

Overview of Patsnap

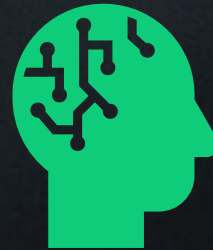
Topic 13: Commercial IP Database Platforms:
Features, Services, and Business Applications



- **3 main objectives for today's meeting**



Know each other better



How Patsnap can make a change to patent offices?



How the rising AI capabilities and AI-Agentics may impact patent offices?

Our footprint in past years

○ Toronto, Canada

○ London, UK

● Suzhou 【Global R&D Center】

● Shanghai 【China R&D Center】

● Tokyo, Japan

Singapore

【Artificial Intelligence, Data Mining R&D Team】

Global employees

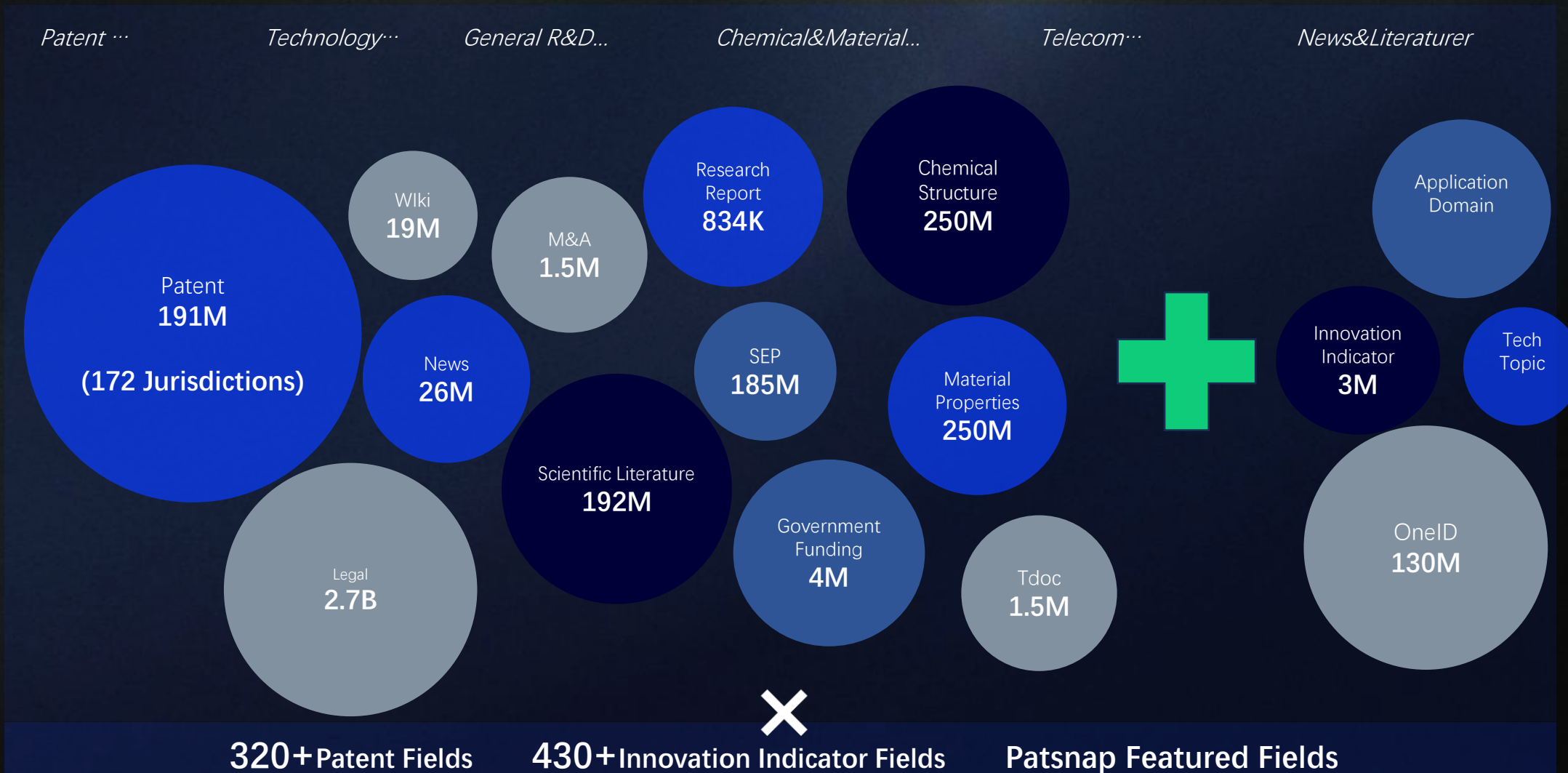
1000+

70%

being technology
developers

ASEAN is the next strategic
growth region for Patsnap

Patsnap's data coverage



20 Categories and 3.5Billion+ patent and RD records plus deep processing structural fields with daily update.

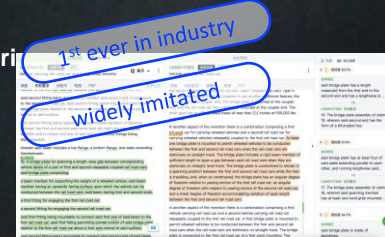
Patsnap is not new to AI capabilities



2022
Patent DNA



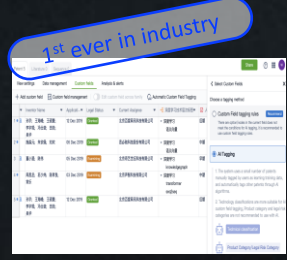
2023
Patent comparison



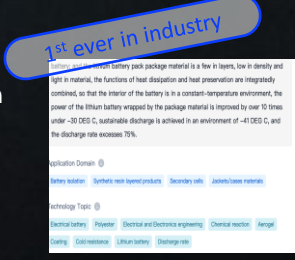
2024

Ready to step into Gen-AI era
Fully equipped with expertise of AI enhancing IP

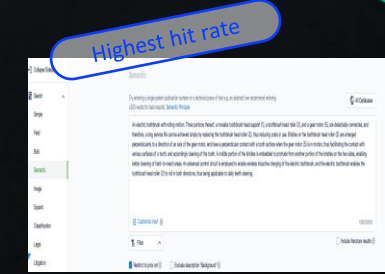
2021
AI tagging



2021
Tech Topic & Application Domain Classification



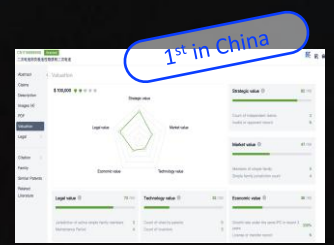
2020
Semantic search



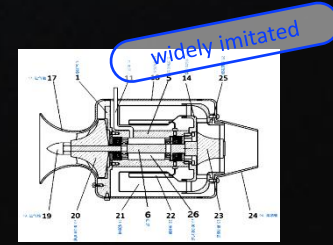
2015
3D Landscape Analysis



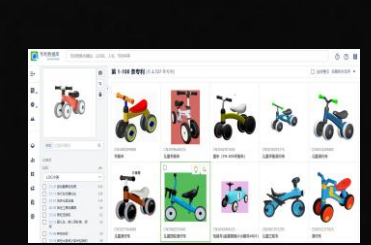
2018
Patent Valuation



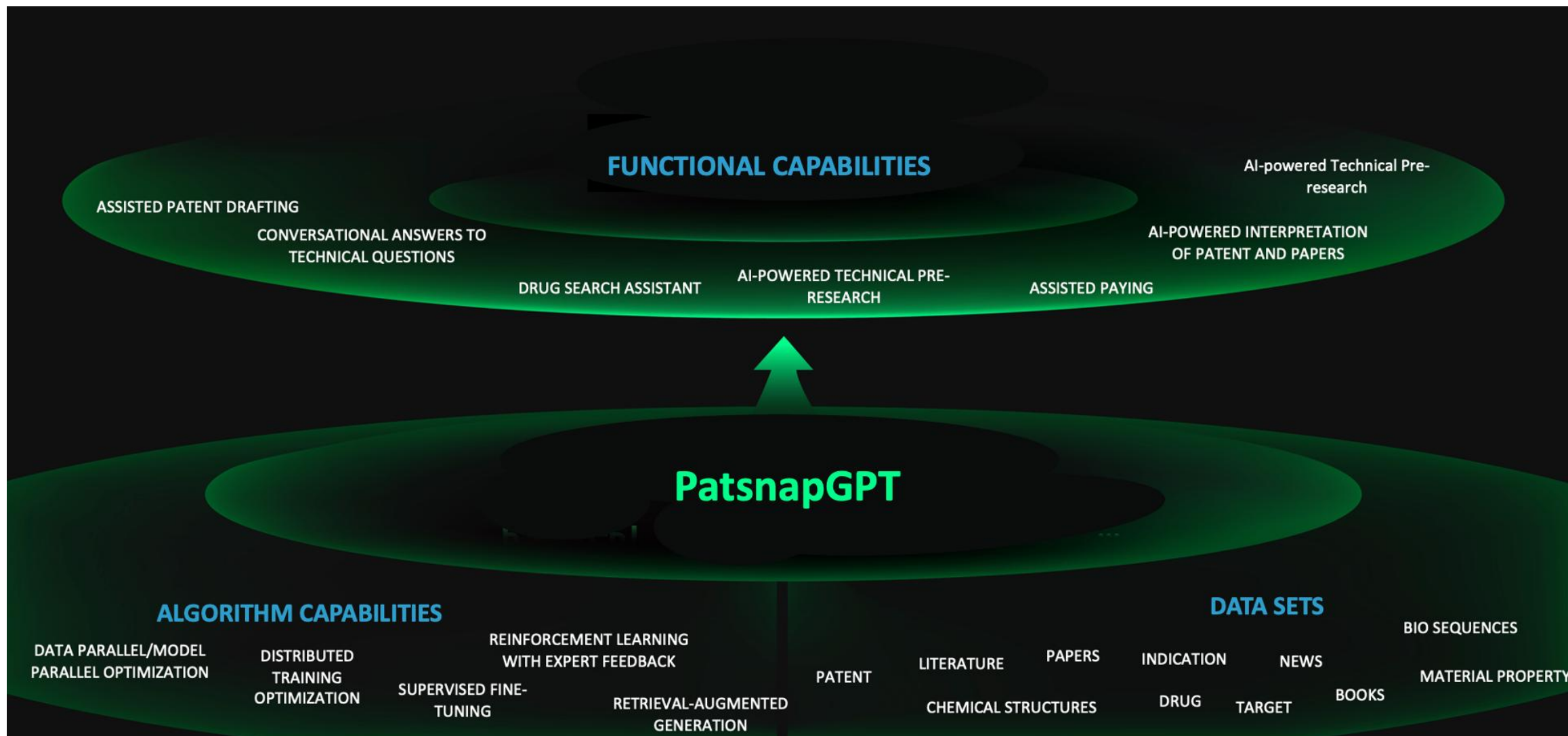
2019
Smart Image



2020
Image Search



Why to Build PatsnapGPT?





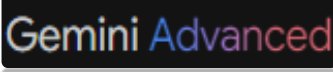


Why IP Domain Specificity Matters?

Search for 10 patents on biodegradable golf tees

Hallucinations – made up or incorrect references

Real, verified references

Source:

 Patsnap GPT	 Chat GPT4o	 Google Gemini	 Perplexity.AI	 Claude3 Opus
US6319156B1	US6319156	US6319156B1	US6319156B1	US5,965,863
EP2303418B1	US5690563	US5690563A	US5690563A	US6,749,525
JP2013512019A	US20130137538 (x3)	US5082264A	US6290616B1	US7,226,369
AT524592A4	US20100062878 (x2)	US5046730A	US5431392A	US7,311,620
JP1992295377A	EP2505236A1	US4846567A	US5186456A	US8,382,614
US20110263353A1	US20110263353 (x2)	US4768870A	US5085432A	US8,597,145
GB2365784A	-	US4629061A	US5085438A	US9,457,245
US20070287559A1	-	US20150064589A1	US5082264A	US9,687,707
Patsnap	Justia Patents Patents Encyclopaedia	Google Patents	Justia Patents Google Patents Freepatentsonline	Not given

Data Security and Privacy Protection of Patsnap LLM

“ Patsnap attaches great importance to customer data and privacy protection. We will not collect users' privacy data for large model training. We will strictly protect the input and output data of users when using Patsnap tools



User Rights

- Customer prompts and data will not be used for model training
- The owner of the customer's input and output data is the customer themselves
- Customers can choose how long to retain their data

**Customer data is
under your control**



Data Protection

- Customer data is stored encrypted at rest using AES256
- Customer data transmission encryption, TLS1.3 protocol
- Customer data will not be passed on to any third parties

**Customer data
security protection**

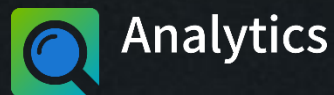


Privacy Protection

- The collection of customer information will be clearly stated in the privacy agreement and user consent will be obtained
- The LLM will not collect personal privacy data and sensitive information of customers

**No personal privacy
data is collected**

- Our product suite is to provide insights and innovative solutions



Analytics

A comprehensive IP intelligence platform designed for IP and R&D professionals.



AI-Agent *Hub*

patsnap

Connected Innovation
Intelligence



Chemical

Brings together patent data plus vital and relevant scientific information into one single and easily searchable interface



Bio

A unique sequence searching platform that connects patent and non-patent literature sequences with therapeutics and biologics.



Synapse

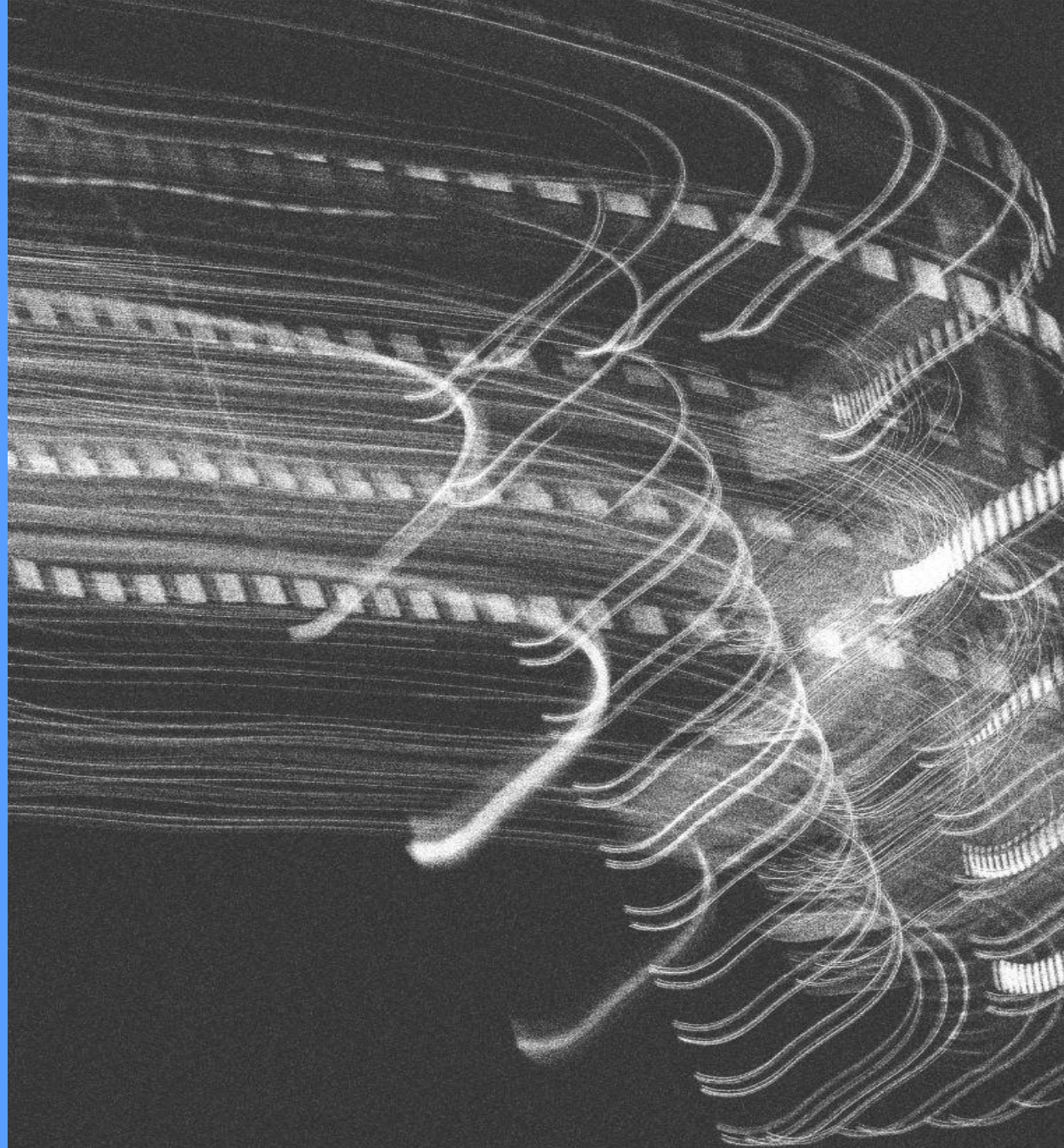
AI-powered platform specifically designed for the pharmaceutical industry. It enables a connected workflow between drug discovery information and development insights



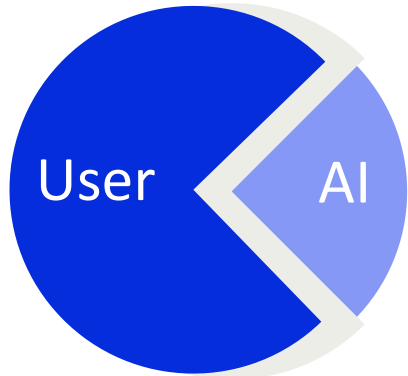
DEMO TIME

MacBook Air

AI Agentic Overview

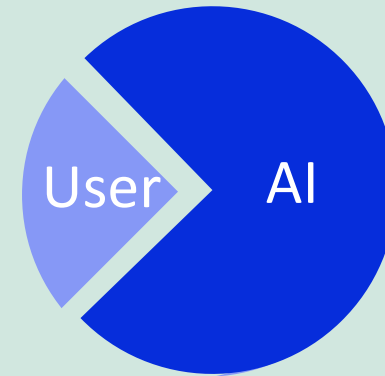
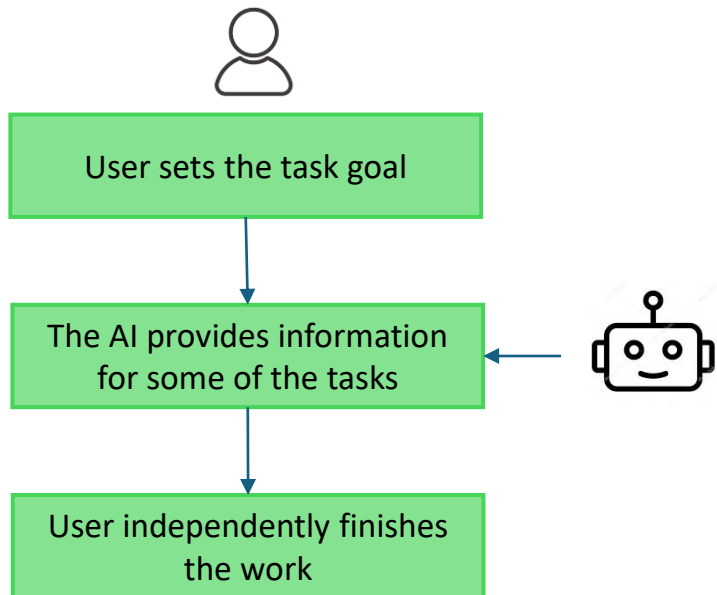


AI tools vs. AI agent



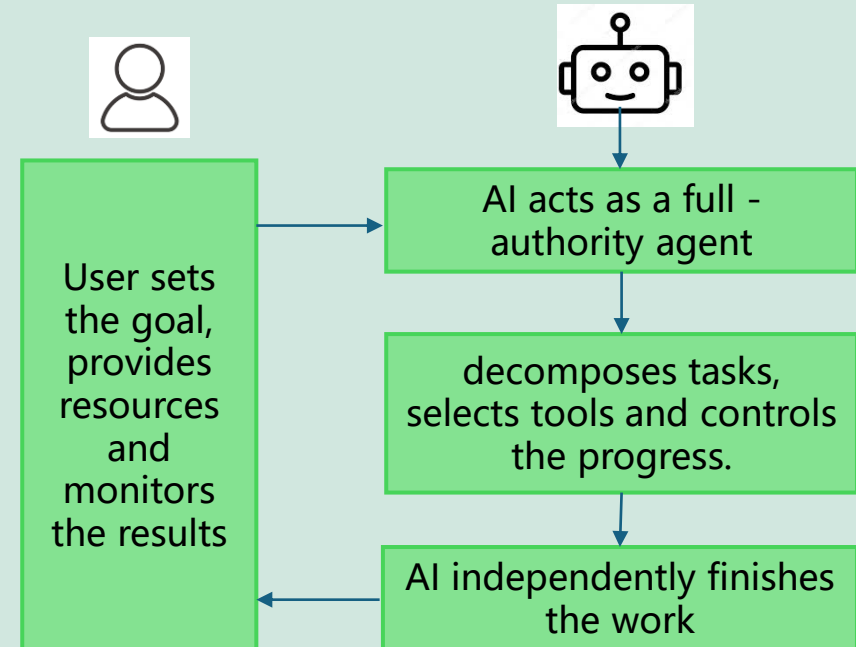
AI Tools Mode

user completes most of the work

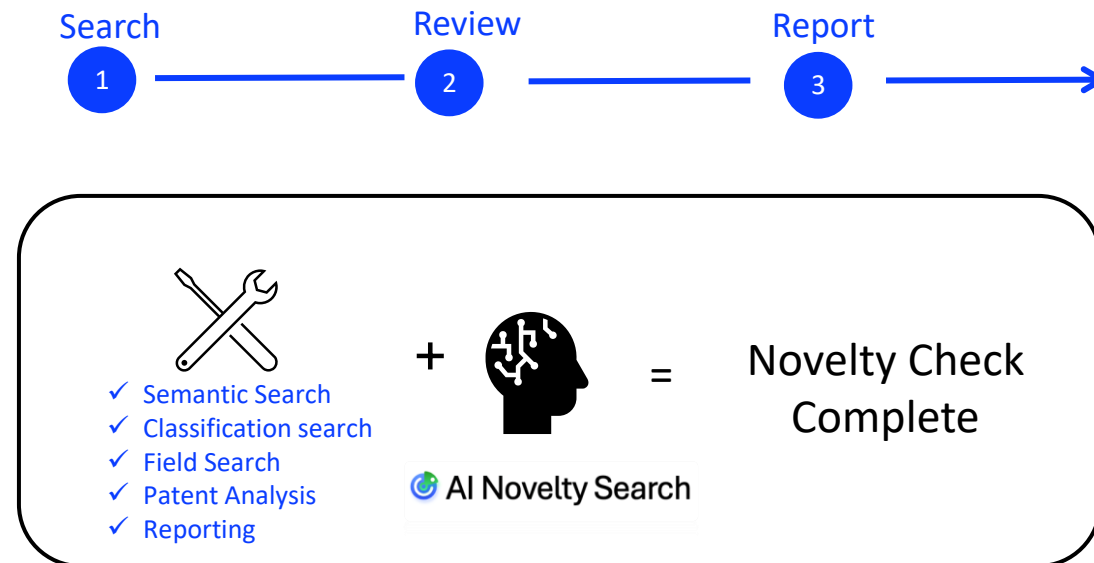
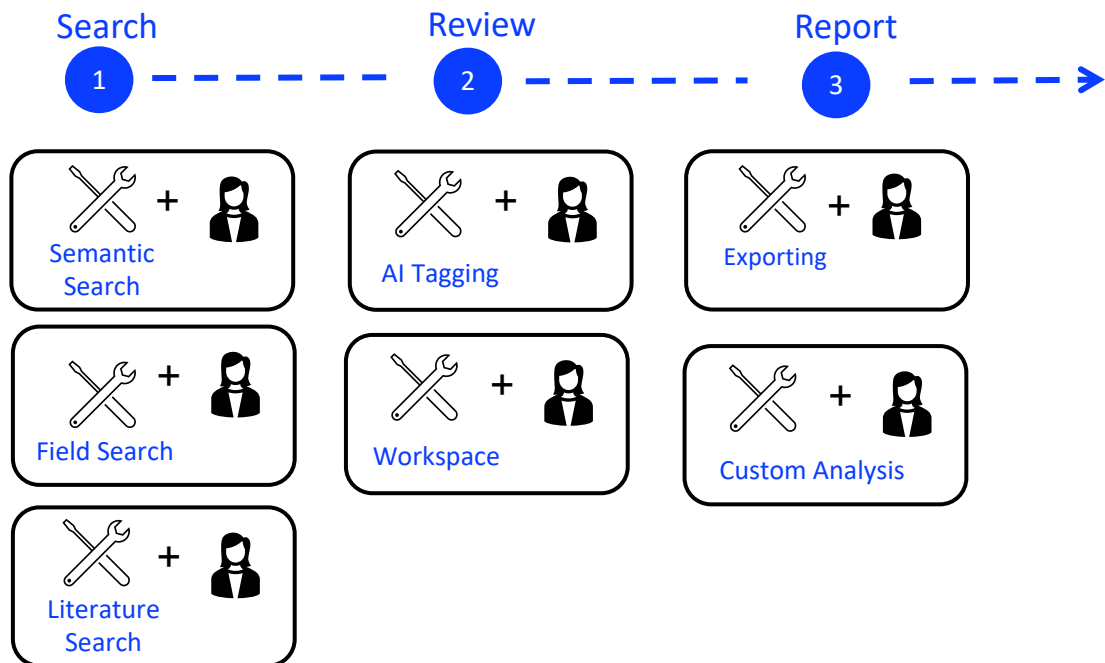
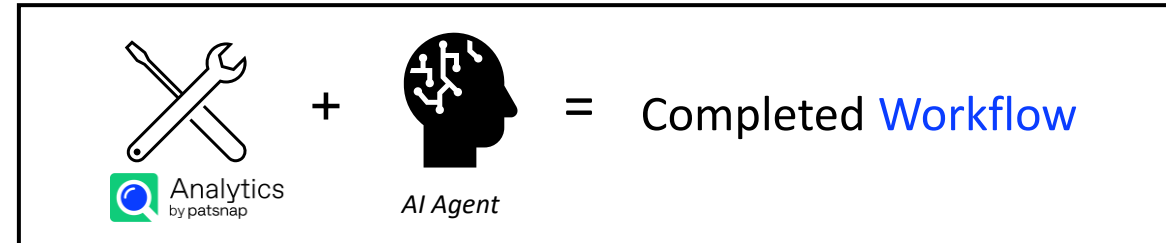
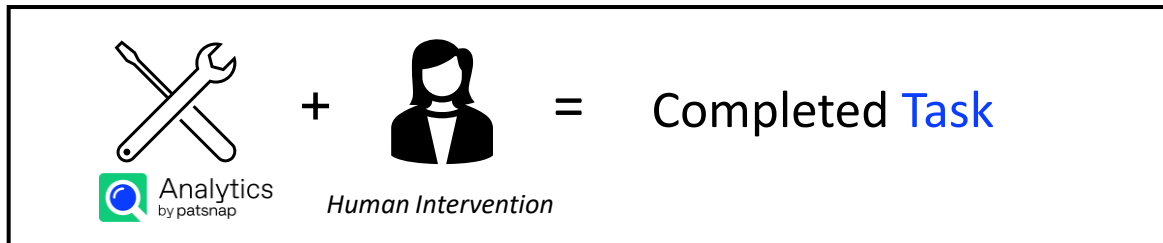


AI Agent Mode

the AI completes most of the work



AI Tools vs. AI Agents: What's the difference?



Novelty Search 1.1

High-precision Semantic Search, easily discover the most relevant patents



Challenge: The semantic algorithm may not be advanced enough or the data coverage may be incomplete, leading to low relevance in search results and a time-consuming process for patent novelty checking.

Semantic

Try entering a single patent number or a technical piece of text e.g. an abstract (we recommend entering >200 words for best results). [Semantic Principle](#)

All Databases

A method for operating a self-propelled floor cleaning device, in a first operating step, drives the floor cleaning device across a first treatment path across the floor to be cleaned according to a predetermined driving strategy, or according to a predetermined algorithm, which is calculated on the basis of data, which are detected by sensors and thereby carries out a first cleaning step by a first cleaning device. In the first operating step, areas of the floor surfaces to be cleaned, which are cleaned in at least a second operating step by a second cleaning device, or which are excluded from the cleaning by the second cleaning device, are determined. A floor cleaning device, which is suitable for carrying out the method, has a chassis, a first cleaning device for dry cleaning a floor surface, and a second cleaning device for wet cleaning a floor surface.

Customize Input

Customize input

Please select relevant keywords from the list below. (15/50)

flo cleaning operating surface area self treatment path

driving strategy chassis dry algorithm wet sens

Search for keywords to add

floor ground

Add keyword

Semantic Search: By entering a piece of text or a patent number, can find the most similar technical solutions globally, with the Top 100 accuracy* in identifying English X documents reaching 78%.

Semantic - Customize input: View the related concepts matched by semantic search, remove irrelevant concept words, or add more relevant concepts to make the search scope more focused.

The degree of relevance: indicates the relevance of the search target and the content of the retrieved patent text.

Scope of Semantic Search : use English or Chinese words to search from over 192 million patents and 192 million scientific articles globally.

Exclusive

Publication Number	Title	Legal Status & Events
1 99% US10398269B2	Floor cleaning device for dry and wet cleaning as well as method for operating a self-propelled floor cleaning device	Granted
2 87% US9687131B2	Self-propelled floor cleaning device comprising a consecutive vehicle, which follows a lead vehicle	Granted

Advantages: Leading the industry in high-precision semantic search, enhancing the accuracy of the Top 100 to 78% through two types of AI capabilities.

1) Traditional AI algorithm's word vector model 2) Generative AI's LLM semantic understanding

Facilitating users to quickly find the most relevant comparative documents, enhancing the quality and efficiency of novelty and invalidity searches.

*Semantic Top 100 Accuracy: Using a patent number for semantic search, the probability of hitting X documents affecting novelty in the top 100 search results.

Novelty Search 1.2

High-precision Image Search, easily discover the most relevant patents



Challenge: The industry is highly competitive with a high degree of similarity in the appearance of similar products. Especially in the scenario of product internationalization, it is necessary to protect one's unique design through design patents in advance. However, ordinary databases search for similar appearance patents often suffer from incomplete global data coverage and low precision.

Image Search for Design: AI image algorithms filter out background noise from product images, Finding design patents that are visually similar (physical images) and conceptually similar (line drawings), Multi-image search of over 20 million global design patents, with high relevance of results, and TOP100 accuracy* of up to 73.7%.

Image Search for Technology: Industry-first, AI algorithms enable searching through over 30 million utility model patent drawings with images, eliminating the need to construct complex search formulas to find the most relevant technical solutions.

Advantages: Leading the industry with a high-precision image search capability of 73.7%, facilitating the discovery of similar global design and utility model patents, ensuring the stability of design patent rights, and after product launch, able to protect the company's own rights through patents.

* TOP100 Accuracy: Refers to the probability of hitting invalidity evidence in the top 100 patents of the search results, using global design patent invalidation cases to test the image intelligent association model.

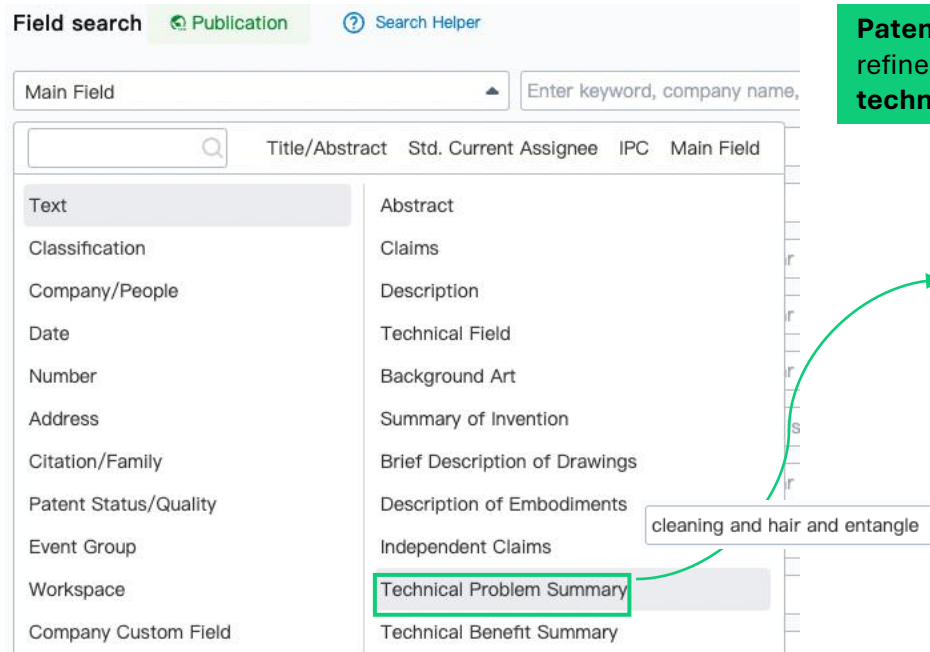


Novelty Search 1.3

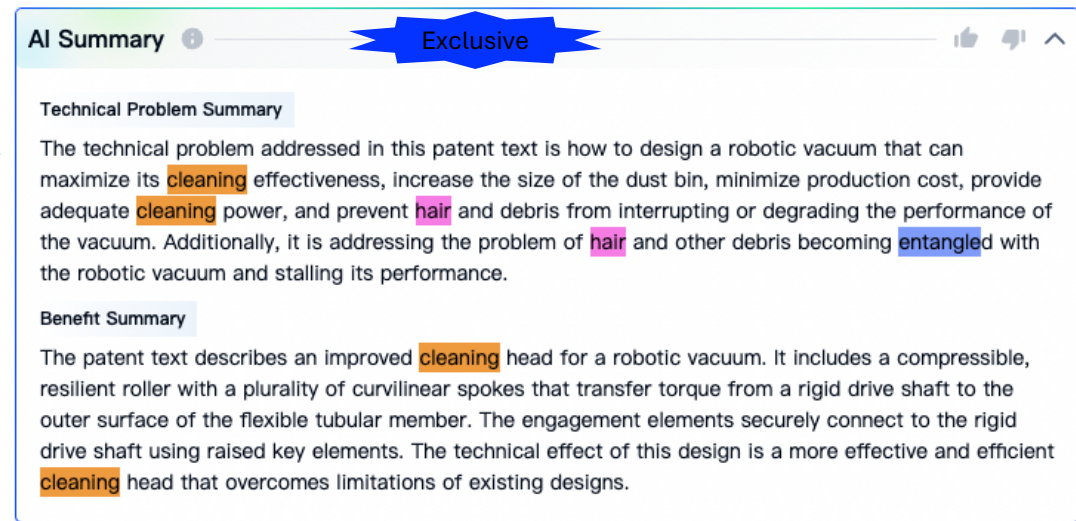
Empowerment through AI makes Field Search more precise



Challenge: When establishing a search mode, if the search field is missing, or if common keywords are used to search for patents, it may result in a large number of recalled results that are inconvenient for further reading.



Patent DNA: Based on Patsnap PatentGPT, the obscure patent text is transcribed and refined to form easily comprehensible and searchable fields **AI Summary**, such as **technical problems, and technical benefit**, thereby improving the accuracy of search.



Field Search: More than 250 search fields, including text, classification, companies, references & family members, patent status & quality, workspace, corporate-customized fields. For instance, legal events including litigation, reexaminations, national defense decryption, double applications in one case, etc.; the status of the Unified Patent Court in Europe, the legal status of EP designated countries, and other deep-processed feature fields that cater to professional novelty search/invalidity search demands.

Advantage: Exclusive high-quality deep-processed patent fields and AI transcription ability make it easier for users to precisely find the most relevant comparison documents, thus improving the quality and efficiency of search

*Patent DNA currently covers patents from China, the USA, and Europe over the past decade.



Novelty Search 2

High-precision Semantic Filtering to enhance the quality and efficiency of patent screening.



Challenge: When dealing with a large number of patents, reading them one by one is time-consuming and laborious. The use of fixed filtering options for selection lacks flexibility, and the inability to filter from the semantics themselves lowers efficiency.

Semantic Filtering:
Restricts the search results to a specific batch. It identifies and sorts by semantic similarity from high to low, to display the key patents that are closest to the technical solution. This type of filtering is more targeted and precise.

The screenshot shows the Novelty Search 2 interface. At the top, a search query is entered: ((TAC:(机器人 OR robot* OR 清洁设备 OR 扫地设备 OR 拖地设备 OR "clean equipment" OR "clean device" OR "sweep" ≈ 73.1K). Below the search bar, the results are displayed as 22,773 simple families (51,066 total). A "SEMANTIC SIMILARITY FILTER" is active, showing a list of assignees with a "Submit" button. The filter results are as follows:

Assignee	Count
LG ELECTRONICS INC	825
SAMSUNG ELECTRONICS CO LTD	428
AMICRO SEMICON CORP	261
TOYOTA JIDOSHA KK	247
UBTECH ROBOTICS CORP LTD	214
HUSQVARNA AB	192
IROBOT CORP	189
HONDA MOTOR CO LTD	164

The main result shown is for patent US11234571B2, titled "Cleaning robot and material identification method thereof". The patent is in a "Granted" status. The abstract describes a cleaning robot with a pre-set threshold comparison table for material identification. Below the abstract, a table lists the patent family members:

Publication Number	Publication Date	Legal Status	Application Number	Application Date
US11234571B2	01 Feb 2022	Granted	US16/584869	26 Sep 2019
TW202106215A	16 Feb 2021	Granted	TW108128007	07 Aug 2019
US20210038040A1	11 Feb 2021	Granted	US16/584869	26 Sep 2019
CN112336268A	09 Feb 2021	Withdrawn-Deemed	CN201910849136.2	09 Sep 2019
TW1716957B	21 Jan 2021	Granted	TW108128007	07 Aug 2019

Advantages: By using high-precision semantic filtering during the screening process, it is easier for users to quickly find and prioritize the most relevant patents. This significantly improves the quality and efficiency of patent screening.



Novelty Search 3

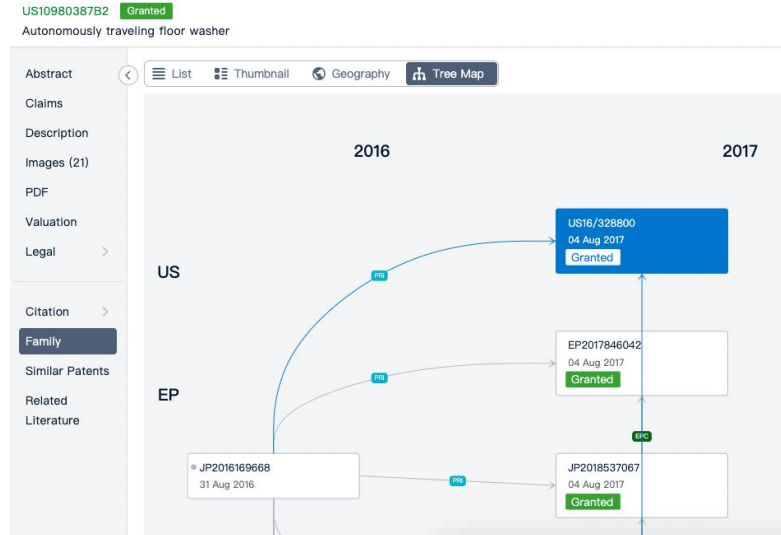
Patent Family/Cited references expansion: tracing back to most relevant patents



Challenge: Filtering relevant patents from search results may lead to omissions, and reading each one is time-consuming and painstaking

Publication Number	Title	Standardized Current Assignee	Keyword Count
US11234571B2	Cleaning robot and material identification method thereof	YAN JASON CHEN SHUI SHIH	robot: 22 robots: 1
US10602898B2	Autonomous floor cleaning system	BISSELL INC	robot: 57 robots: 2
US10945577B2	Timed cleaning method, device and storage medium	BEIJING XIAOMI MOBILE SOFTWARE CO LTD	robot: 18
WO2002062194A1	Automatic floor cleaning device	ZUCCHETTI CENT SISTEMI BERNINI FAB	4 documents
US11497367B2	Floor processing device and system comprised of a floor processing device and an external terminal device	VORWERK & CO INTERHOLDING GMBH	
US10980387B2	Autonomously traveling floor washer	MURATA MASCH LTD	

Family/Citations in search patent results: select high relevance patents from the search results page and track and analyze the most relevant ones.



Citation data covers 61 patent offices, including:

- Source of citations, applicants and those from examination documents
- Type of citations, X/Y/A types, US classes 102/103;
- Non-patent citations;
- Differentiating between self-citations and by others.

Patsnap's Family data covers 172 patent offices, for 192 million patents' application numbers, priority rights, PCT applications, EP entries into designated countries, continuation/divisional applications, double applications in one case, etc.

- Reanalysis of patent family relationships, identification, and correction of erroneously associated patent families using semantic technology, improving accuracy and coverage.

Citation Source	Publication Number/Title	Current Assignee	Abstract Image
APP	JP1996326025A [Withdrawn-Deemed] [Translation] Cleaning robot Application Date: 31 May 1995 Publication Date: 10 Dec 1996	トキコ株式会社	
EXA	US20150196182A1 [Withdrawn-Deemed] [Pledge] Water Recycling System for Mobile Surface Cleaners Application Date: 13 Jan 2015 Publication Date: 16 Jul 2015	TENNANT COMPANY	

Advantages: By having patent family/citation patents of relevant patents, and globally covering deeply processed citation data, it is easier to find the most relevant patents as comparison documents for patent novelty search; Compared to INPADOC family (defined by the European Patent Office), Patsnap family increase coverage by including patents not listed in INPADOC, covering double applications in one case, patents designated by the EPO, etc., providing more comprehensive coverage.

AI Novelty Search Agent

What it does

Powered by PatsnapGPT the Novelty Search is designed to mirror the depth of a human-led search by running iterative searches — but at a fraction of the time and cost.

How it works

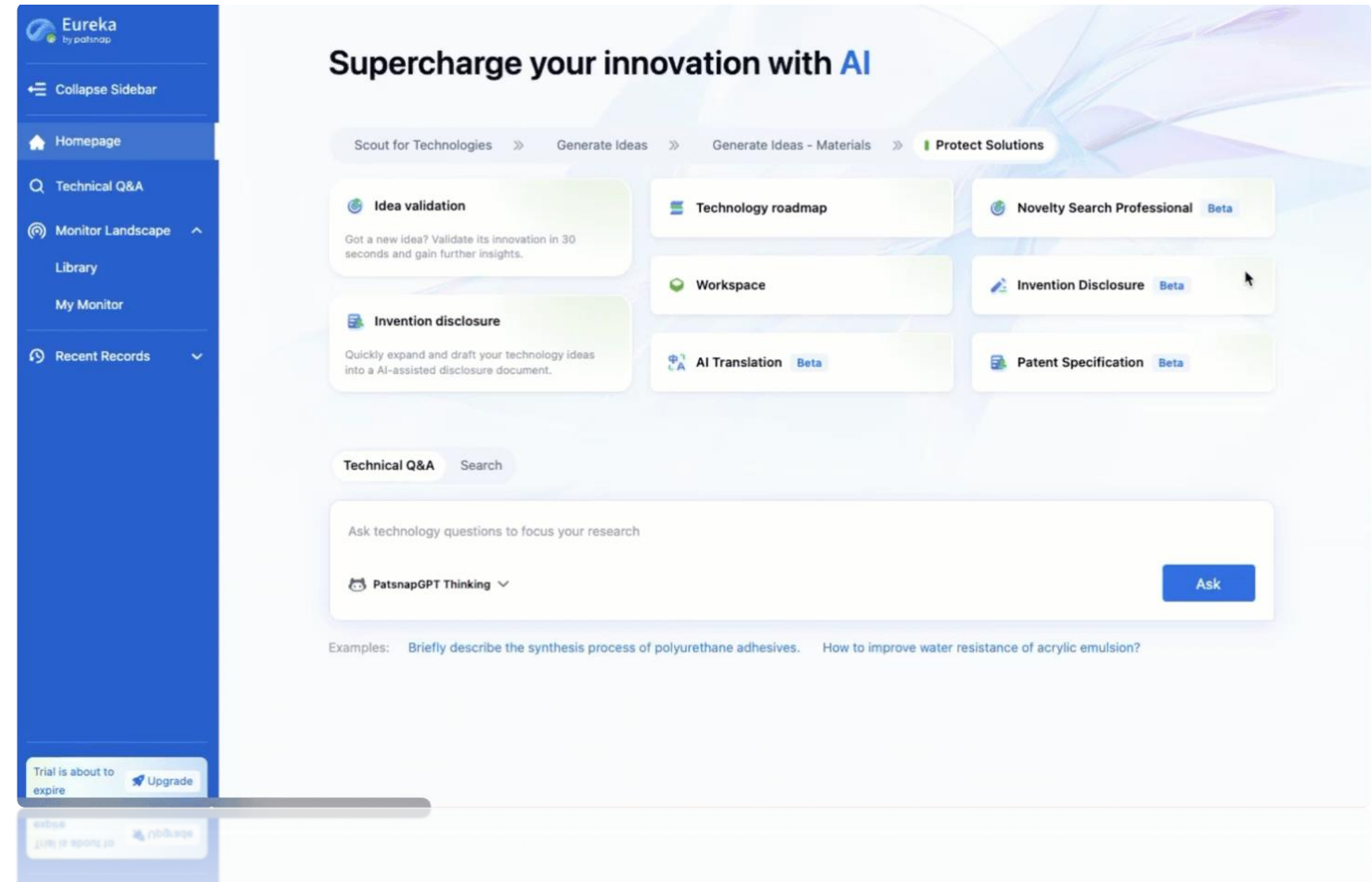
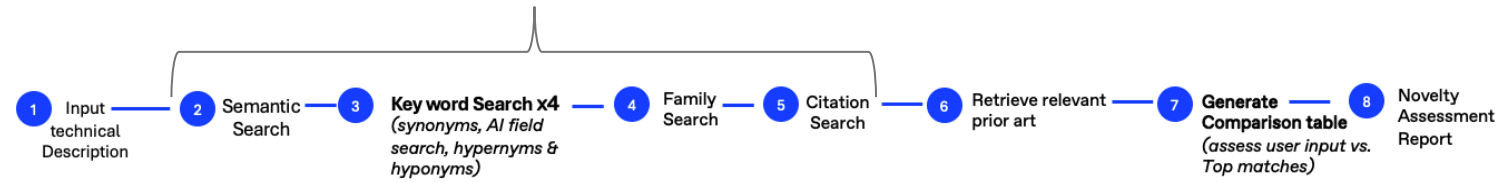
1. Provide technical description - automatically broken into into technical features technical features
2. Generate multiple search strategies:
 - Semantic search
 - Classification search
 - Keyword search x4 (synonyms, AI field search, hypernyms & hyponyms)
 - Family & citation search
3. Retrieve most relevant prior art
4. Generate comparison table (input vs. top matches)
5. Create final report

Agent output

Agent delivers a comprehensive final report. Each report includes an Overview & Title, a breakdown of the Inventive Features of the Solution, Extracted Technical Features, and a Technical Feature Comparison Table. You'll also find an Overall Reference Comparison with a Similarity Score, followed by a clear Summary of findings.

For transparency and reproducibility, the report includes Appendix 1: Technical Elements & Synonyms and Appendix 2: Search Strategy.

Multiple search strategies generated



Thank you!

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