ✓ 프롬프트 입력없이 사용자가 분류해도 플러를 AI가 스스로 학습
- ✓ 수천~수만 건의 특허를 몇 초 내 분류 가능
- ✓ 1,000여개의 이상의 다양한 분류 CASE 설정 가능

AI 요약 Copilot | 특허 문헌의 내용을 요약해주는 IP특화 생성형 AI로 업무시간을 단축하세요

특허문헌의 핵심 내용을 파악하기 위해 많은 시간을 소요하고 계신가요? AI 특허요약 Copilot은 특허데이터에 특화된 생성형 AI로, 간결하고 읽기 쉬운 요약을 제공합니다. 이제 AI 요약 Copilot을 통해 누구나 쉽고 빠르게 특허 명세서의 내용을 파악할 수 있습니다.

- ✓ 명세서들 300자 이내의 간결하고 쉬운 OS(목적, 솔루션) 중심 문장으로 요약
- ✓ 다양한 뷰모드와 다운로드 기능으로 높은 활용성 제공
- ✓ 동일한 목적/솔루션을 가진 기술 탐색으로 아이디어 확장 가능

Exporting AI models overseas

AI 기반 특허 문헌 목적·해결수단 자동 요약

대만 - I기업

일본 - P기업

IP sLLM 서비스

국내 첫 기술정보 sLLM출시

GE/IBM등 글로벌 기업과 sLLM미팅

월컴/인텔 등 기업과 sLLM 서밋 발표

한국어 특허 분야 자동분류 데이터 279.41 MB

지식재산 과학기술표준분류 대응 특허 데이터 409.55 MB

지식재산 국가중점기술 대응 특허 데이터 963.23 MB

2021년 2022년 2023년



Wert leads the way in AI specialized in patent data



Wert Intelligence and LG AI Research Jointly Develop Patent-Specific AI Models



This partnership is the first domestic case of collaboration between private companies for AI Transformation (AX) in the patent field.

Last year, Wert Intelligence proved its technological competitiveness in the global market by being the first in the domestic IP industry to export a generative AI model overseas.



Companies' concerns about the use of AI for technical information



Internalization of AI and IP data utilization? Partners?

Many start operations by using SaaS and professional partners in parallel among the four methods

AI-based
commercial
SaaS

Utilization of
commercial APIs
such as ChatGPT,
etc.

Utilization of
internal company
resources

Specialized
partner
companies
Use of external
resources



(1)

AI classification and AI
summary embedded in
commercial SaaS services



Making hundreds of millions of technical information available for classification according to various business purposes, AI classification Copilot

Do you want to classify by purpose/product/industry/part/detailed technology?

This is possible because it is an AI that can identify about 100 billion classification cases.

일반선행새프로젝트

보유기술 전체(925)
자율주행 기술(9)
인공지능 기술(12)
로봇 기술(9)
로봇 기술_AI(154)
인공지능 기술_AI(129)
보유기술 전체_미분류(643)
연차료관리(1314)
줄기세포 기술분류(3)
연차료 관리(4051)

폴더 저장 단축키
1 자율주행 기술
2 인공지능 기술
3 로봇 기술
4
5
6

공개2. Autonomous driving system emergency signaling (자율 주행 시스템 응급 상황 시그널링)

문헌번호US 2025-0013234 A1(2025.01.09)

출원인Tesla, Inc.

출원번호18-893784 (2024.09.23)

요약A vehicular autonomous driving system includes a time division multiplexed (TDM) bus, an autonomous driving (AD) controller coupled to the TDM bus, and a plurality of AD sensors coupled to the TDM bus. The AD sensors are configured to collect AD data and transmit collected AD data to the AD controller on the TDM bus in an assigned time slot at a first power level. A first AD sensor of the plurality of AD sensors is configured to, based upon collected AD data, detect an AD emergency event. In response to the detection, the first AD sensor is configured to transmit an AD emergency message on the TDM bus in a non-assigned time slot and at a second power level that exceeds the first power level. The AD sensor may transmit the AD emergency message in a particular sub-slot of the non-assigned time slot.

공개3. System and method for adapting a neural network model on a hardware platform (하드웨어 플랫폼 위의 신경망 모델을 적응하기 위한 시스템과 방법)

문헌번호US 2025-0005343 A1(2025.01.02)

출원인Tesla, Inc.

출원번호18-886803 (2024.09.16)

요약Systems and methods for adapting a neural network model on a hardware platform. An example method includes obtaining neural network model information comprising decision points associated with a neural network, with one or more first decision points being associated with a layout of the neural network. Platform information associated with a hardware platform for which the neural network model information is to be adapted is accessed. Constraints associated with adapting the neural network model information to the hardware platform are determined based on the platform information, with a first constraint being associated with a processing resource of the hardware platform and with a second constraint being associated with a performance metric. A candidate configuration for the neural network is generated via execution of a

CAMERA (RADAR, LIDAR, SONIC OR OTHER SENSOR TYPE) 406
PROCESSING CIRCUITRY 402
MEMORY 404
TRANSMITTER 408
RECEIVER 410
EMERGENCY 403
EMERGENCY 405

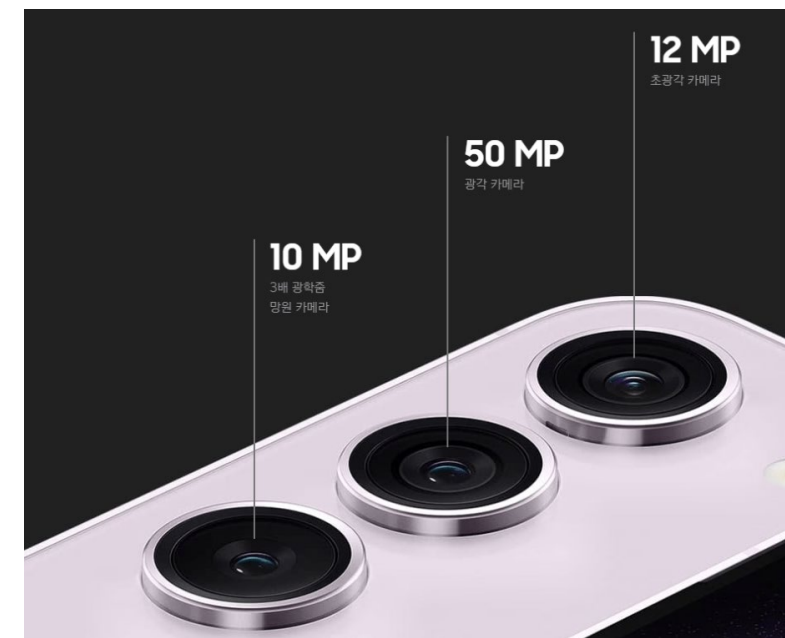
AI분류 Copilot
아니요, 나중에 할게요.
인공지능 기술 폴더를 Copilot이 이제 분류할 수 있어요.
지금 인공지능 기술 폴더를 분류할까요?
인공지능 기술폴더에 학습한 문헌을 "포함"해서 분류해주세요.
인공지능 기술폴더에 학습한 문헌을 "제외"해서 분류해주세요.
아니요, 나중에 할게요.
AI분류 선택

49

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It is being used by companies and patent firms as a classification model with an accuracy level that can be used for business.

AI accuracy

Avg. 85 %

Number of cases that can be classified

1,000 More than 100 million

Patent data-specific language model

1st

Building learning data Pure cost of use

410 million

With more than 3.4 million patent data entries per year, it takes tens of minutes to identify the core purpose and solution of a single patent, with an average of 1,500 sentences.

are displayed. As used herein, the term "graphics" includes any object that can be displayed to a user, including, without limitation text, web pages, icons (such as user-interface objects including soft keys), digital images, videos, animations, and the like.

In some embodiments, graphics module 132 stores data representing graphics to be used. Each graphic is, optionally, assigned a corresponding code. Graphics module 132 receives, from applications etc., one or more codes specifying graphics to be displayed along with, if necessary, coordinate data and other graphic property data, and then generates screen image data to output to display controller 156.

Haptic feedback module 133 includes various software components for generating instructions used by tactile output generator(s) 167 to produce tactile outputs at one or more locations on device 100 in response to user interactions with device 100.

Text input module 134, which is, optionally, a component of graphics module 132, provides soft keyboards for entering text in various applications (e.g., contacts 137, e-mail 140, IM 141, browser 147, and any other application that needs text input).

GPS module 135 determines the location of the device and provides this information for use in various applications (e.g., to telephone 138 for use in location-based dialing; to camera 143 as picture/video metadata; and to applications that provide location-based services such as weather widgets, local yellow page widgets, and map/navigation widgets).

Applications 136 optionally include the following modules (or sets of instructions), or a subset or superset thereof: Contacts module 137 (sometimes called an address book or contact list); Telephone module 138; Video conference module 139; E-mail client module 140; Instant messaging (IM) module 141; Workout support module 142; Camera module 143 for still and/or video images; Image management module 144; Video player module; Music player module; Browser module 147; Calendar module 148; Widget modules 149, which optionally include one or more of: weather widget 149-1, stocks widget 149-2, calculator widget 149-3, alarm clock widget 149-4, dictionary widget 149-5, and other widgets obtained by the user, as well as user-created widgets 149-6; Widget creator module 150 for making user-created widgets 149-6;

Various other image, video, animation, audio, applications, presentation applications, JAVA-enabled applications, encryption, digital rights management, voice recognition, and voice replication.

In conjunction with touch screen 112, display controller 156, contact/motion module 130, graphics module 132, and text input module 134, contacts module 137 are, optionally, used to manage an address book or contact list (e.g., stored in application internal state 192 of contacts module 137 in memory 102 or memory 370), including: adding name(s) to the address book; deleting name(s) from the address book; associating telephone number(s), e-mail address(es), physical address(es) or other information with a name; associating an image with a name; categorizing and sorting names; providing telephone numbers or e-mail addresses to initiate and/or facilitate communications by telephone 138, video conference module 139, e-mail 140, or IM 141; and so forth.

In conjunction with RF circuitry 108, audio circuitry 110, speaker 111, microphone 113, touch screen 112, display controller 156, contact/motion module 130, graphics module 132, and text input module 134, telephone module 138 are, optionally, used to enter a sequence of characters corresponding to a telephone number, access one or more telephone numbers in contacts module 137, modify a telephone number that has been entered, dial a respective telephone number, conduct a conversation, and disconnect or hang up when the conversation is completed. As noted above, the wireless communication optionally uses any of a plurality of communications standards, protocols, and technologies.

In conjunction with RF circuitry 108, audio circuitry 110, speaker 111, microphone 113, touch screen 112, display controller 156, optical sensor 164, optical sensor controller 58, contact/motion module 130, graphics module 132, text input module 134, contacts module 137, and telephone module 138, video conference module 139 includes executable instructions to initiate, conduct, and terminate a video conference between a user and one or more other participants in accordance with user instructions.

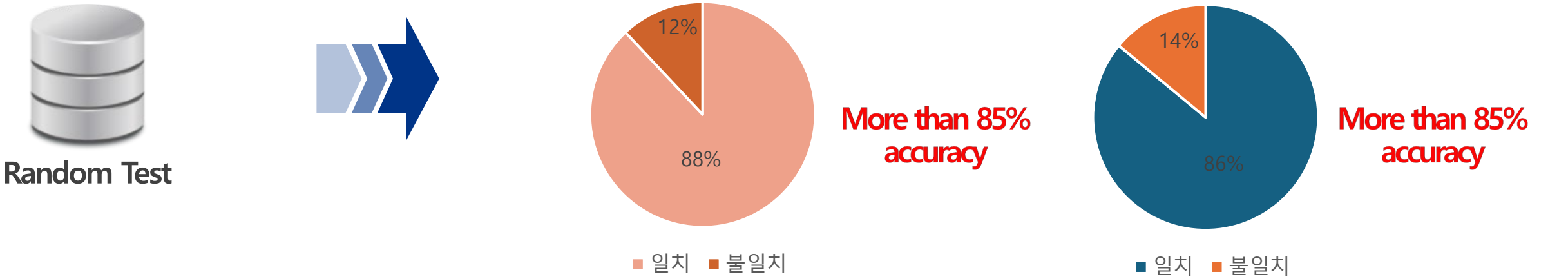
In conjunction with RF circuitry 108, touch screen 112, display controller 156, contact/motion module 130, graphics module 132, and text input module 134, e-mail client module 140 includes executable instructions to create, send, receive, and manage e-mail in response to user instructions. In conjunction with image management module 144, e-mail client module 140 makes it very easy to create and send e-mails with still or video images taken with camera module 43.

In conjunction with RF circuitry 108, touch screen 112, display controller 156, contact/motion module 130, graphics module 132, and text input module 134, the instant messaging module 141 includes executable instructions to enter a sequence of characters corresponding to an instant message, to modify previously entered characters, to transmit a respective instant message (for example, using a Short Message Service (SMS) or Multimedia Message Service (MMS) protocol for telephony-based instant messages or using XMPP, SIMPLE, or IMPS for Internet-based instant messages), to receive instant messages, and to view received instant messages. In some embodiments, transmitted and/or received instant messages optionally include graphics, photos, audio files, video files and/or other attachments as are supported in an MMS and/or an Enhanced Messaging Service (EMS). As used herein, "instant messaging" refers to both telephony-based messages (e.g., messages sent using SMS or MMS) and Internet-based messages (e.g., messages sent using XMPP, SIMPLE, or IMPS).

In conjunction with RF circuitry 108, touch screen 112, display controller 156, contact/motion module 130, graphics module 132, text input module 134, GPS module 135, map module 154, and music player module, workout support module 142 includes executable instructions to create workouts (e.g., with time, distance, and/or calorie burning goals); communicate with workout sensors (sports devices); receive workout sensor data; calibrate sensors used to monitor a

The core of a patent document
is a single solution for a single
purpose.

The probability of finding the purpose and solution in a single patent document is only 0.00004%.



Summarize the purpose and solution in a sentence that is easy to read in a few seconds, within 100-300 characters.



요약

A ring-type wearable device is disclosed. The disclosed ring-type wearable device comprises: an outer ring member; an inner ring member separably inserted into the outer ring member; a sensor unit disposed in the outer ring member; and a control unit disposed in the outer ring member so as to be electrically connected to the sensor unit, wherein the sensor unit can maintain constant sensitivity in correspondence to the thickness of the inner ring member.

AI 요약 Copilot

목적 다른 목적 탐색

사용자의 상이한 두께의 손가락 크기에 대응할 수 있고, 디바이스의 크기가 변경되더라도 감지부의 감지 감도를 일정하게 유지할 수 있는 링 형태의 웨어러블 디바이스를 제공한다.

솔루션 대체 솔루션 탐색

손가락 형상의 웨어러블 기기는, 외부 링 부재, 외부 링 부재의 내부에 분리 가능하게 삽입되는 내부 링 부재, 외부 링 부재에 배치되는 센서, 외부 링 부재에 배치되고, 센서와 전기적으로 연결되는 제어부를 포함한다. 센서부는 내부 링 부재의 두께에 대응하여 일정한 감지 감도를 유지한다.

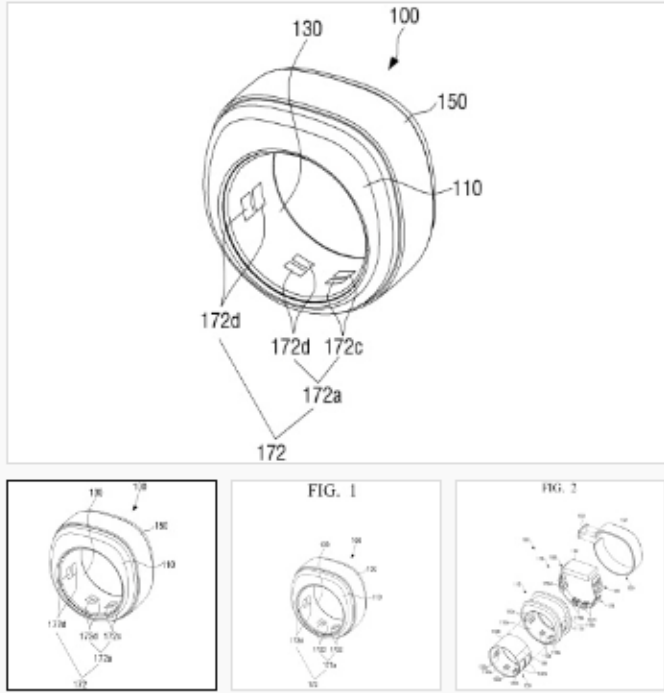
AI 요약 Copilot이 도움이 되셨는지 알려주세요. 개선에 활용됩니다. (1,000자 제한)

EN KO

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도면

< 대표도 (1/21) >



Hundreds of millions of patents.
This patent can be used for other purposes by finding a case that can be expanded.

Keywert

Purpose/Solution Exploration

KR 2150635 B1

registration

Method for measuring heart rate based on vision system

Explore other

Explore alternative

purposes

solutions

The solution of KR 2150635 B1 "This method looks at a person's face and uses the speed data to measure their heart rate. This involves comparing the speed data with a reference data and using rules to estimate their speed based on the comparison" . We explored 10 objectives to which the same solution could be applied .""

☐ All literature

 Save Kwork

Sliding view



☐ 1.

Provides a method for measuring a noninvasive, safe and accurate spinal deformity measurement index. (KR 2740327 B1)

☐ 2.

To provide an accurate prediction method of individual heart rate in field-based scenarios, and to solve the problem of heart rate data loss during exercise of current wearable devices, especially during high-intensity exercise. (CN 119055204 A)

☐ 3.

Develop a method to detect changes caused by changing and large-scale fires and large-scale accidents. (KR 2024-0029668 A)

☐ 4.

To extract heart rate from PPG signals for motion artifacts and improve the calculation accuracy of heart rate values from PPG signals. (CN 110169764 A)

☐ 5.

To provide a continuous wave radar-based projectile orbit extraction method, the radar for measuring the orbit of an aircraft belongs to the field of measurement technology. (CN 103743298 A)

☐ 6.

Provided are compositions and methods for measuring biometric indicators in mammalian subjects. (AU 2019353114 A1)

☐ 7.

Provided are methods and systems for judging a condition based on the age and age of a subject. (WO WO2022/138041 A1)

☐ 8.

To support PPG-based HR prediction, especially during walking running sessions, when the signal is affected by MA or any other type of noise. (US 2023-0190120 A1)

☐ 9.

By executing the workload at an individually preset pace, the number of executions of the workload tasks is reduced, thereby simplifying the test, omitting the weighting procedure for the test subject, and providing a time-saving method that improves the safety of the test for persons with reduced health levels. (RU 2447834 C1)

☐ 10.

Provided is a method for determining the position of one or more moving targets within an unbiased three-dimensional measurement space using data collected for one or more moving targets by an EO/IR sensor. (US 2021-0389461 A1)

Among hundreds of millions of patents, we expand our ideas by finding cases where other technologies are applied to solve the same purpose as the present invention.

keywert

Purpose/Solution Exploration

US 2022-0256984 A1

registration

Ring-type wearable device (ring-type wearable device)

Explore other

Explore

purposes

alternative

The purpose of US 2022-0256984 A1 is "to provide a ring-shaped wearable device that can accommodate different finger sizes of a user and maintain the detection sensitivity of the detection unit constant even when the size of the device changes". Ten solutions were explored to solve the same purpose."

☐ All literature

Save Kwork

Sliding view

☐ 1 .

The ring device comprises a ring device and a ring sleeve. The ring device has a clamping groove, and the orientation of the notch of the clamping groove is different from the stretching direction of the finger. The ring sleeve has at least one separating and mounting end, and a clamping structure is arranged at the separating and mounting end, and in the clamping mode, the clamping structure is aligned with the clamping groove. (CN 115299681 A)

☐ 2 .

A wearable device has parts for detecting hand movements, generating signals based on hand movements, and providing commands based on hand movements. (KR 1928971 B1)

☐ 3 .

A wearable electronic device includes a frame. The wearable electronic device may include an electronic component portion that is mounted along one side of the frame and includes a battery. The wearable electronic device may include a battery protection member coupled to the battery. The wearable electronic device includes a cover portion coupled to one side of the frame to surround the electronic component portion and the battery protection member. (WO WO2024/228467 A1)

☐ 4 .

The wearable device has a belt, a carrier, an optical sensor, a metal piece, and a control unit. The metal piece can be moved close to or away from the skin and sends a signal. The control unit reads the signal for measuring the heart rate, calculates the heart rate value, and sends an alert message based on the signal. (TW 201805768 A)

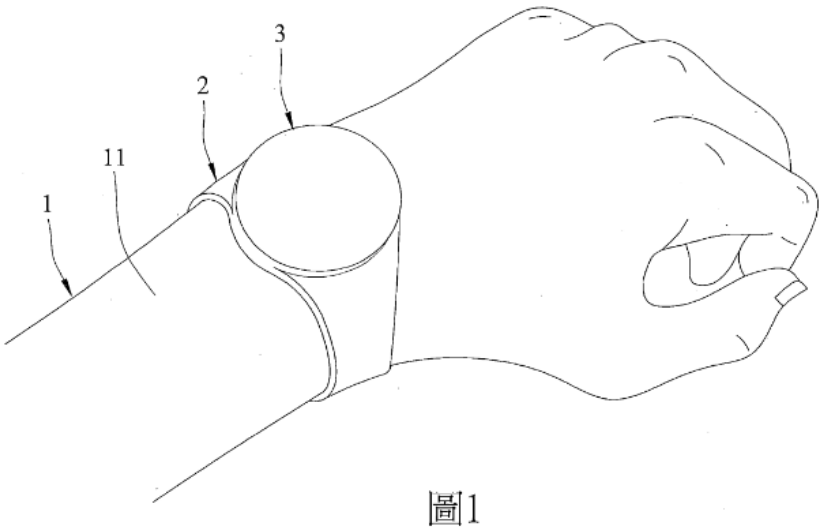
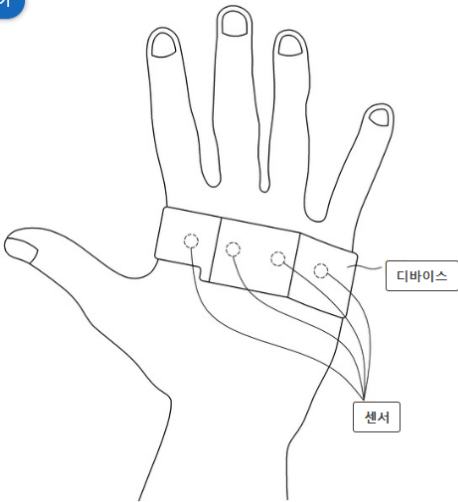
☐ 5 .

An electronic device has an outer frame having a hole, an inner frame, and an inner frame holding them together. The device also has a component for fixing a component to the outer frame. The device has a plurality of fixing ribs spaced apart between the inner frame and the outer frame. (KR 2024-0147403 A)

☐ 6 .

The link mechanism is configured by rotatably attaching link pieces, and the link mechanism is formed by a main body of the ornament with a ring mechanism in the shape of a ring. When the link mechanism expands/contracts, the diameter can be freely adjusted, and an immediate response can be realized to the different sizes of fingers or arms for each individual, and size correction is not required. In addition, the link mechanism can be used as a design for personal ornaments themselves, and the marketability can be increased by arranging a decorative member (9) such as a jewel on the rotating part of the link piece (1). (JP 1996-052015 A)

× 부호설명 전체닫기





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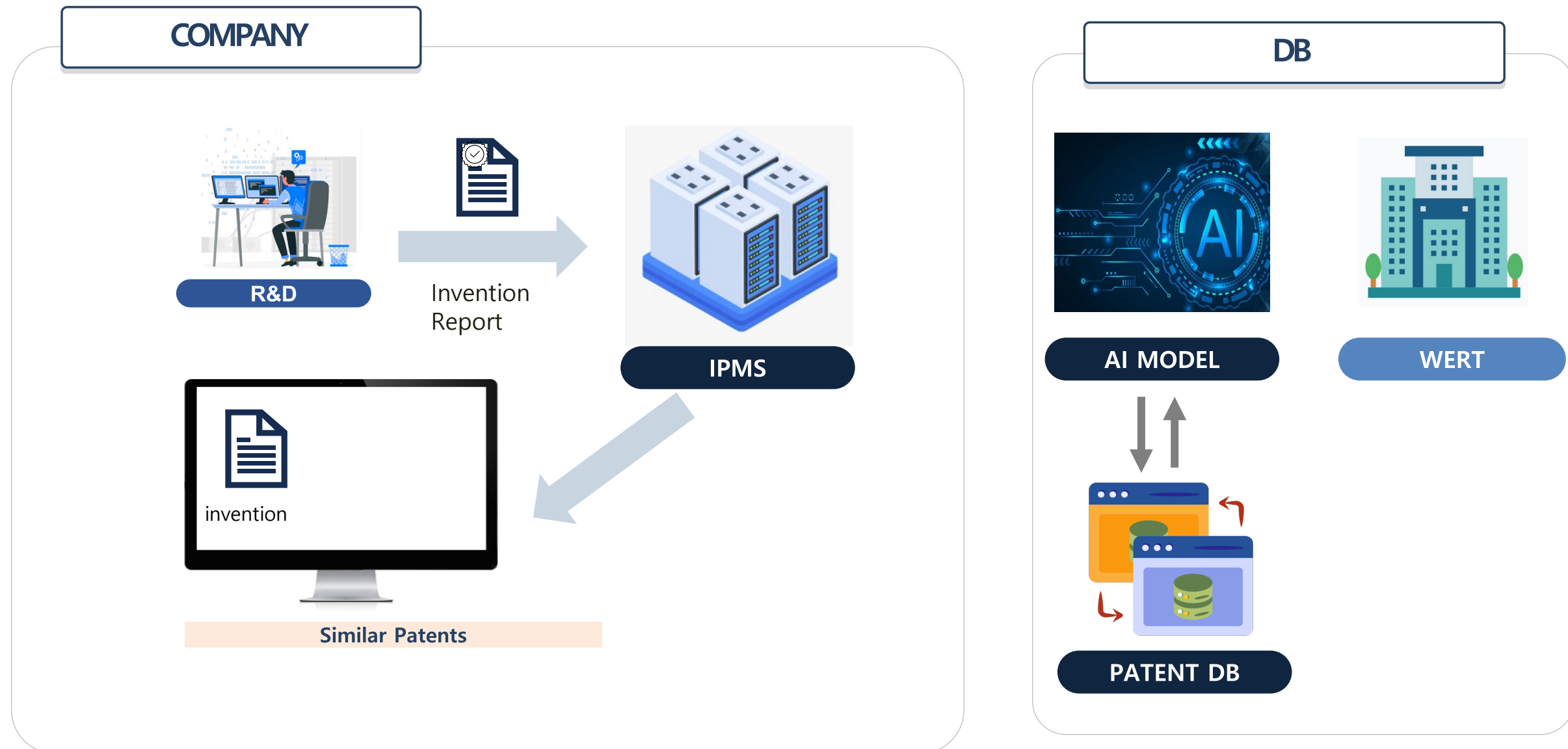
Recent cases of AI based
on patent data



Invention Similarity Patent Service



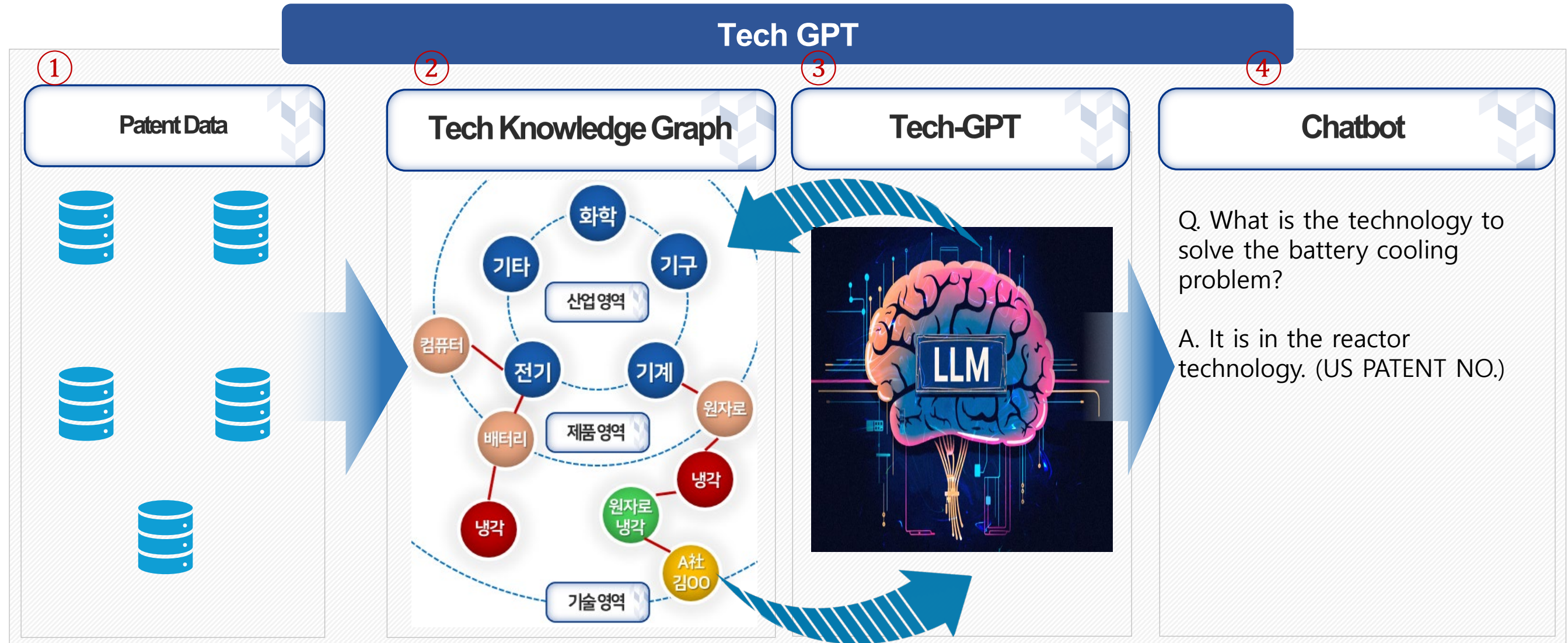
(case1) Derivation and summary services for similar patents in the researcher's invention report



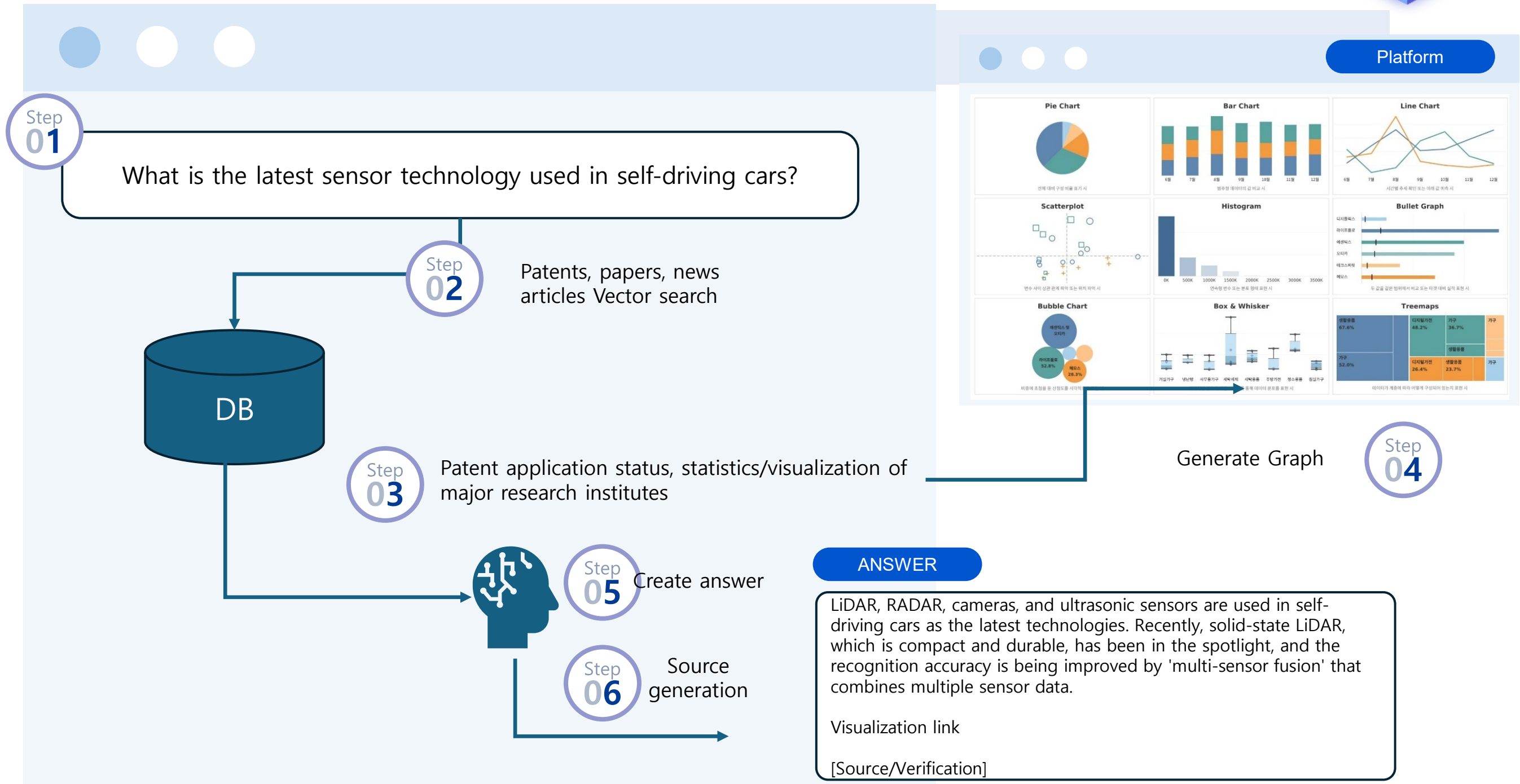


(Case 2) LLM model of the Tech-GPT platform, the largest R&D AI project in the country

Applying the knowledge graph between technology-researcher-technology derived from global patents to the super-large AI



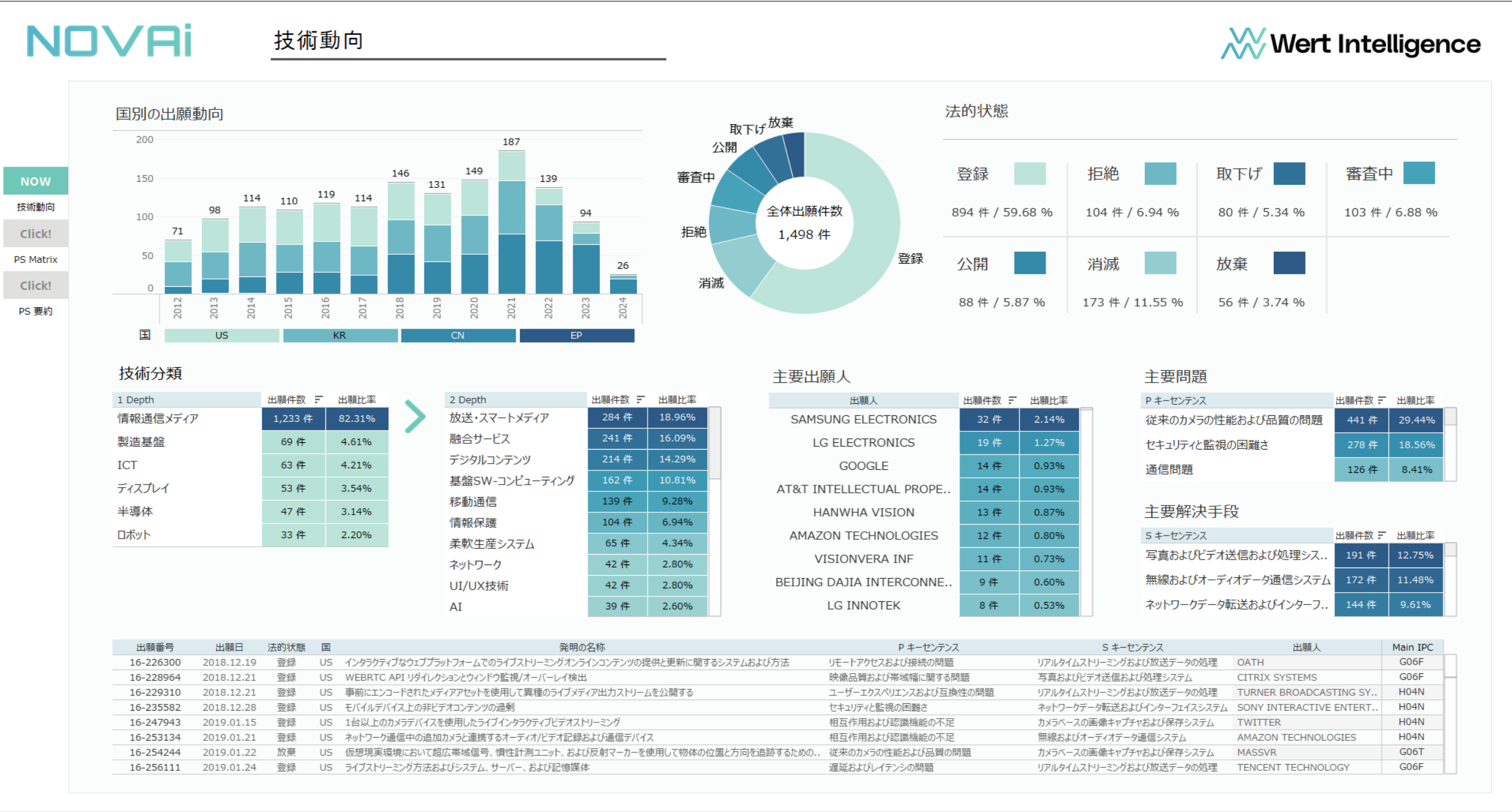
Tech-GPT Platform



AI models exported to overseas companies



(Case 3) Exported to large companies in Japan and Taiwan - Solution Summary Generative AI Model





감사합니다

Q & A

PRACTICE TOPIC 3

Discussion



FÉDÉRATION INTERNATIONALE DES CONSEILS
EN PROPRIÉTÉ INTELLECTUELLE

INTERNATIONAL FEDERATION OF
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INTERNATIONALE FÖDERATION
VON PATENTANWÄLTEN

4 April 2025
09:00-10:30