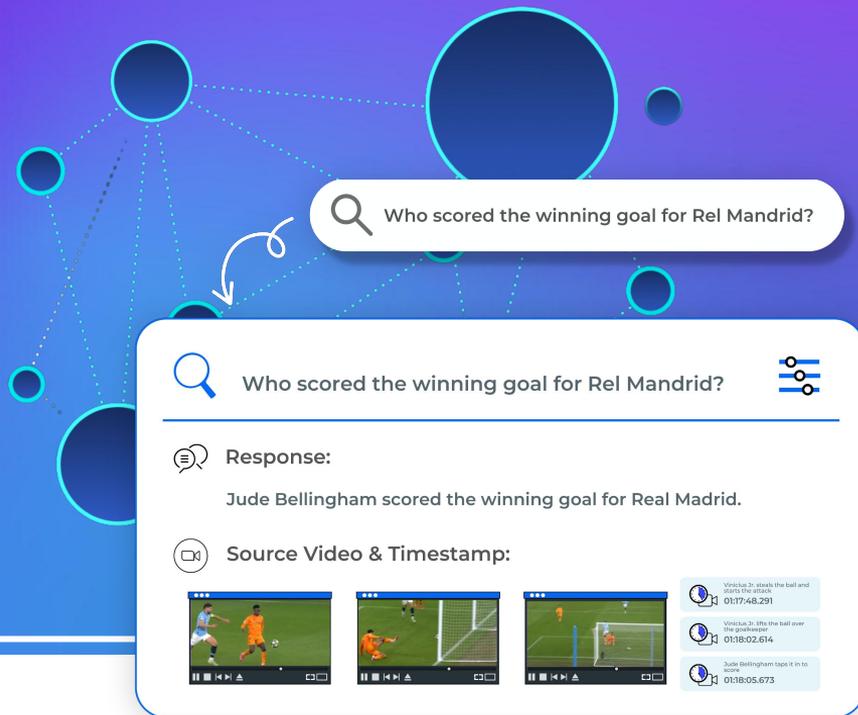


## Multimodal Video Understanding Model for Media Search

AI + Semantic Embeddings + Knowledge Graph



Who scored the winning goal for Real Madrid?

Who scored the winning goal for Real Madrid?

**Response:**  
Jude Bellingham scored the winning goal for Real Madrid.

**Source Video & Timestamp:**

- Video 2: steals the ball and starts the attack 01:17:48.291
- Video 3: hits the ball over the goalkeeper 01:18:02.614
- Jude Bellingham taps it in to score 01:18:05.673

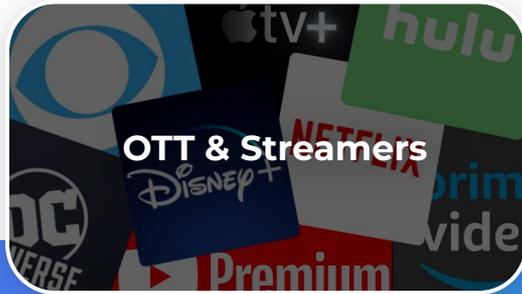


## **30–50%** Time Wasted

Manual tagging makes finding footage slow and unreliable.

## **Keywords Fall Short**

No understanding of who, what, where, or why.



## **12–14 min** to Press Play

Long search times drive drop-offs and churn.

## **49%** Risk of Churn

Users leave when content is hard to find.



## **80%** Unstructured Media

Video, audio, and images remain invisible to text search.

## **No Semantic Links**

Insights stay buried across media and meetings.

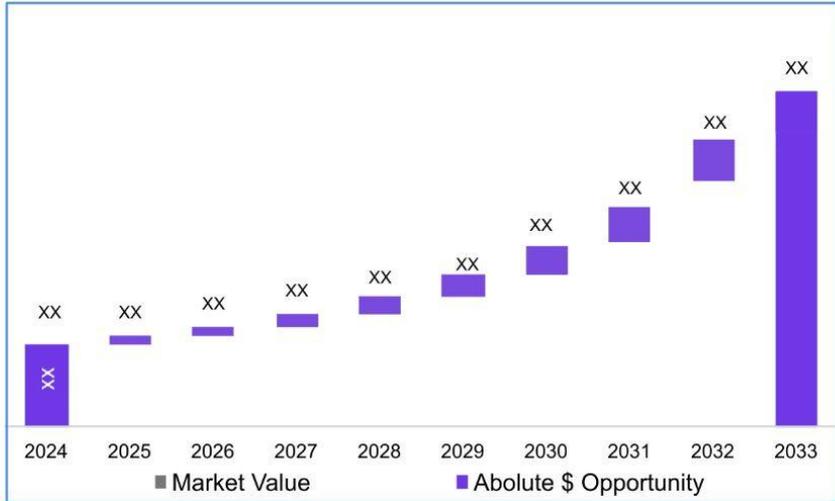


# 1

## Semantic Search Platform Market:

Estimated at ~\$6.4 B in 2024, projected to reach ~\$45.3 B by 2033 (~21.7% CAGR).

**Global Semantic Search Platform Market**  
Market Absolute \$ Opportunity, in USD Million, 2024-2033

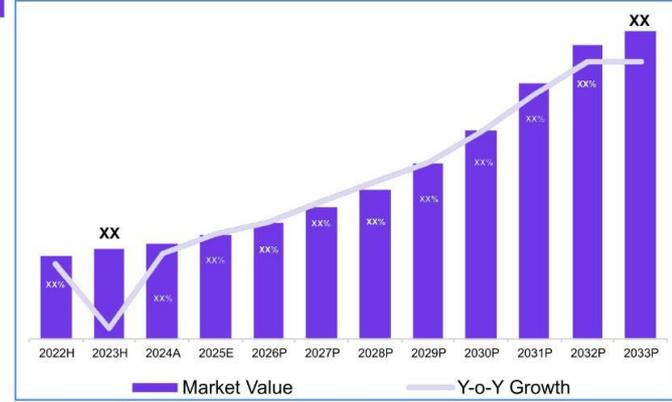


# Global Semantic Search Platform Market Size & Forecast

## Global Outlook

### 2022-2033

**Global Semantic Search Platform Market**  
Market Size (USD Million), Forecast and Y-o-Y Growth, 2022-2033



#### By Component

Software  
Services

#### By Deployment Mode

On-Premises  
Cloud

#### By Application

E-commerce  
Healthcare  
BFSI  
Media and Entertainment

#### By Enterprise Size

Small and Medium Enterprises  
Large Enterprises

# 2

Global AI in media & entertainment market size is projected to grow from ~\$26 B in 2024 to ~\$99.5 B by 2030 (CAGR ~24.2%).





# The Unique Value of Semantic Graph Search

*Smarter search powered by meaning and relationships.*



## **2X** Faster Search

Meaning-based search retrieves results faster than keyword search.

## **87%** Better Accessibility

More content becomes discoverable with connected metadata.

## **Lower Compute** at Scale

Relationship-based queries avoid full data scans.

## **0** Manual Tagging

Entities and relationships are created automatically.



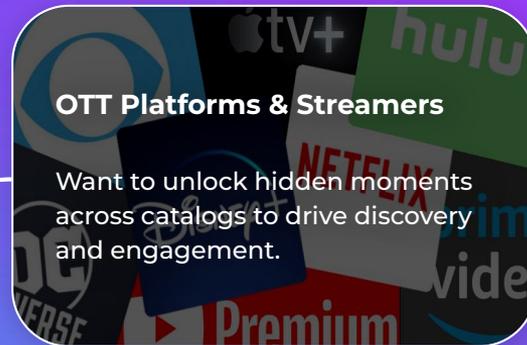
## Multimodal Semantic Graph Media Search

AI + Action Embeddings + Semantic Knowledge Graph

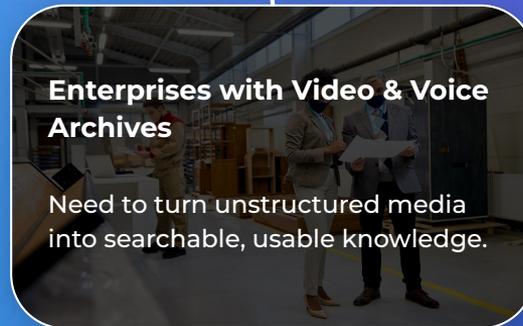


Scene-level semantic search using AI vision, speech, & knowledge graphs.

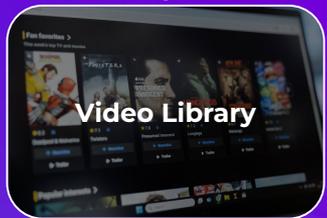
Context-aware indexing of scenes, dialogue, entities, and relationships.



Knowledge graph-driven media search across video, audio, and transcripts.



# Semantic Graph RAG Media Search Workflow

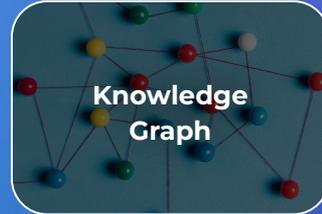


**1** Audio transcripts

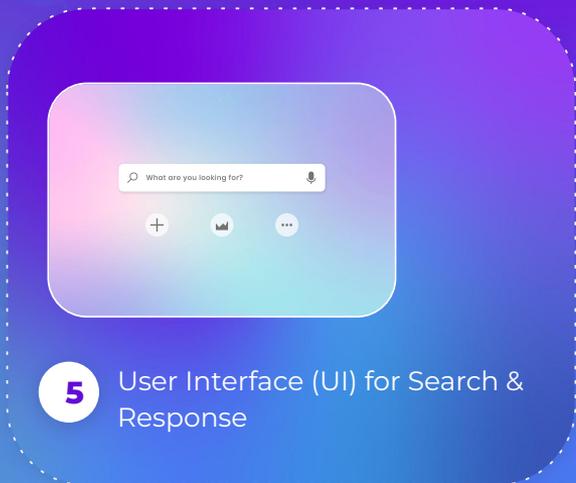
**2** Generate Embeddings

**3**  
Semantically generate nodes & relationships for the specific video & audio description.

Nodes & Relationships



**4** Access RAG + Knowledge Graph + LLM



# Case Study

Slow, inconsistent searches and high costs made finding relevant clips time-consuming.

1-hour video processed in  
**~5 minutes.**

**80% faster scene retrieval**  
than manual or metadata search.

**10x cost-effective**  
than any other AI search solution.

Semantic Graph  
search into MAM

Deployed on-premise

The screenshot displays a search interface with the following elements:

- Search Bar:** Contains a dropdown menu set to "Text Search", the search query "black car entering the scene", a dropdown menu set to "All Groups", and a "Search" button.
- Search Options:** Includes a "Sort By:" dropdown set to "Relevance" and a "Results Limit:" dropdown set to "20". There are also "Apply Filters" and "Reset" buttons.
- Results:** A message states "Found 20 results in 0.03s". A "Batch Download" button is visible in the top right of the results area.
- Clip Grid:** Six video clips are displayed in a 2x3 grid, each with a thumbnail, title, and metadata:
  - Clip 1:** meridian.mp4, Scene: 37, Time: 3:18 - 3:24, Database: Openmovies
  - Clip 2:** tearsofsteel.mp4, Scene: 112, Time: 8:07 - 8:09, Database: Openmovies
  - Clip 3:** meridian.mp4, Scene: 55, Time: 4:32 - 4:54, Database: Openmovies
  - Clip 4:** meridian.mp4, Scene: 56, Time: 4:54 - 5:36
  - Clip 5:** meridian.mp4, Scene: 38, Time: 3:24 - 3:58
  - Clip 6:** meridian.mp4, Scene: 1, Time: 0:00 - 0:01

Impact



## Customers / Partners

Primary customers with large, unstructured media archives and time-critical discovery needs.



TeclaSystem



DeweyVision™



## Meet Our Leadership Team

The team comprises 20+ in-house Data Scientists and ML/AI Engineers across the USA and India, with sales operations in the USA, UK, Europe, Brazil, Japan & India.



**Chakra Parvathaneni**

Founder and CEO

- Former President - **Imagination Americas**.
- Co-founder - **Posedge Technologies**, which was acquired by **Imagination Technologies**.
- Has over **20 years of experience** in the semiconductor and software industries.



**Nagaraj Krishnamurthy**

VP, Software

- Senior Engineering Roles at **Qualcomm**, **Broadcom**, **Harman**, **Texas Instruments**.
- Has over **20 years of experience** in the semiconductor and embedded systems.



**BACKUP**



## Why our approach wins

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**Contextual recall** - Finds related footage even without exact keywords.



**Faster time-to-answer** - Reduces manual hunt and stitching across sources (enterprise case studies & research demonstrate significant time savings when semantic/graph search is used).



**Explainability & governance** - Graphs make lineage/audit of AI outputs traceable.

