

Realities today

Fact #1: Video is the KING of content

According to a Cisco Visual Networking Index (VNI) Complete Forecast, videos will reach the following statistics by 2021:

- Video will represent 80% of all Internet traffic (up from 67% in 2016)
- 1.9 billion Internet video users (up from 1.4 billion in 2016)
- 5 million years of video being watched per month

On top of these, YouTube sees more than 300 hours of videos uploaded every minute. That's 18,000 years' worth of videos in a single year. And that's just YouTube ONLY! If we add all other videos in the public domain, we wouldn't even know where to start with the numbers.

However, the bigger numbers could actually be hidden in the private domain from sources like broadcasters, media companies, CCTVs, GoPros, bodycams, smart devices, etc. In short, we are recording and consuming videos at an unprecedented speed and scale.

Fact #2: Search is a BASIC human need

According to Internet Live Stats as of October 2019, Google handles around 77,500 queries per second. This translates to about:

• 2.4 trillion searches a year (and is estimated to grow 10% annually)

If we assume that everyone in the world, with a population of 7.5 billion, has access to a search engine, then each of us will be using a search engine at least once a day.

More importantly, these numbers for 'Video' and 'Search' are experiencing <u>exponential growth</u>, especially with the advent of 5G, which will provide a even bigger pipeline for video traffic. So the question is:

Can enterprises afford not to have a video strategy?

Videospace

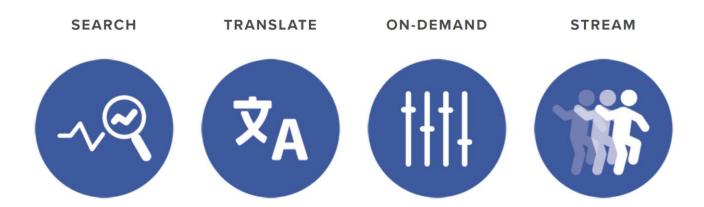
Understanding the realities, Videospace is combining these two global trends into "Video Search". However, one must remember that video is the MOST difficult format to search and index. This explains the lack of solutions today with ability to search content inside videos.

We developed one of the world's most advanced Al-infused Video Search Engine. Using various forms of Al to extract various types of video data (like speech, text, face, objects, emotions, etc.), index and make them searchable.

Videospace's unique value proposition is our ability to Extract and Search video data at speed and scale.

VideoSpace is the next generation Video Platform using Artificial Intelligence (A.I.). With these new technological possibilities, VideoSpace created 4 innovative offerings:

- Search
- Translation
- On-Demand
- Stream



The REAL question is...

How can we extract VALUE from videos?

The problem with video is that it is the most difficult medium to work with and to extract data from. There are a few reasons why:

- Videos are not static
- There are many elements inside a video (speech, text, faces, objects, etc)
- Difficult to extract the various elements of video data
- Each element requires a different data extraction technique
- It is very difficult to make sense of video data because of its unstructured nature
- It's expensive to extract data at scale
- Video data are time-series based

These problems are real. However, with the various advances in the field of Artificial Intelligence, we are beginning to have an appreciation of the numerous issues we are facing.

With the substantial and combination of different branches of Artificial Intelligence, VideoSpace is beginning to crack this enigmatic problem and created four **World's First** focusing on video search.



Unified Search Engine

Over 60 digital formats of documents, images, audio and video! #2



Video Search as a Search

Extracts 8 types of video data elements.

#3



Interactive Video Search Results

Video search results using an interactive media player. #4



Translated Video Search

Search videos in another language. Approximately 6,000 language pairs.

What Kind of Video Data?

Videospace is a Video Al latform that extracts, index and search various kinds of video data elements. The following briefly examines our methodology on how we extract and search data from videos.



1. Speech

In a hour of video, a person can say up to 9,000 words. Imagine the amount of data just from speech alone. However, the process of transcribing speech is filled with problems and we are currently only starting to get an acceptable level of accuracy.

2. Text

Besides speech, text is probably the second most important element inside videos. For example, in a presentation or lecture, besides speech the speaker would augment the session with a set of slides. Or news tickers appearing during a news broadcast.

3. Objects

There are thousands of objects inside a video within different timeframe. Therefore, it can be quite challenging to identity what objects are in the video content and in which scene they appear in.

4. Activities

The difference between video and still images is motion. Different video scenes contain complex activities, such as "running in a group" or "driving a car". Ability to extract activities will give a lot of insight what the videos are about.

5. Motion

Detecting motion enables you to efficiently identify sections of interest within an otherwise long and uneventful video. That might sound simple, but what if you have 10,000 hours of videos to review every night? That's a near impossible task to eyeball every video minute.

6. Faces

Detecting faces from videos adds face detection ability to any surveillance or CCTV system. This will be useful to analyze human traffic within a mall, street or even a restaurant or café. We can include automatic facial recognition of celebrities or famous people.

7. Emotion

Emotion detection is an extension of the Face Detection that returns analysis on multiple emotional attributes from the faces detected. With emotion detection, one can gauge audience emotional response over a period of time. It's great for behavioral analytics for situations like focus groups, interviews or even interrogation.

8. Custom Search

Looking for something specific? Perhaps a specific logo, landmark or object? It is possible to train the VideoSpace Al Video Search Engine to search for something specific to your need.

Digital Transformation - Use Cases

Media Libraries - Videospace can search videos in over 100 languages. With our proprietary Translated Search, we are able to search in over 6,000 language pairs. Making media libraries discoverable!

Lectures and Conferences – Videospace is able to extend these talks and speeches to a wider audience at a fraction of current cost, with features like auto-translation and auto-tagging.

Video SEO and Marketing - Using Text Analytics, Videospace is able to auto-generate massive amount of SEO from videos in multiple languages.

Public Safety and Surveillance - Videospace can be added to any standalone CCTV system to analyze video footages.

Analyze Foot Traffic - Using Facial AI, we are able to track up to 64 unique faces in a single frame. On top of that, we are able to provide demographic data like age and gender.

Understand Sentiment – Sentiments can be understood via facial expressions and speech. The ability to capture both gives two set of data points to validate the results.

Compliance - Detection of potential offensive content. Filtering of possible profanity and undesirable text. Moderation of adult and racy content.

Custom Search - For cases where our current AI models could not detect, we will be able to machine-train and perform custom search for things like logos, landmarks, objects, etc.

Industrial Transformation

Enterprise - Videospace has multiple applications for Enterprises, particularly in Market Research, Communications, Training, Video SEO. Video Big Data. Click here for more.

Conferences - The industry is riped for disruption. Videospace provides a platform a set of automated features (like auto-translation) that enables events to have a wider global audience. Click here for more.

Broadcast and Media - Videospace addresses an existing need to search and re-purpose existing video content for new sources of revenue for media networks. Click here for more.

Education and Learning - Videospace is the ideal platform for "Knowledge Discovery" which plays an important part in Learning and Training. Click here for more.

Government - Videospace can be utilized by various agencies which have an immediate need for a media search engine. Archives, Political Arena, Communications, Intelligence, etc. Click here for more.

GLAM (Galleries, Libraries, Archives and Museums) - Videospace unlocks hundreds and thousands of hours of knowledge within your media libraries by making them accessible and discoverable. Click here for more.

Discover new frontiers and business models from digital transformation with Video A.I.

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