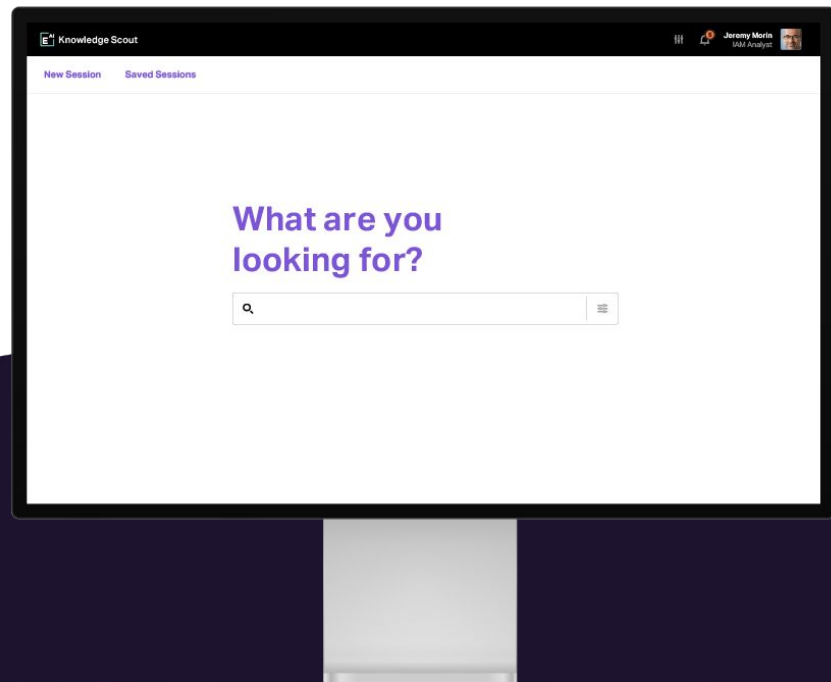
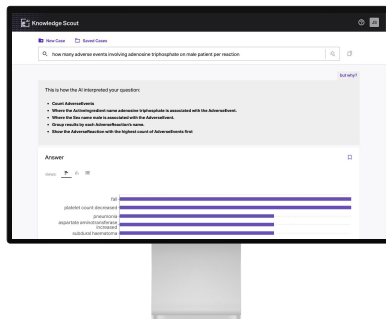


E^{AI} Knowledge Scout



Product Overview:



Knowledge Scout uses AI to **facilitate business decisions that rely on finding information** and generating insights from data across disparate sources.

Knowledge Scout **enables natural language search powered by semantic and data ontology** capabilities to help users navigate structured and unstructured data.

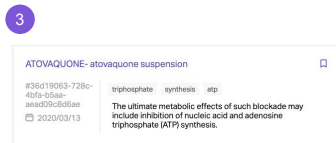
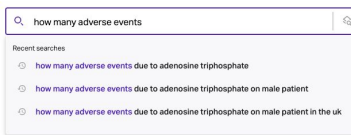
Product Features:

1 What are you looking for?



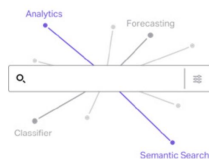
Contextual Search Results - Uncover patterns across unstructured data using semantic similarity search and the ability to drill down on queries

Intuitive User Interaction - query in natural language to retrieve answers from structured and unstructured data, based on pre-defined ontologies




User Learning & Explainability - learns from user interactions (i.e. time spent reading versus bookmarked) to to improve models over time while providing a natural language explanation of how queried results are computed

Integration Capabilities - custom models can be hosted in a pre-defined wrapper to support new use cases (e.g. forecasting, optimization)



When to use Knowledge Scout?

High impact scenarios:

 KS excels at querying **data entities that exist in highly complex databases**, where it may be difficult to construct normal queries.



Expertise required to understand the data once available, coupled with significant investment to analyze / process to make an informed decision.



KS can **reduce search time** and overcome challenges with enterprise search and insights discovery.

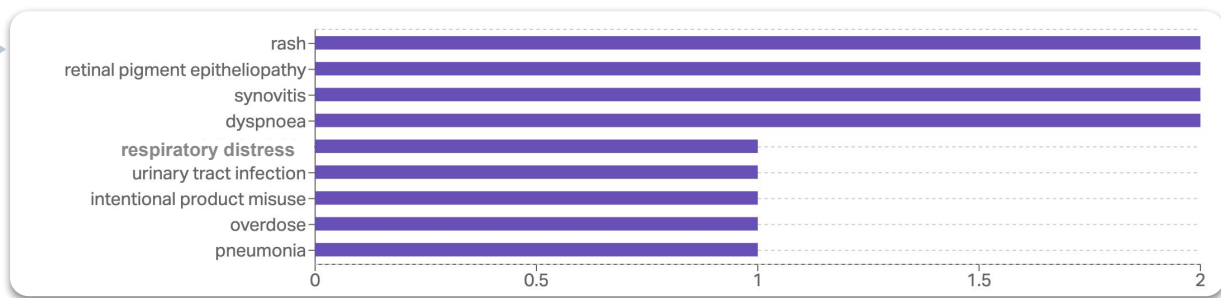
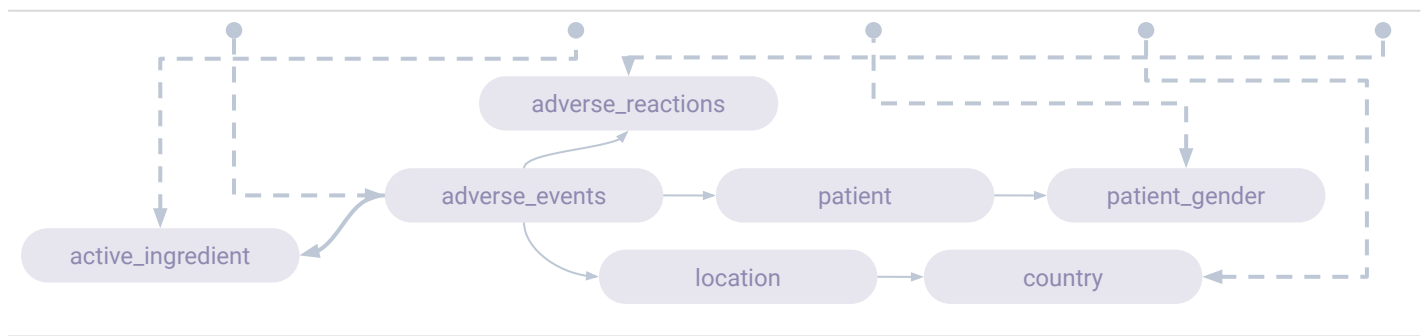
Potential Queries

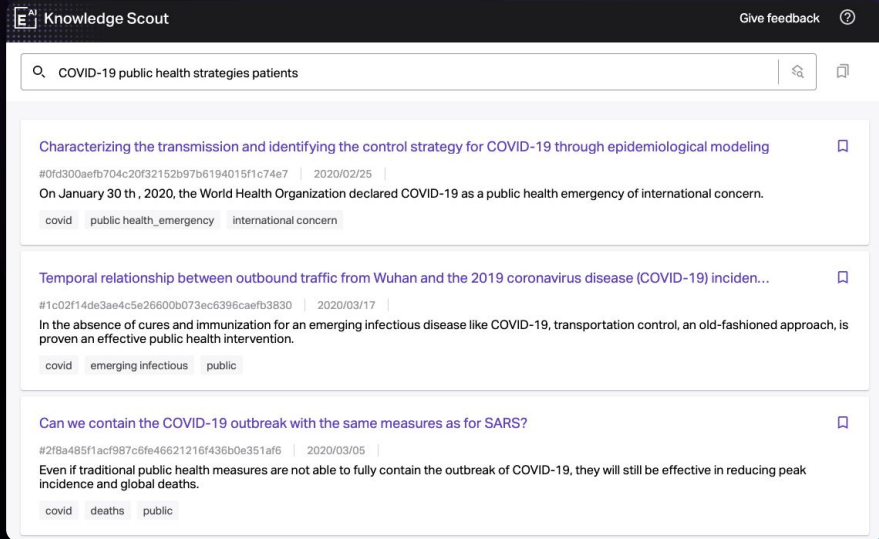
1. How many patients per sex were affected by an adverse event to Remdesivir since 2016?
2. What are the most probable adverse reactions from using Remdesivir on children?
3. Who distributes drugs that uses adenosine triphosphate as an active ingredient?
4. How many adverse events involving adenosine triphosphate on male patient in the UK?

An intuitive way to query data and connect the dots between data sources

How many adverse events involving chloroquine occurred in male patients in the US, sorted by reaction?

- 1 A clinical researcher (or a different user) asks a question
- 2 Natural language models detect and connect data entities based on a domain-specific ontology
- 3 Knowledge Scout classifies the user's intent, then computes the results, drawing on structured and unstructured data sources



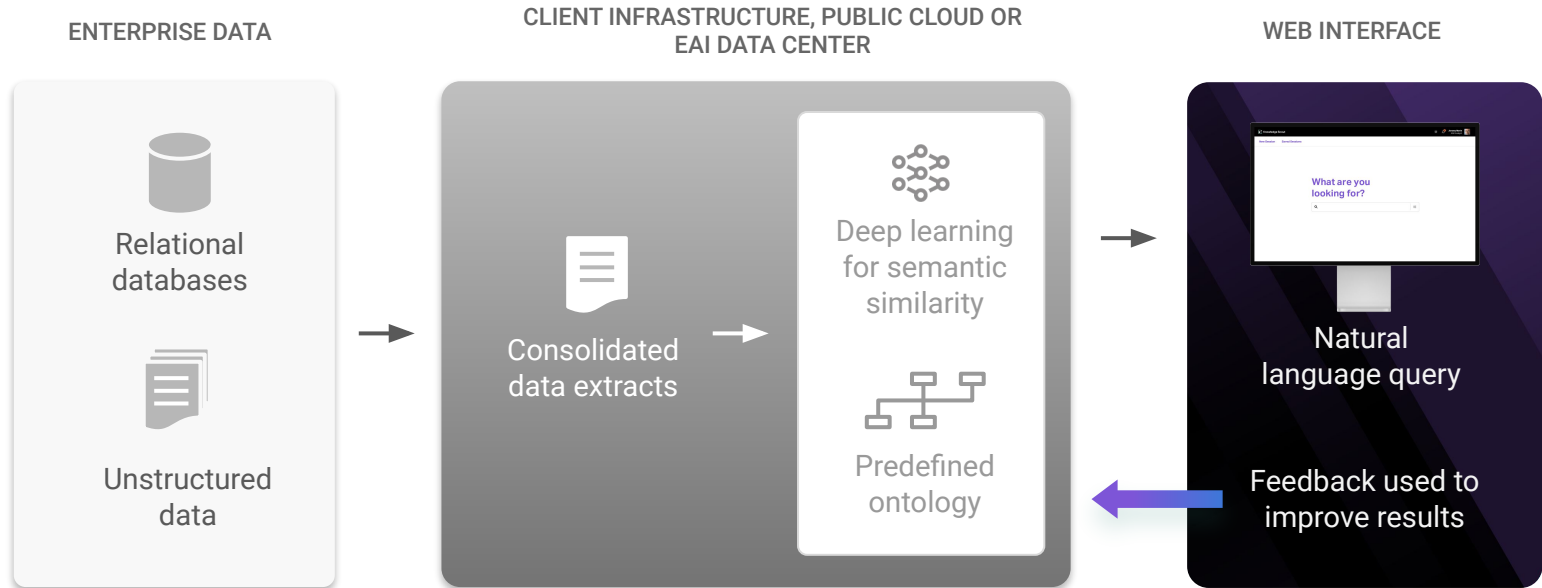


HOW IT WORKS

Semantic similarity search helps uncover new patterns

- ✔ **Find similar semantic content**
Combination of novel AI adaptations alongside familiar techniques used in classical keyword search algorithms to query documents.
- ✔ **Ranking keyword overlap and semantic similarity**
To improve relevance of the results, ranking balances overlap of keywords with semantic similarity. Hence, good result might not share same wording.
- ✔ **Identifying the most important sentence**
Extracts the sentence that summarizes best the content of the document based on the search query to quickly scan through results.
- ✔ **Training on generic and domain-specific corpus**
Indexing of documents is made by a domain-specific embedding model, pre-trained on both generic and biomedical corpuses, to leverage domain expertise when searching

Knowledge Scout is allows users to make natural language queries via a web interface on a predefined data set of structured and unstructured data





A typical use case for Knowledge Scout involves a complex data ecosystem with highly trained experts

- 1 Variety of data types
- 2 A variety of unique data sources
- 3 Highly-trained, expert level user/s
- 4 Excess time invested in data gathering and processing
- 5 Critical thinking is central to the decision-making process and should not be automated

Knowledge Scout can be applied to **key use cases in multiple industry verticals**

SAMPLE USE CASES	Quality deviation management in Manufacturing	Claims fraud detection in Insurance	Customer/market intelligence in Sales & Marketing	Procurement strategy and supplier management in Supply Chain
DESCRIPTION	Deviation investigation time to lower downtime and assess CAPA effectiveness by identifying deviation recurrence	Assess fraud patterns across multiple data sources and apply historical learnings to cut cost in claim review, lower losses due to unnecessary payouts	Analyze various sources of market and customer data to surface trends and opportunity to boost marketing, sales and development efforts	Aggregate data around suppliers and identify pattern and trends to cut cost when negotiating pricing and payment terms
ILLUSTRATIVE KNOWLEDGE SCOUT QUERY	<i>"Show me similar deviation reports to this case with a root cause related to human impact and major criticality in the last 3 years"</i>	<i>"Which practitioners have charged us for more than 24 hours of treatments in a single day?"</i>	<i>"Which competitors have a similar offering and show growth over 10% in the APAC region last year?"</i>	<i>"What IT vendors in North America have similar payment terms to this provider?"</i>

Find out how Knowledge Scout can unlock the value of your information

FOR MORE INFORMATION

Contact the Element AI Team

elementai.com or Geoff@elementai.com

ELEMENT^{AI}