HUMA.AI

ACCELERATE LIFE SCIENCE INSIGHT CREATION

USING DOMAIN-SPECIFIC GENERATIVE AI

PAIN: IT IS DIFFICULT TO GET INSIGHTS OUT OF HEALTHCARE LIFE SCIENCE DATA

Data Challenges

- Highly Regulated Industry
- Complex and siloed data
- 80% of data is unstructured (documents and free-texts)

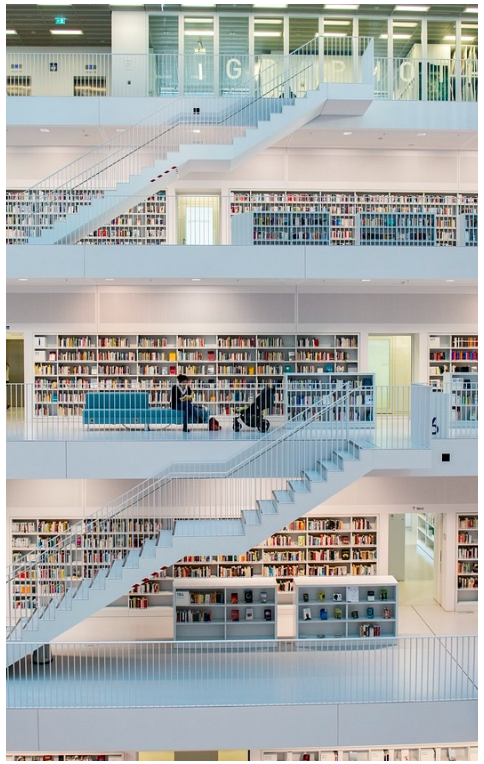
Manual Curation

- Reliance on SME's manual curation
- Labor intensive and Error-prone
- Leaves many mission-critical questions unanswered

Ideal for GenAI Applications

- Accelerate and automate the curation of life science data
- Generate critical insights in minutes
- Accelerate the development of new medicine.

NOW GET INSTANT ANSWERS FROM MULTIPLE DATA SOURCES



1. Time to Value
   Shortens TTV from months to minutes

2. Resource Savings
   Effectively deploy experts to strategic areas and save up to 35 expert resources

3. Systems approach to GenAI to increase accuracy
   NLP + LLMs + Expert-in-the-loop takes accuracy to >95% (from 70%) and provides citations

HUMA.AI USE CASES

Systematic Literature Review

- Days/weeks to minutes
- Accuracy from 70% to 95% based on customer's validation
- level insights, trending and related knowledge base (not possible before)
- Freeing up 30 experts to do higher value activities
- *2-3 times boost in engagement**

Automated SRL and Document Generation

- Days/weeks to minutes
- Multiple data sources
- 50-70% savings*
- 50-70% reduction in time to deliver*

Medical Affairs Insights

- Muti-fold increase in capture/understanding of insights. Currently only 1% insights are analyzed.*
- Accuracy from 75% to 98% based on customer's validation
- 50-70% savings from manual curation*
- 50-70% reduction in time to deliver*

Clinical Trials*

- 10-20% faster enrollment
- 20% cost reduction
- Pre-feasibility Analysis
  - 10% increase in trial success
  - 20% reduction in trial cost and duration
  - Time to approval acceleration by 1-2 years

https://www.mckinsey.com/industries/life-sciences/our-insights/generative-ai-in-the-pharmaceutical-industry-moving-from-hype-to-reality

LEADING GENERATIVE AI PLATFORM FOR LS

NLP + LLMs + Expert in-the-loop = Accuracy + Transparency

PROUD TO PARTNER WITH Microsoft
Microsoft for Startups
Pegasus Program

Founded as NLP/AI Company in 2018	OpenAI Collaboration since 2022	Deployed a Validated GenAI in Q4 2022	Recognized by Gartner	Unique Approach & Capability
		Medical affairs solution deployed to multiple global pharma clients	Cited by Gartner as a **leading GenAI vendor in 26 Hype Cycle Reports**, along with Microsoft, OpenAI, Google and others	Pipelined approach to GenAI Combine NLP, LLMs and expert in the loop to eliminate hallucinations Citations to provide transparency

EXAMPLE:

LITERATURE ANALYSIS

(EXTERNAL INSIGHTS)

LITERATURE REVIEW IS *MISSION CRITICAL*

But it is Labor Intensive and Error Prone

Drug Discovery & Development

- Identifying Research Gaps and Opportunities
- Understanding Disease Mechanisms
- Evaluating Pre-existing Data

Regulatory Compliance & Approval

- Supporting Regulatory Submissions
- Post-Market Surveillance

Clinical Trials

- Accelerate the design of clinical trials
- Feasibility
- Ethical Justification

Medical Affairs

- Evidence generation
- Scientific communications
- Education and training

Market Analysis and Strategy

- Competitive Intelligence
- Market Needs Assessment
- HEOR

Precision Medicine

- Business Development
- Biomarkers

HUMA.AI: LITERATURE ANALYSIS/EVIDENCE SOLUTION

Deep Analysis with GenAI suggested adjacent topics

Ask pointed questions or use existing search criteria in refining search

Narrow down to Regions of Interests from each paper

Use GenAI to extract higher level trending, insights or related topics

Search Criteria → Surface Relevant Paper → NLP Analysis → Generative Analysis → Higher Level Intelligence

Multiple Data Sources Such As PubMed and PMC, can add EMBASE and others

Key takeaways and summaries for each paper
Key takeaways and summaries of entire collection of papers
Citations

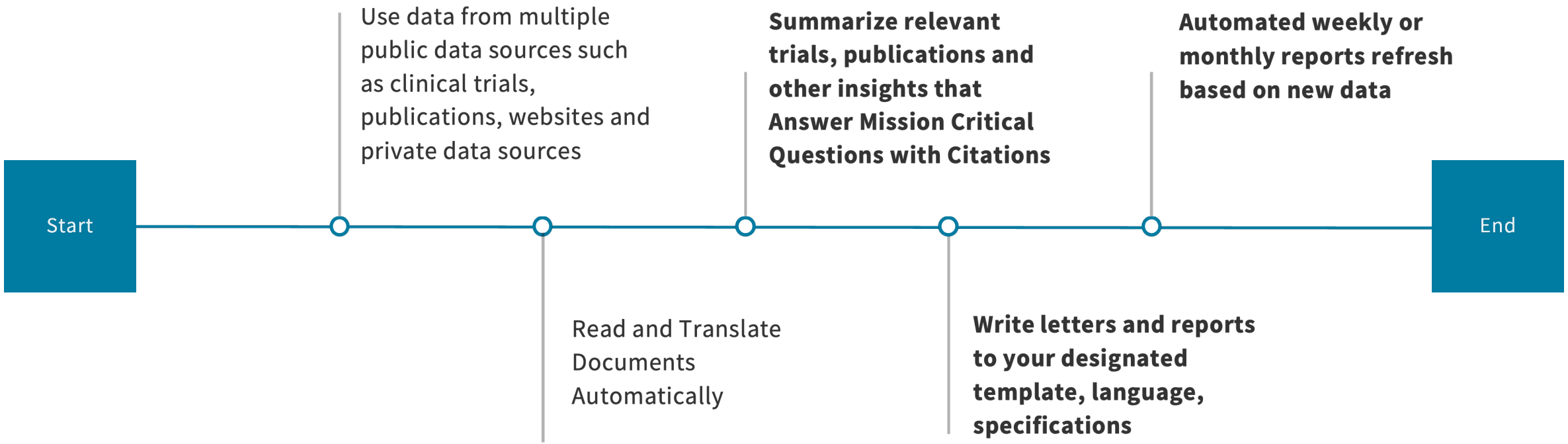
Clinical Trials

Web

EXAMPLE:

WRITING SCIENTIFIC REPORTS

WRITE DOCUMENTS BY PULLING INSIGHTS ACROSS MULTIPLE DATA SOURCES



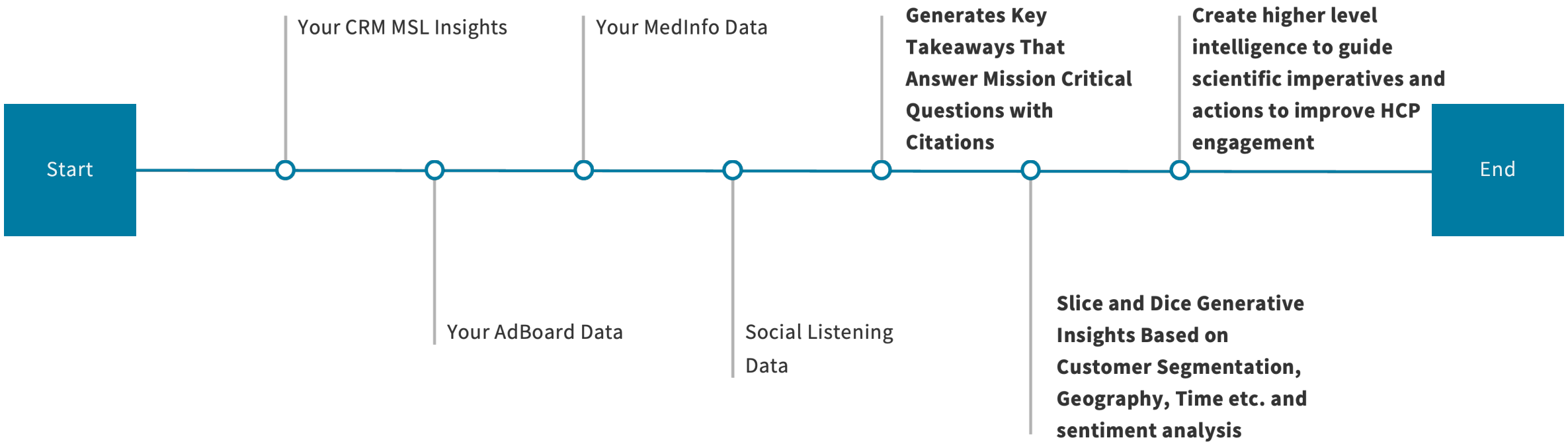
EXAMPLE:

MEDICAL INSIGHTS

(INTERNAL DATA)

INSIGHTS ACROSS *PRIVATE* DATA SOURCES

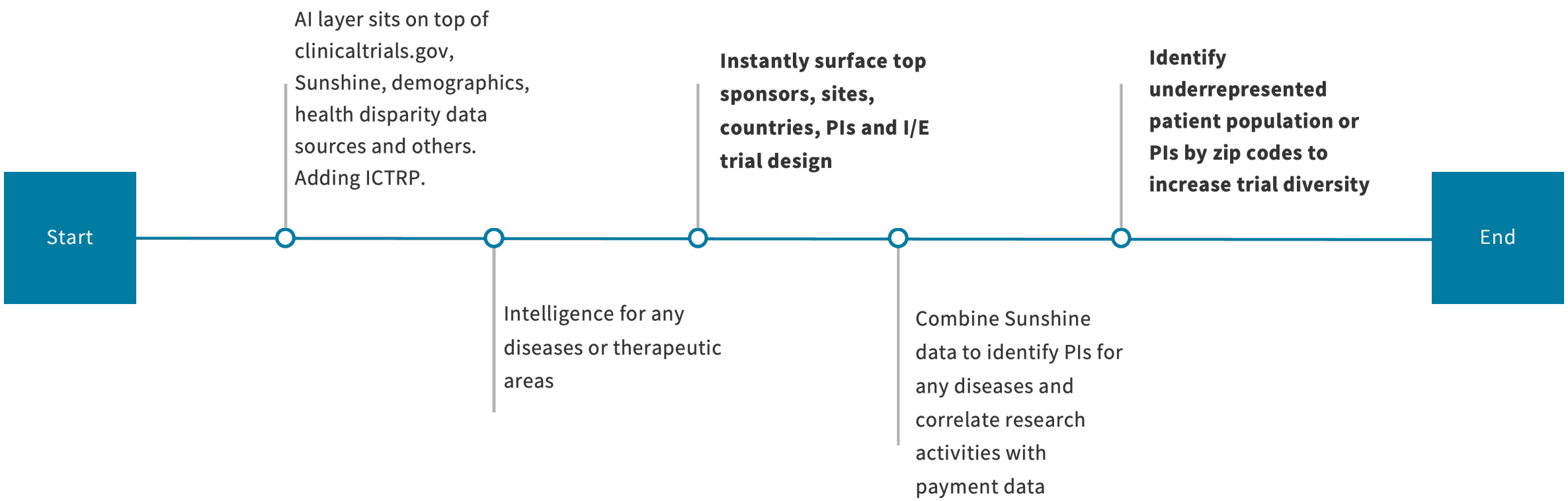
NLP + LLMs + Expert in-the-loop = Accuracy and Transparency



EXAMPLE:

CLINICAL TRIALS

CLINICAL TRIAL COMPETITIVE INTELLIGENCE



CLINICAL TRIAL PATIENT RECRUITMENT

Use current patient selection criteria to generate patient matches or run "what if" scenarios

EHR, claims and hospital records are ICD and CPT code based (structured data)

Automatically extracts and categorize free-form patient selection criteria and then generate all the patient codes associated with the categories