Using Cognitive Services and Machine Learning to Empower Your Fundraising

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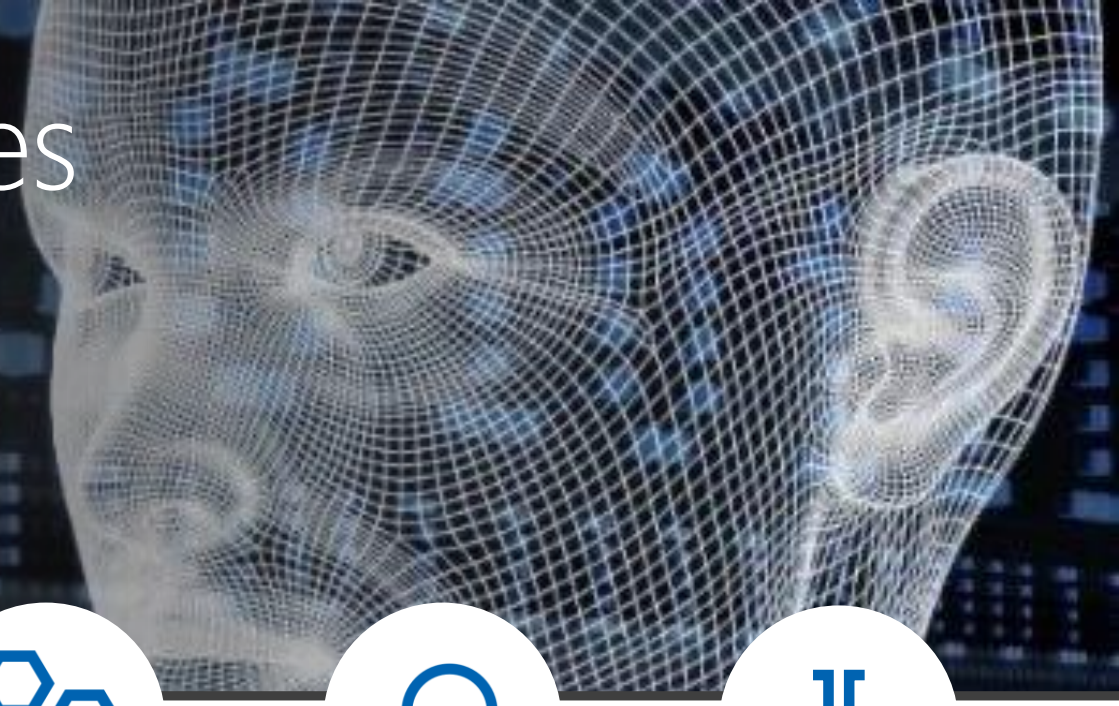
HI!

Microsoft Cognitive Services

Give your apps a human side



Vision

From faces to feelings, allow your apps to understand images and video

Speech

Hear and speak to your users by filtering noise, identifying speakers, and understanding intent

Language

Process text and learn how to recognize what users want

Knowledge

Map complex information and data in order to solve specific tasks

Search

Access billions of web pages, images, videos, and news with the power of Bing

Labs

An early look at emerging Cognitive Services technologies: discover, try, and give feedback on new technologies before general availability

Why Microsoft Cognitive Services?

Easy

Roll your own with REST APIs

Simple to add: just a few lines of code required

Get a key, Build

Flexible

Integrate into the language and platform of your choice

Breadth of offerings helps you find the right for your app

Bring your own data for your custom experience

Tested

Built by experts in their field from Microsoft Research, Bing, and Azure Machine Learning

Quality documentation, sample code, and community support

Microsoft Cognitive Services updates

Vision

- Video Indexer
- Computer Vision
- Face
- Emotion
- Content Moderator
- Custom Vision

Speech

- Speaker Recognition
- Bing Speech
- Custom Speech
- Translator Speech
- Unified Speech
  - Speech to Text w. Custom Speech
  - Text to Speech w. Custom Voice
  - Speech Translation w. Custom Translator

Language

- Text Analytics
- Bing Spell Check
- Translator Text
- Language Understanding (LUIS)

Knowledge

- QnA Maker
- Custom Decision

Search

- Bing Entity Search
- Bing Autosuggest
- Bing Search
  - Web Search
  - Image Search
  - News Search
  - Video Search
- Bing Statistics add-in
- Bing Visual Search
- Bing Custom Search

Labs

- Project Gesture
- Project Local Insights
- Project Academic Knowledge
- Project Entity Linking
- Project Knowledge Exploration
- Project Event Tracking
- Project Answer Search
- Project URL Preview
- Project Anomaly Finder
- Project Conversation Learner
- Project Personality Chat

Cognitive Services capabilities

Infuse your apps, websites, and bots with human-like intelligence

Vision

Object, scene, and activity detection

Face recognition and identification

Celebrity and landmark recognition

Emotion recognition

Text and handwriting recognition (OCR)

Video metadata, audio, and keyframe extraction and analysis

Explicit or offensive content moderation

Custom image recognition

Speech

Speech transcription (Speech-to-text)

Speech Synthesis (Text-to-speech)

Real-time speech translation

Speaker identification and verification

Custom Speech models for transcription and translation

Custom voice

Language

Language detection

Text sentiment analysis

Key phrase extraction

Entity recognition

Spell checking

Explicit or offensive text content moderation, PII detection

Text translation

Customizable text translation

Contextual language understanding

Knowledge

Q&A extraction from unstructured text

Knowledge base creation from collections of Q&As

Semantic matching for knowledge bases

Customizable content personalization learning

Search

Ad-free web, news, image, and video search results

Trends for video, news

Image identification, classification and knowledge extraction

Identification of similar images and products

Named entity recognition and classification

Knowledge acquisition for named entities

Search query autosuggest

Ad-free custom search engine creation

A variety of real-world applications

Vision

What is in the image or video?

Intelligent Image insights

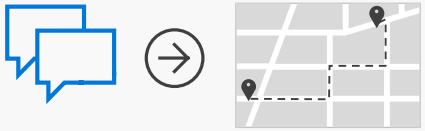
Category	People; 5 faces
Adult/Racy?	False/False
Dominant colors	
Accent color	

Computer Vision

Speech

Give me directions to the nearest local branch

Speech to text



Convert spoken audio to text

Convert text to spoken audio

Extract intent of user

Speech Service

Language

Play today's customer call recording

Natural Language Processing

```
Intent: PlayCall
Content: Customer#
DateTime.date: today
```

Now Playing

11/29/2016 Customer Call

Language Understanding

Knowledge

QnA Pair of this site?

Automatic extraction of questions and answers

What are your hours today?

Today we are open from 7:00 AM to 10:00 PM.

Do you have vegetarian options?

Yes, we have vegetarian options available.

QnA Maker

Search

Search for 'fraud prevention'

Intelligent web search

Information Communications Media Market News

It also investigates the top three expected **Fraud** Detection and **Prevention** programs, in terms of demand in key markets...

The Big Question: In-House or Outsourced Fraud Protection?

First, let's point out that there is not one absolute answer—there are "pros" and "cons" to each. Those who favor in-house...

How to Protect Your Business from Online Fraud this Holiday Season

Michael heads fraud prevention tool. Online and mobile shopping are expected to continue growing apace...

Bing News Search

Vision

Image-processing algorithms to smartly identify, caption, and moderate your pictures

Vision

Computer Vision

Distill actionable information from images

Video Indexer

Process and extract smart insights from videos

Face

Detect, identify, analyze, organize, tag faces in photos, and even recognize emotions

Content Moderator

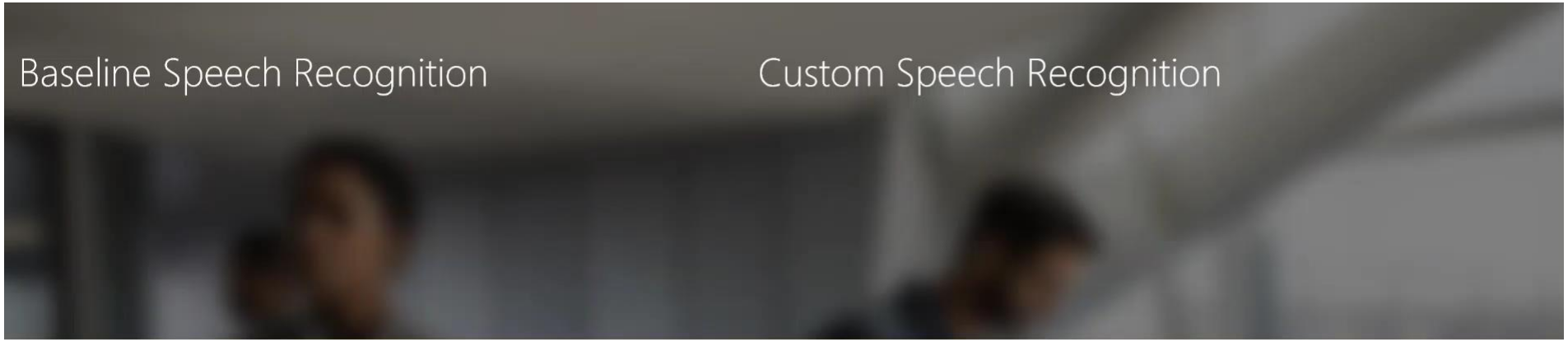
Machine-assisted moderation of text and images, augmented with human review tools

Custom Vision

Customizable web service that learns to recognize specific content in imagery

Speech

Convert spoken audio into text, use voice for verification, or add speaker recognition to your app



Speech

Speaker Recognition

Use speech to identify and verify individual speakers

Translator Speech

Easily conduct real-time speech translation with a simple REST API call

Custom Speech

Overcome speech recognition barriers like speaking style, background noise, and vocabulary

Unified Speech service

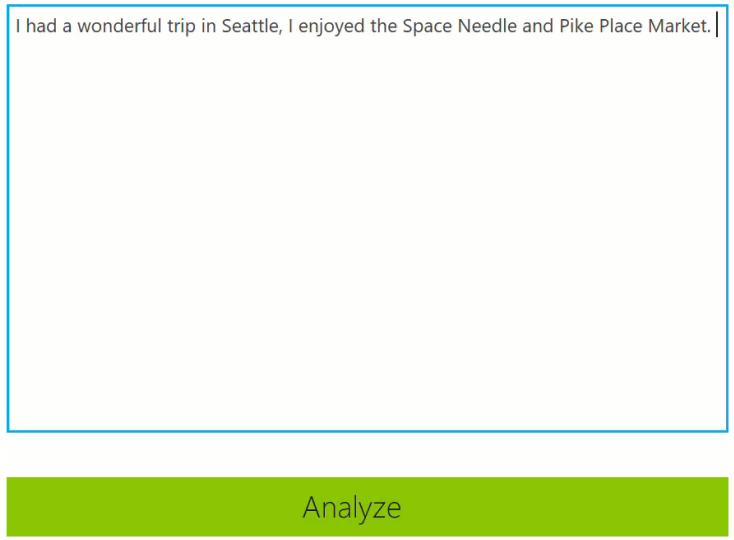
Unified speech service for **speech-to-text** (general and custom speech models), **text-to-speech** (general and custom voice models) and **speech translation** (general and custom translator)

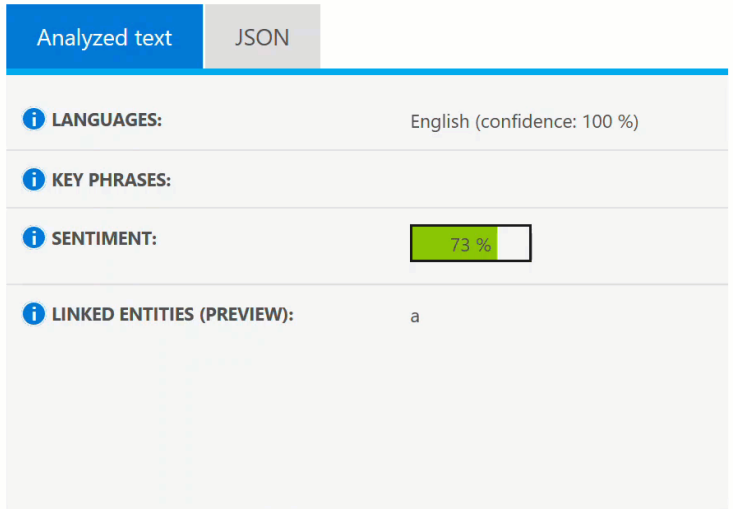
Bing Speech

Convert speech to text and back again to understand user intent

Language

Allow your apps to process natural language with pre-built scripts, evaluate sentiment and learn how to recognize what users want





Language

Text Analytics

Detect sentiment, key phrases, language, and extract top entities from your text

Bing Spell Check

Detect and correct spelling mistakes within your app

Translator Text

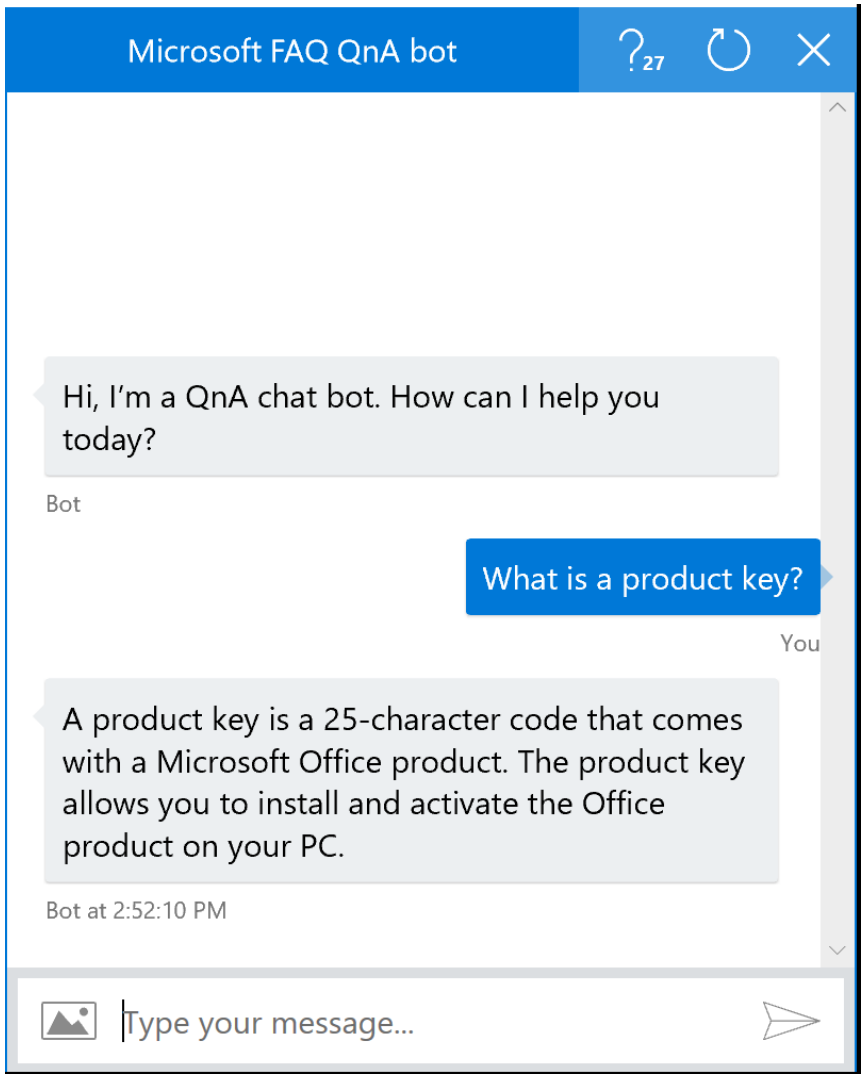
Easily perform speech and text translation

Language Understanding

Teach your apps to understand commands from your users

Knowledge

Map complex information and data in order to solve specific tasks



Knowledge

Custom Decision

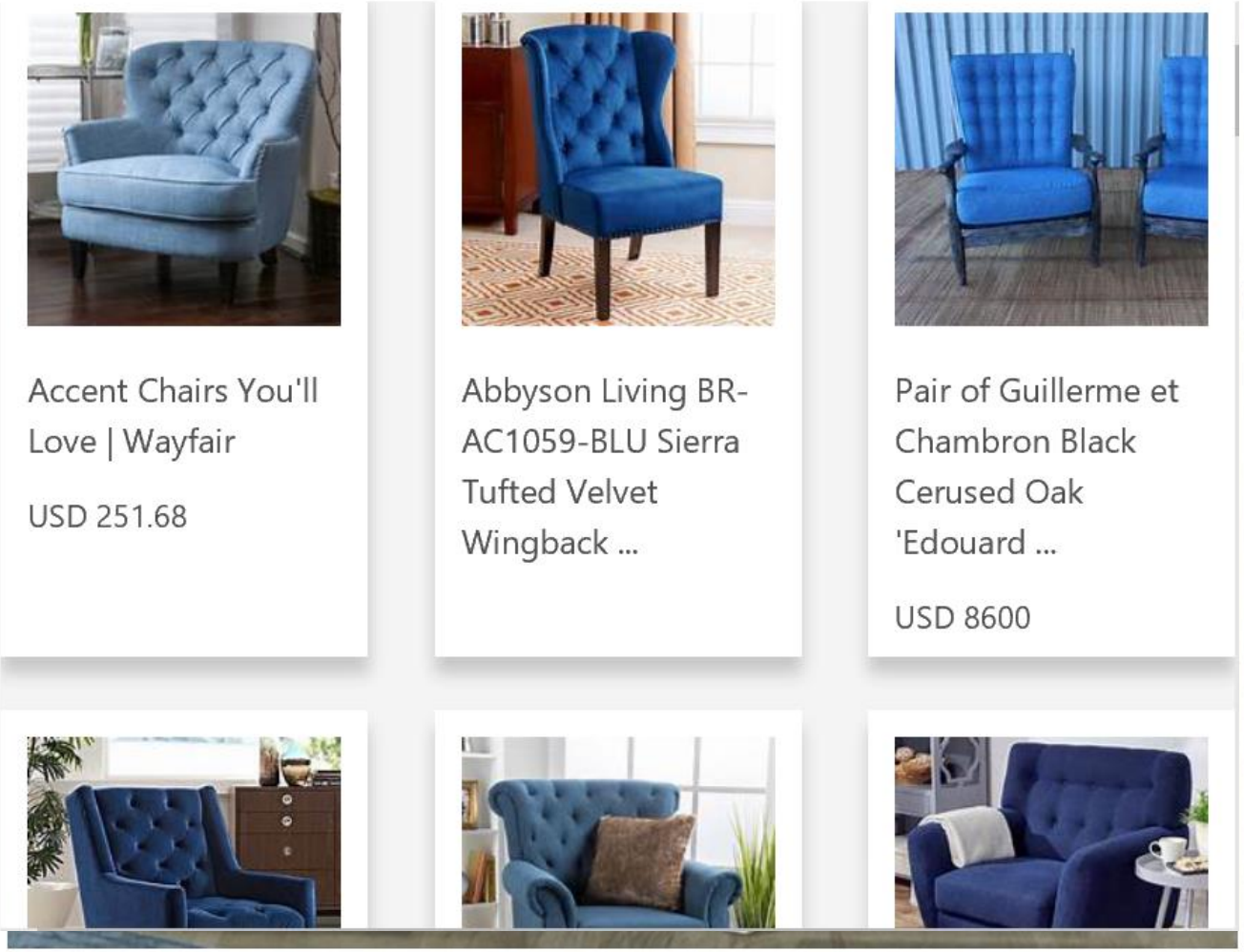
Create custom experiences with adaptive, contextual decision-making

QnA Maker

Distill information into conversational, easy-to-navigate answers

Search

Add Bing Search APIs to your apps and harness the ability to comb billions of webpages, images, videos, and news with a single API call



Search

Bing Search

Web Search
Image Search
News Search
Video Search

Bing Visual Search

Get rich insights to help build compelling image applications on the device of your choice

Bing Entity Search

Enrich user experiences with contextual entity search results

Bing Autosuggest

Give your app intelligent autosuggest options for searches

Bing Custom Search

Create a highly-customized web search experience

Bing Statistics add-in

Get powerful Bing API usage insights in an easy-to-use add-in

Microsoft Cognitive Services Labs

Labs provides developers with an early look at emerging Cognitive Services technologies

Early adopters who do not need market-ready technology can discover, try and provide feedback on new Cognitive Services technologies before they are generally available

Labs are not Azure services

Microsoft Cognitive Services Labs

Project Gesture

Incorporate gesture-based controls into your apps. Quickly define and implement customized hand gestures, creating a more natural user experience

Project Ink Analysis

Cloud APIs to understand digital ink content created by users through document layout analysis and handwriting and shape recognition

Project Local Insights

Score the attractiveness of a location, based on how many of a particular amenity are within a specific distance

Project Event Tracking

Find events associated with Wikipedia entities. Begin with a Wikipedia entity, and receive a list of related events organized by time

Project Answer Search

Enhance the user experience of your sites and applications by instantly answering search queries with relevant facts and results from across the web

Project URL Preview

Preview URLs to show users where they're going and help flag adult content

Microsoft Cognitive Services Labs

Project Conversation Learner

Teach new behaviors to task-oriented conversational interfaces through example interactions

Project Personality Chat

Enhance your bot's conversational capabilities, by handling small talk, in line with a distinct chosen personality

Project Knowledge Exploration

Enable interactive search experiences over structured data via natural language inputs

Project Academic Knowledge

Tap into the wealth of academic content in the Microsoft Academic Graph

Project Entity Linking

Power your app's data links with named entity recognition and disambiguation

Project Anomaly Finder

The Anomaly Finder API helps you to monitor data over time and detect anomalies with machine learning that adapts to your unique data by automatically applying a statistical model

Demonstrations

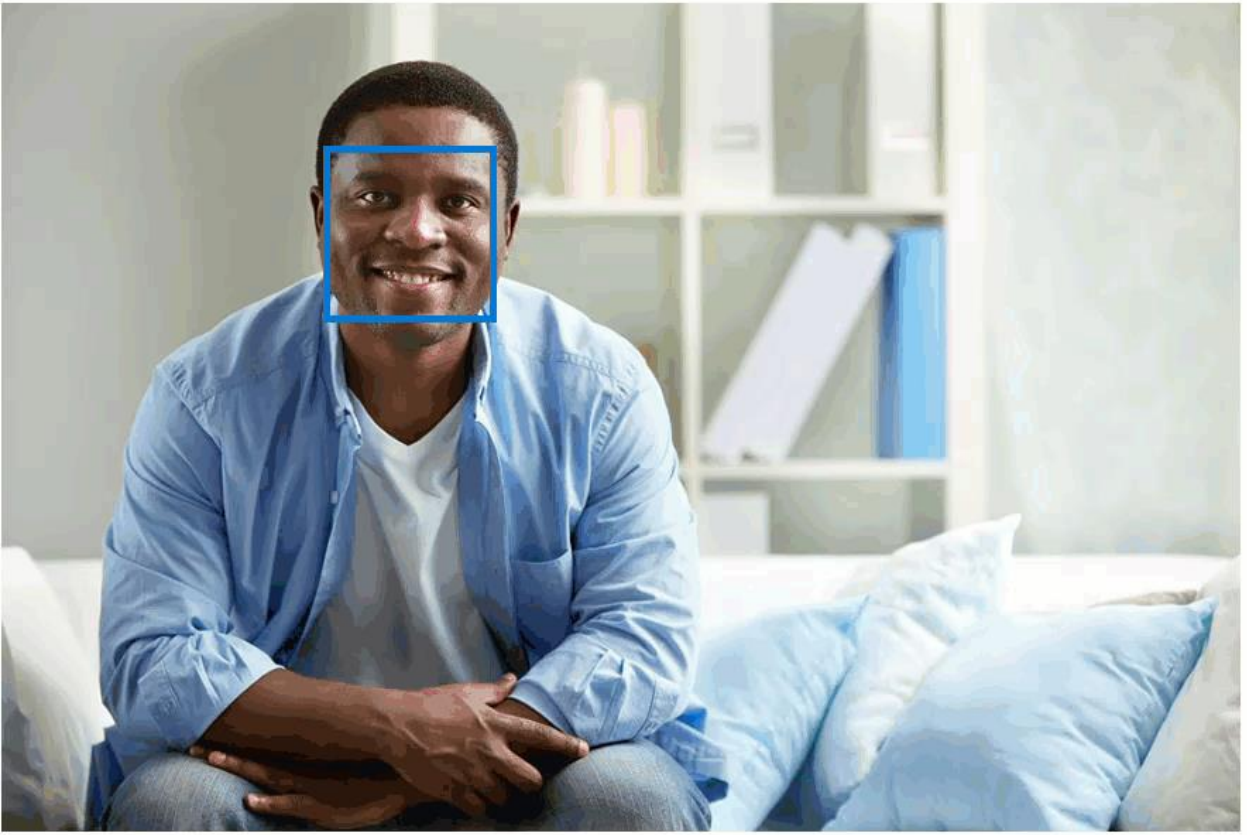
INTELLIGENT KIOSK

Vision

From faces to feelings, allow your apps to understand images and video

Computer Vision | Video Indexer | Custom Vision | Face | Content Moderator

Face




```
    },
    "smile": 1.0,
    "headPose": {
      "pitch": 0.0,
      "roll": 3.2,
      "yaw": 11.4
    },
    "gender": "male",
    "age": 30.0,
    "facialHair": {
      "moustache": 0.4,
      "beard": 0.4,
      "sideburns": 0.4
    },
    "glasses": "NoGlasses",
    "makeup": {
      "eyeMakeup": false,
      "lipMakeup": false
    },
    "emotion": {
      "anger": 0.0,
      "contempt": 0.0,
      "disgust": 0.0,
      "fear": 0.0,
```

Face

Face detection
Detect faces and their attributes within an image

Face verification
Check if two faces belong to the same person

Similar face searching
Find similar faces within a set of images

Face grouping
Organize many faces into groups

Face identification
Search which person a face belongs to

Face

Detection

"faceRectangle": {"width": 193, "height": 193, "left": 326, "top": 204}

…

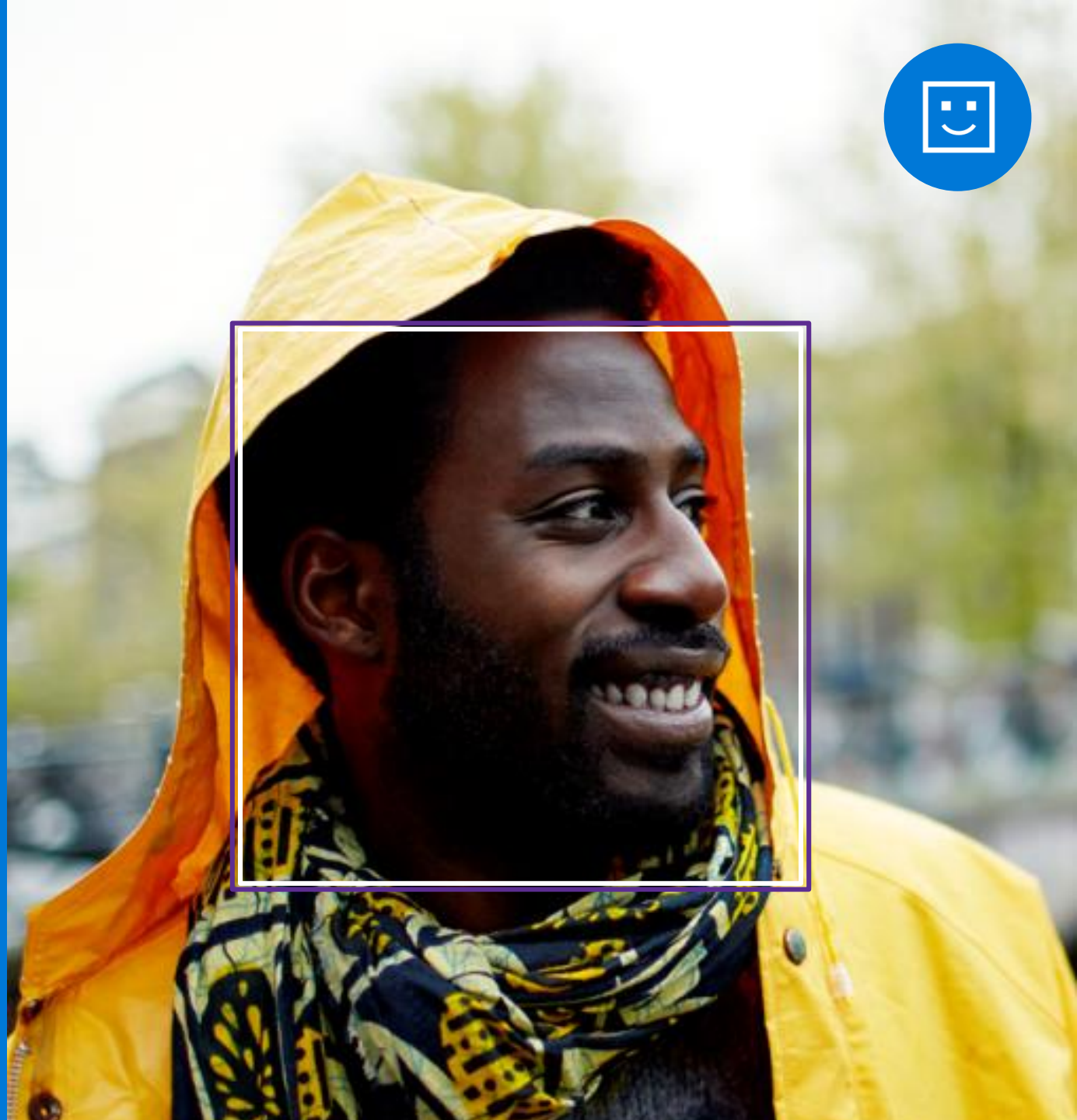
Feature attributes

"attributes": { "age": 42, "gender": "male",
"headPose": { "roll": "8.2", "yaw": "-37.8", "pitch": "0.0" }}

Grouping

Identification

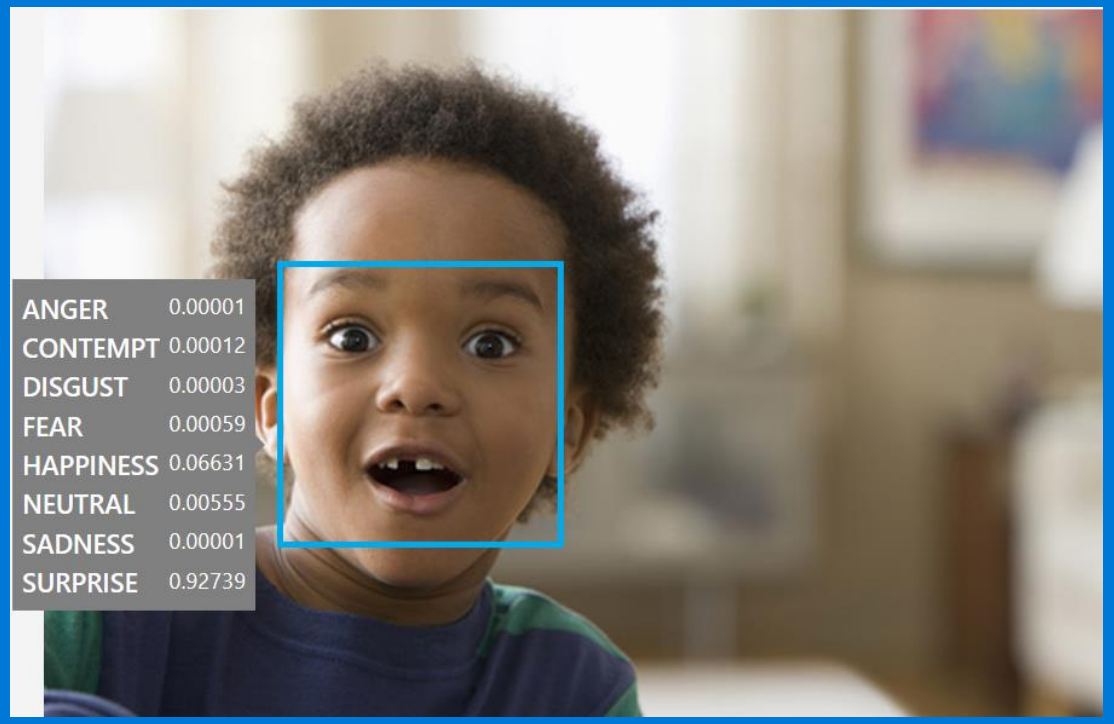
Jasper Williams



Emotion

Recognize emotions

Understand content within an image



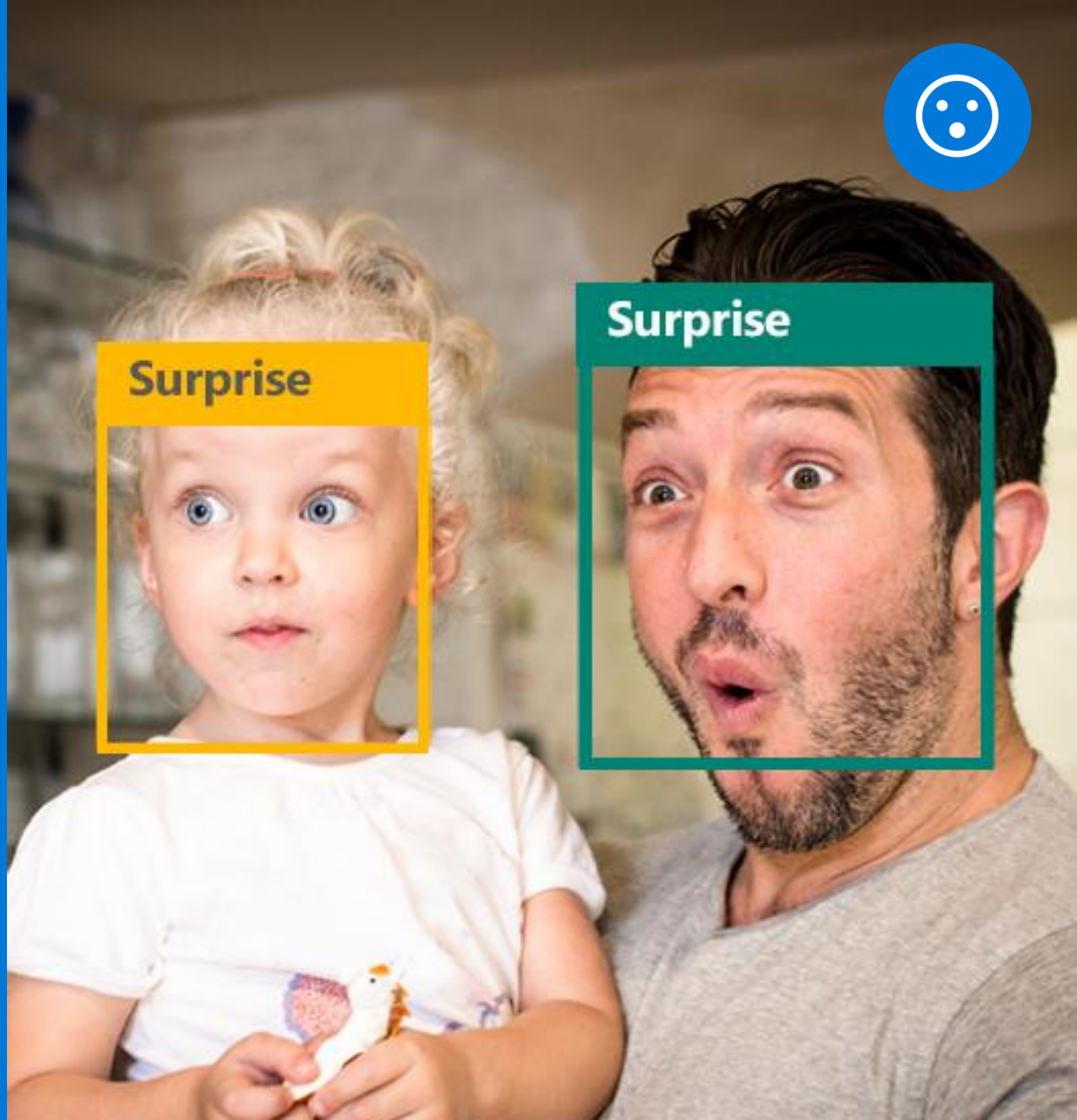
Emotion

Face detection


```
"faceRectangle": {"width": 193,
                  "height": 193,
                  "left": 326,
                  "top": 204} …
```


Emotion scores


```
"scores": { "anger": 5.182241e-8,
            "contempt": 0.0000242813,
            "disgust": 5.621025e-7,
            "fear": 0.00115027453,
            "happiness": 1.06114619e-8,
            "neutral": 0.003540177,
            "sadness": 9.30888746e-7,
            "surprise": 0.9952837}
```

Video Indexer

Unlock video insights

Upload your video and go

Start turning your video into insights right away.

Make your content more discoverable

Enhance content discovery experiences such as search results by detecting spoken words, faces, characters, and emotions

Improve engagement with your video

Metadata extracted by Video Indexer can be used to build powerful engagement experiences with recommendations, highlight clips, and interactive videos

Computer Vision

FEATURE NAME:	VALUE
Description	{ "tags": ["train", "platform", "station", "building", "indoor", "subway", "track", "walking", "waiting", "pulling", "board", "people", "man", "luggage", "standing", "holding", "large", "woman", "yellow", "suitcase"], "captions": [{ "text": "people waiting at a train station", "confidence": 0.833099365 }] }
Tags	[{ "name": "train", "confidence": 0.9975446 }, { "name": "platform", "confidence": 0.995543063 }, { "name": "station", "confidence": 0.9798007 }, { "name": "indoor", "confidence": 0.927719653 }, { "name": "subway", "confidence": 0.838939846 }, { "name": "pulling", "confidence": 0.431715637 }]
Image format	"Jpeg"

Computer Vision

Analyze an image
Understand content within an image

OCR
Detect and recognize words within an image

Generate thumbnail
Scale and crop images, while retaining key content

Recognize celebrities
Thanks to domain-specific models, ability to recognize 200K celebrities from business, politics, sports, and entertainment around the world

Analyze image

Type of image

Clip Art Type	0 Non-clipart
Line Drawing Type	0 Non-Line Drawing
Black & White Image	False

Content of image

Categories	[{ “name”: “people_swimming”, “score”: 0.099609375 }]
Adult Content	False
Adult Score	0.18533889949321747
Faces	[{ “age”: 27, “gender”: “Male”, “faceRectangle”: {“left”: 472, “top”: 258, “width”: 199, “height”: 199}}]

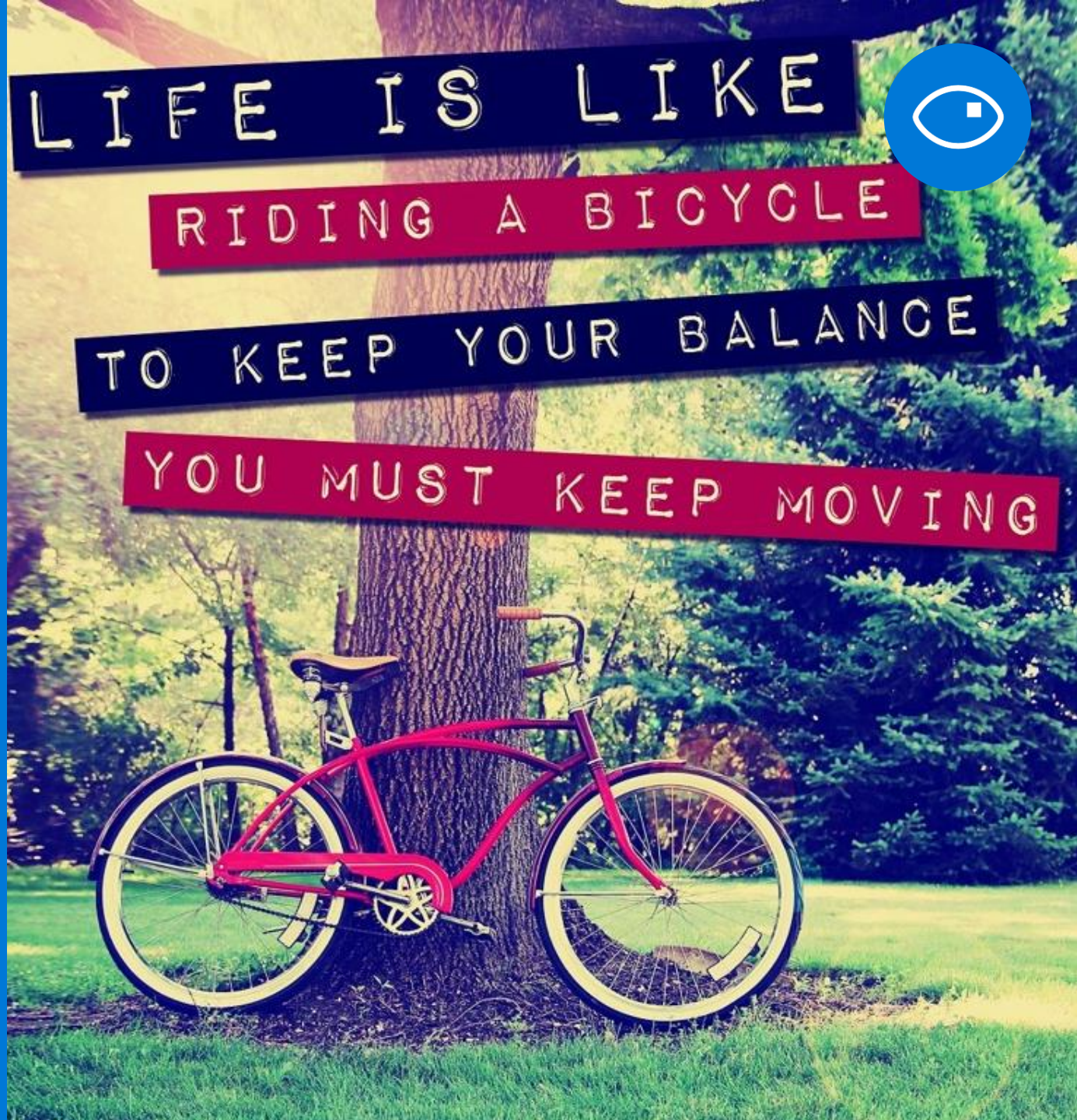
Image colors

Dominant Color Background	White
Dominant Color Foreground	Grey
Dominant Colors	White
Accent Color	

OCR

Life is like riding a bicycle

To keep your balance you must keep moving



OCR

JSON:


```
{
 "language": "en",
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 "regions": [
  {
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   "lines": [
    {
     "boundingBox": "41,77,723,89",
     "words": [
      {
       "boundingBox": "41,102,225,64",
       "text": "LIFE"
      },
      {
       "boundingBox": "356,89,94,62",
       "text": "IS"
      },
      {
       "boundingBox": "539,77,225,64",
       "text": "LIKE"
      }
. . .
```
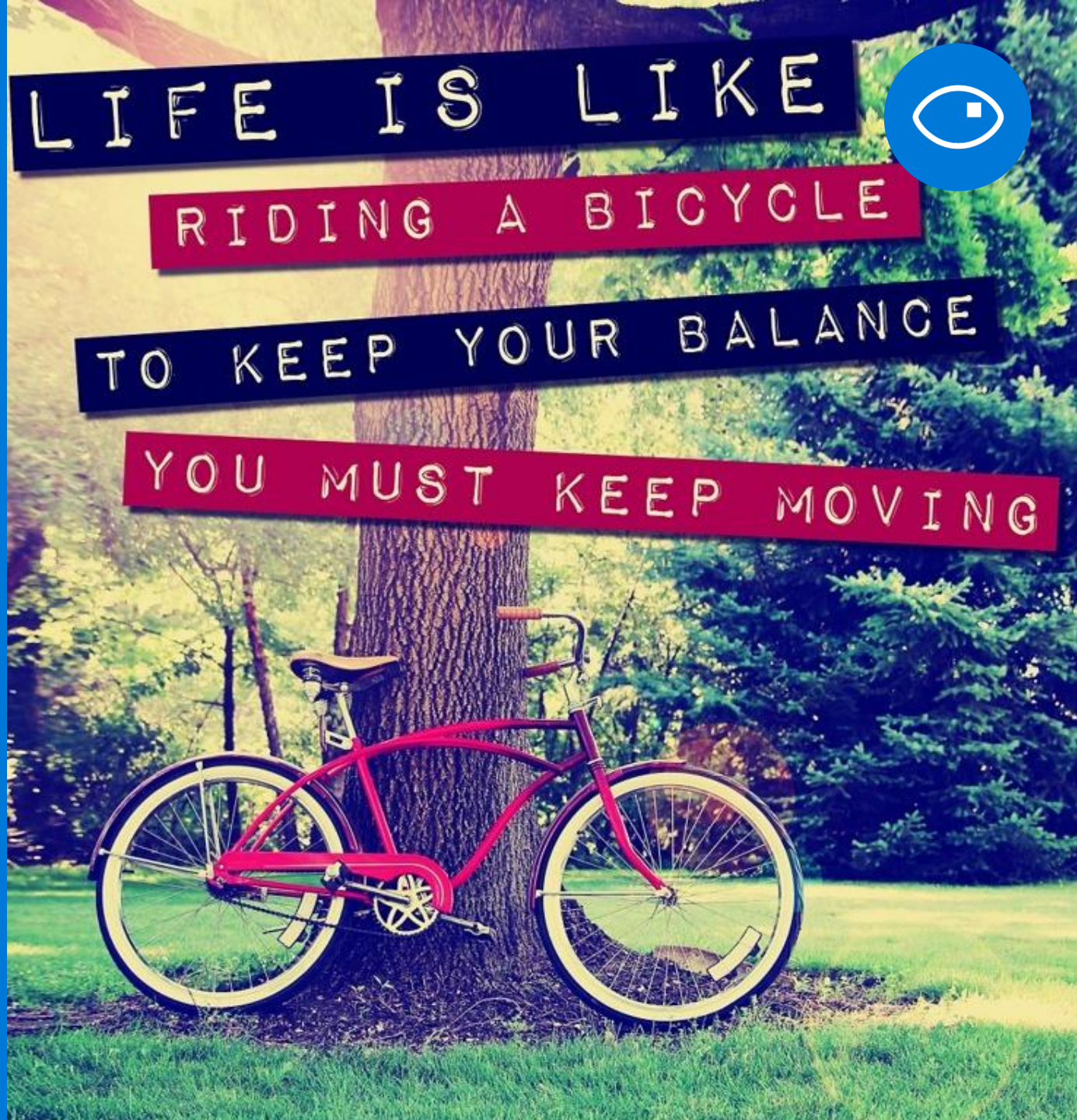




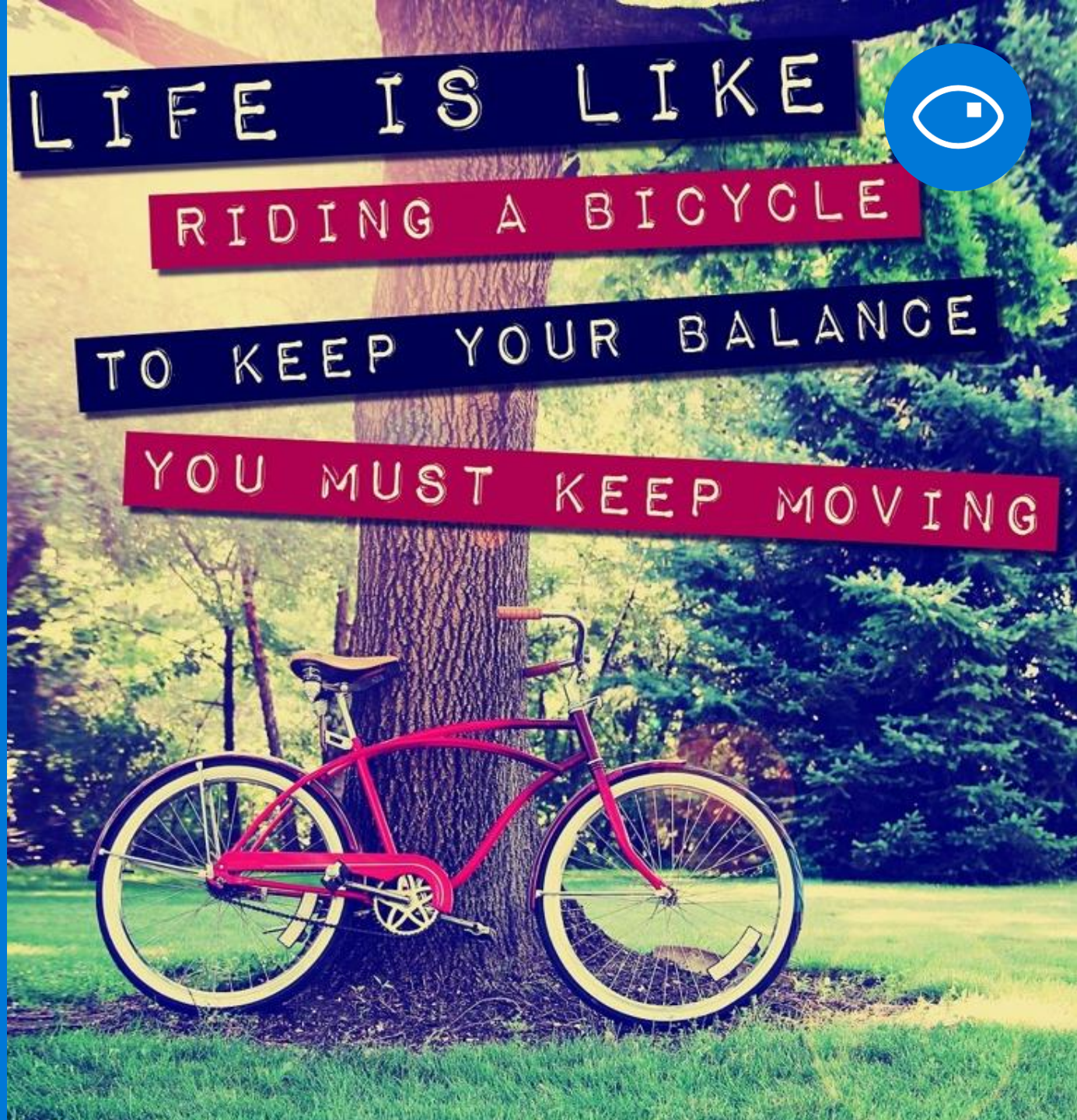
OCR

Good at

Scanned documents

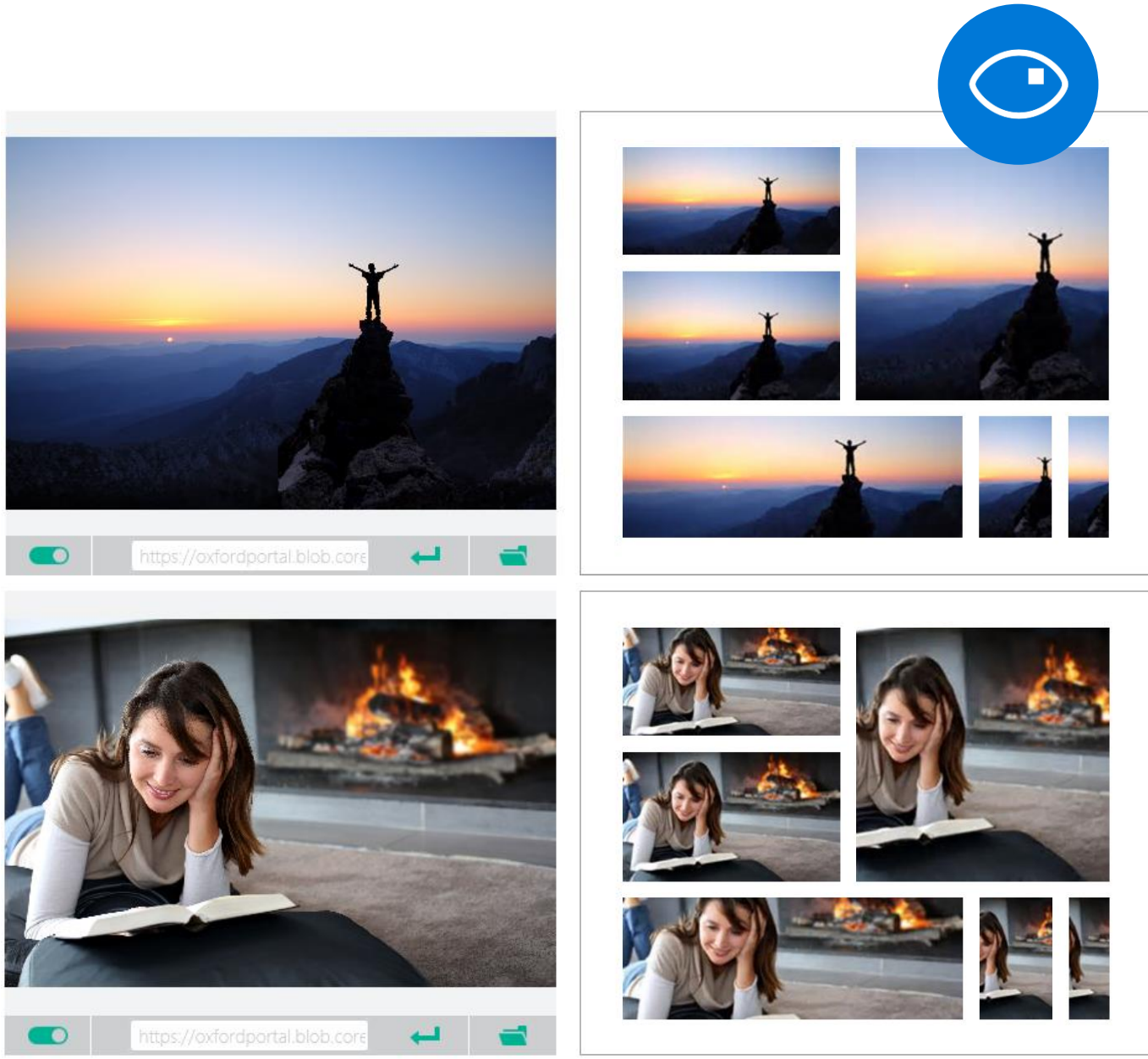
Photos with text

Fine-grained
location information



Smart thumbnail

Smart cropping **off**



Content Moderator

Machine-assisted moderation of text and images, augmented with human review tools

Image moderation

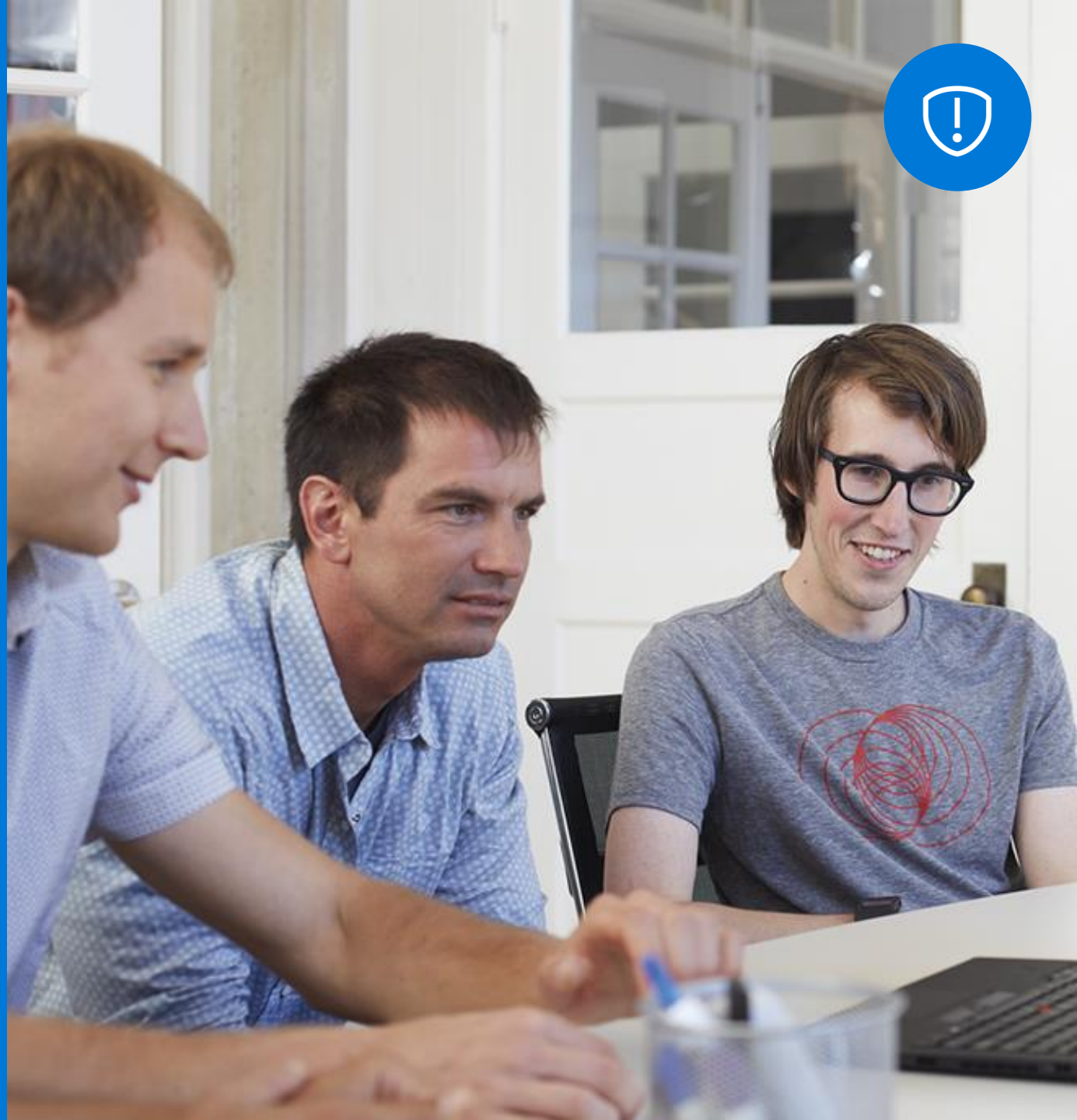
Machine-learning based classifiers, custom blacklists, and Optical Character Recognition (OCR)

Text moderation

Helps you detect potential profanity in more than 100 languages and match text against your custom lists automatically.
Identification of possible Personally Identifiable Information (PII)

Video moderation (in Azure Media Services)

Scoring of possible adult content in videos.
Video moderation is currently deployed in preview on Azure Media Services

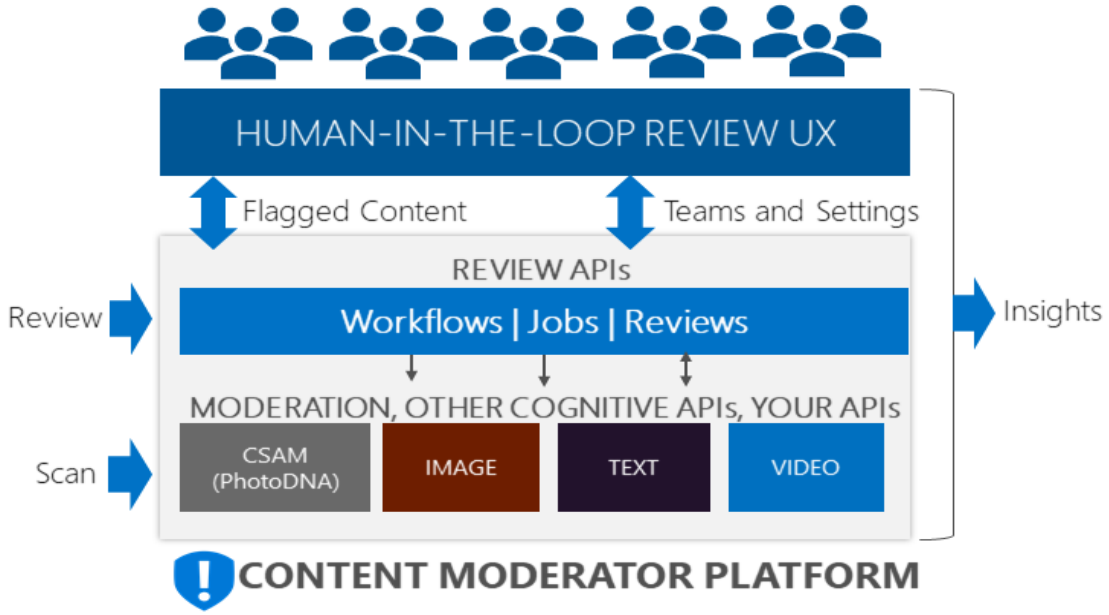


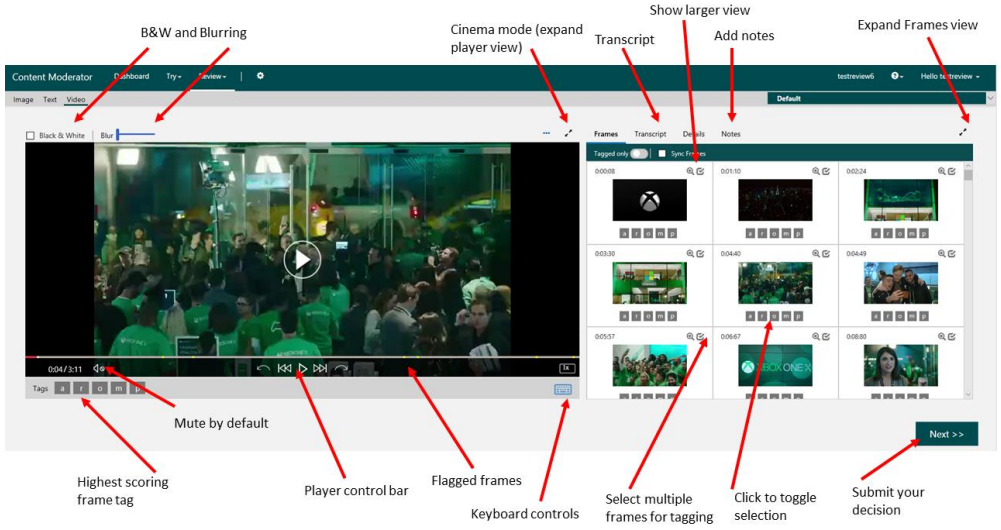
Content Moderator

Moderate
Utilize automated results to reduce time and detect unwanted or offensive content

Configure
Combine automated content moderation with human review and workflows

Review
Approve and reject flagged content to confidently improve filtering





Custom Vision

A customizable web service that learns to recognize specific content in imagery

Upload images

Upload your own labeled images, or use Custom Vision Service to quickly tag any unlabeled images

Train

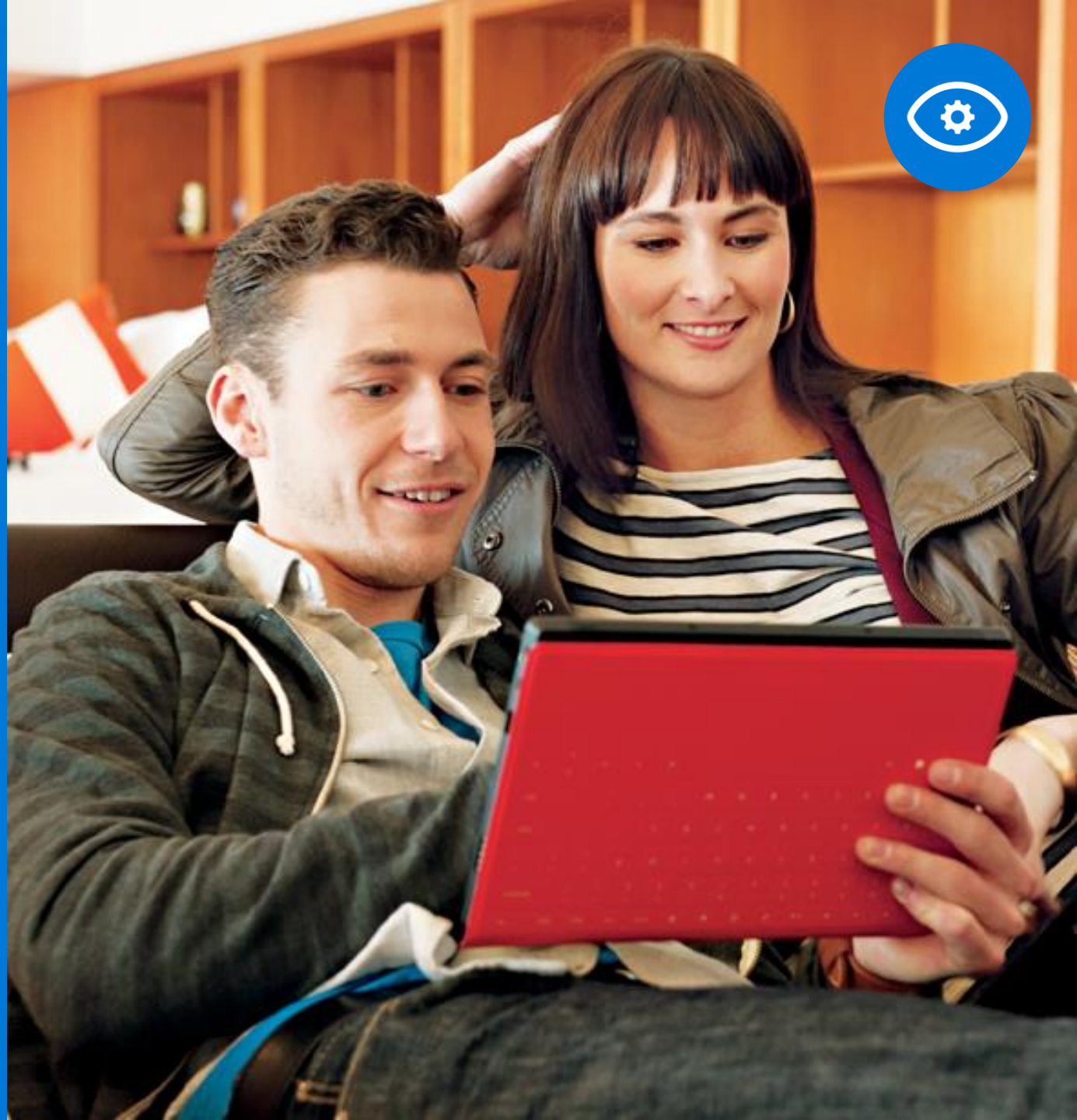
Use your labeled images to teach Custom Vision Service the concepts you want it to learn

Evaluate

Use simple REST API calls to quickly tag images with your new custom computer vision model

Active learning

Images evaluated through your custom vision model become part of a feedback loop you can use to keep improving your classifier

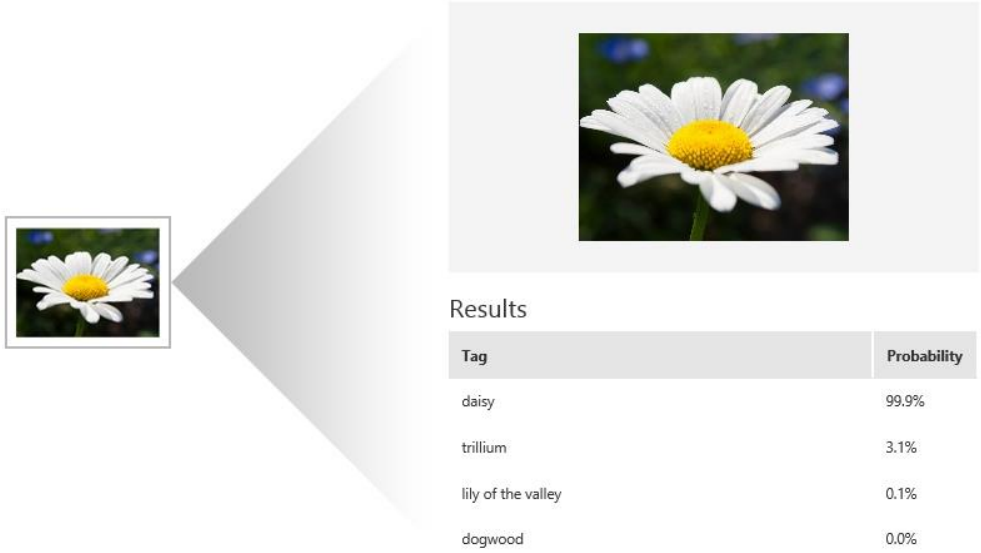


Custom Vision

Customize
Design your own state-of-the-art models for unique use cases

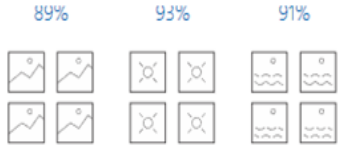
Upload
Use labeled images to quickly train and update your models

Export
Run models on a device or as a Docker container with just one click



Upload Images
Bring your own labeled images, or use Custom Vision to quickly add tags to any unlabeled images.

Train
Use your labeled images to teach Custom Vision the concepts you care about.



Evaluate
Use simple REST API calls to quickly tag images with your new custom computer vision model.

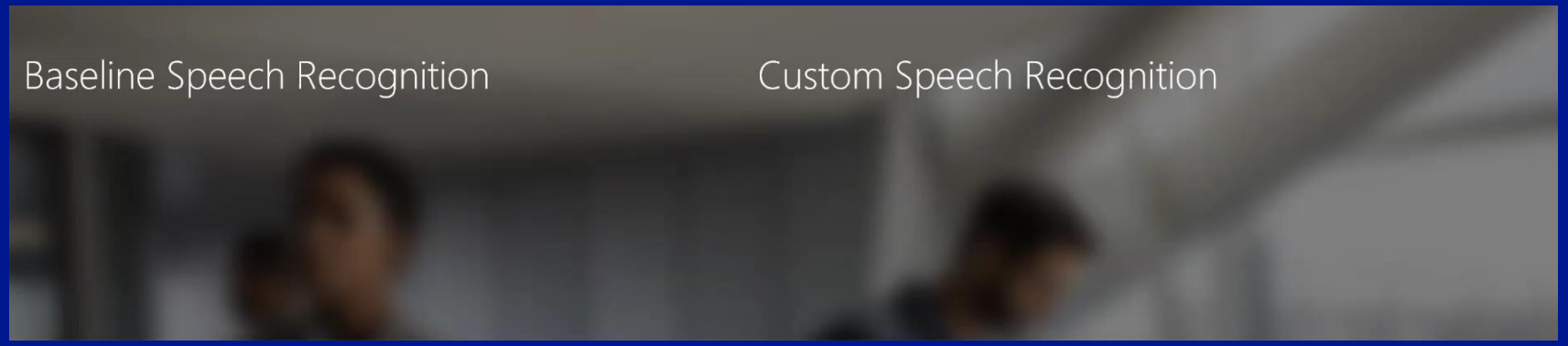
Speech

Hear and speak to your users by filtering noise, identifying speakers, and understanding intent

Unified Speech service |

Speech to Text | Text to Speech | Speech Translation

Speaker Recognition



Unified Speech

Combine speech recognition, text-to-speech, customized voice models, and translation service

Speech to text

Convert continuous human speech to text that can be used as inputs

Text to speech

Convert text to audio files of natural-sounding speech

Speech translation

Use text or speech to provide translations of speech to other languages

Speaker Recognition

Speaker verification
Check if two voices are the same

Speaker identification
Identify who is speaking

Speaker Recognition

Enrollment

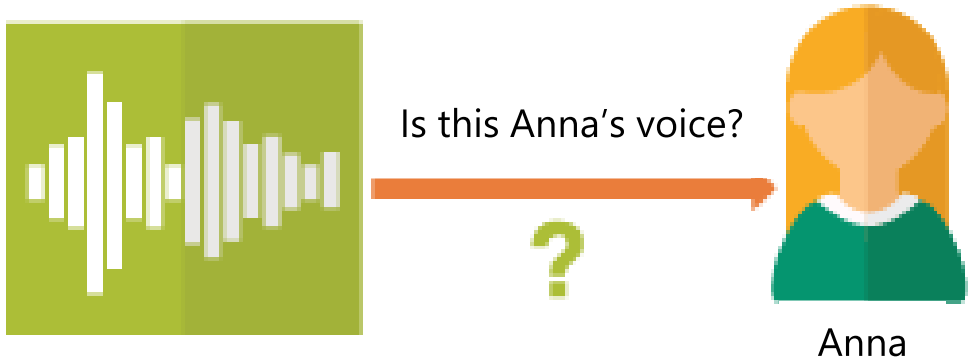
Create a unique voiceprint for a profile

Recognition

After enrolling one or more voices, identify who is speaking from an audio clip

Verification

Confirm if a voice belongs to a previously enrolled profile



Bing Speech

Voice recognition (speech to text)
Converts spoken audio to text

Voice output (text to speech)
Synthesize audio from text

Speech intent recognition
Convert spoken audio to intent

Custom Speech

Customize both language and acoustic models

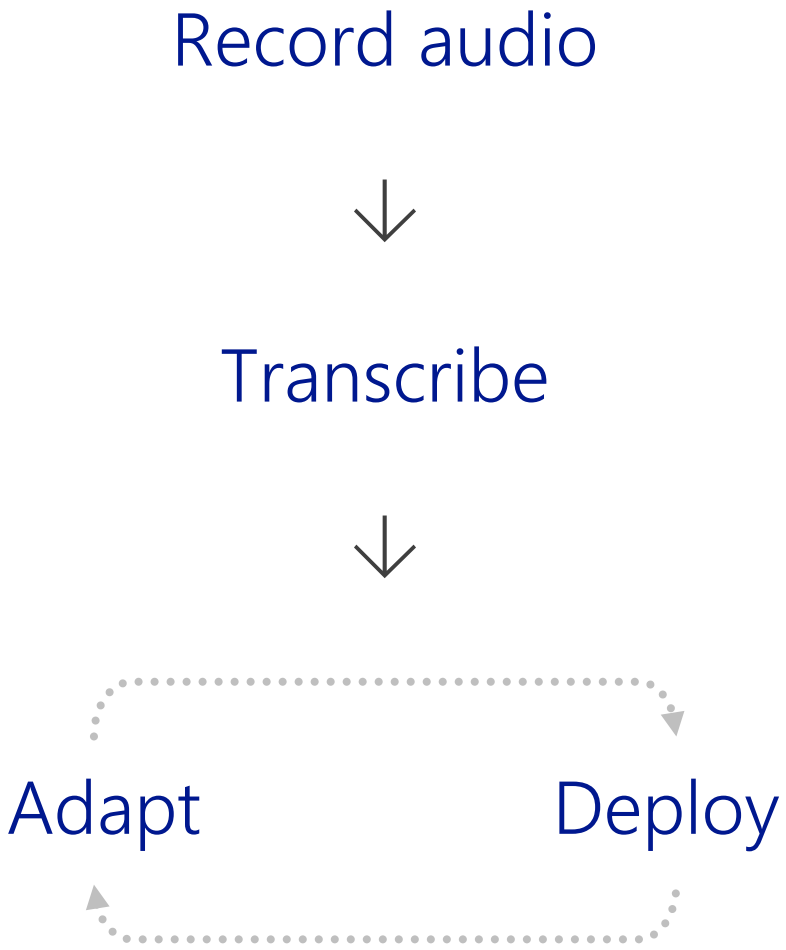
Tailor speech recognition to your app and environment

Custom Speech

Create custom language models for the vocabulary of the application

Adapt acoustic models to better match the expected environment of the application's users

Deploy to a custom endpoint and access from any device



STARSHIP COMMANDER

"The only reason we can build a product like this is because we are building on the deep learning and speech recognition expertise at Microsoft to deliver an entertainment experience that will be revolutionary."

Alexander Mejia, Owner and Creative Director, Human Interact

Custom Speech Service, LUIS

Read case study here

See video here

Translator Speech

Facilitate end-to-end, real-time speech translations in over 60 languages

Transcribe and translate

Optimize translations for real-life conversations

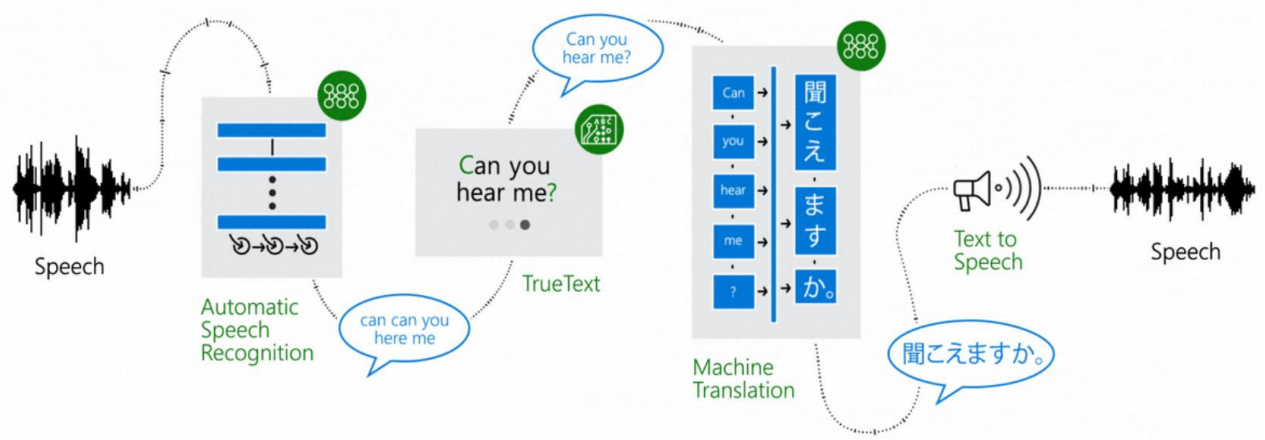
Customize

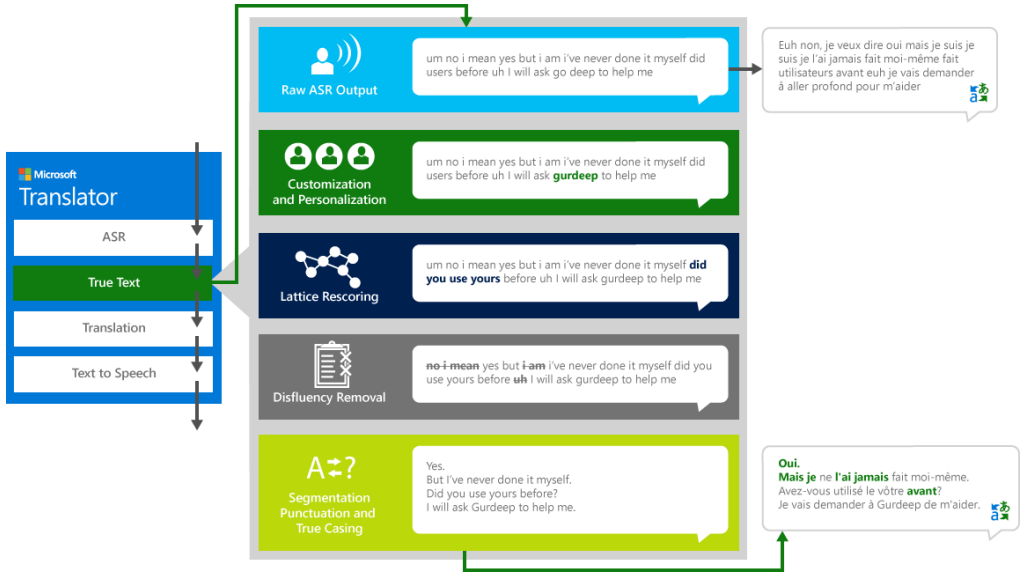
Personalize speech recognition, translations, and speech-to-text to your specific domain or scenario

Translator Speech

To translate the “source” speech from one language to a different "target" language, Translator Speech goes through a four-step process

1. Speech recognition, to convert audio in into text
2. TrueText normalizes text to make it more appropriate for translation
3. Translation through the text translation engine with models developed for real-life spoken conversations
4. Text-to-speech, when necessary, to produce the translated audio





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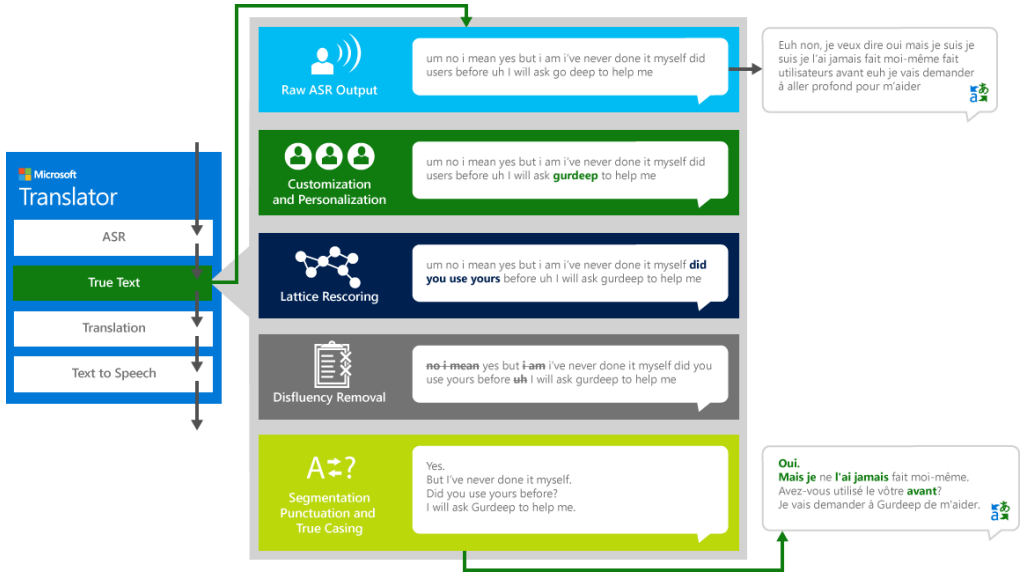
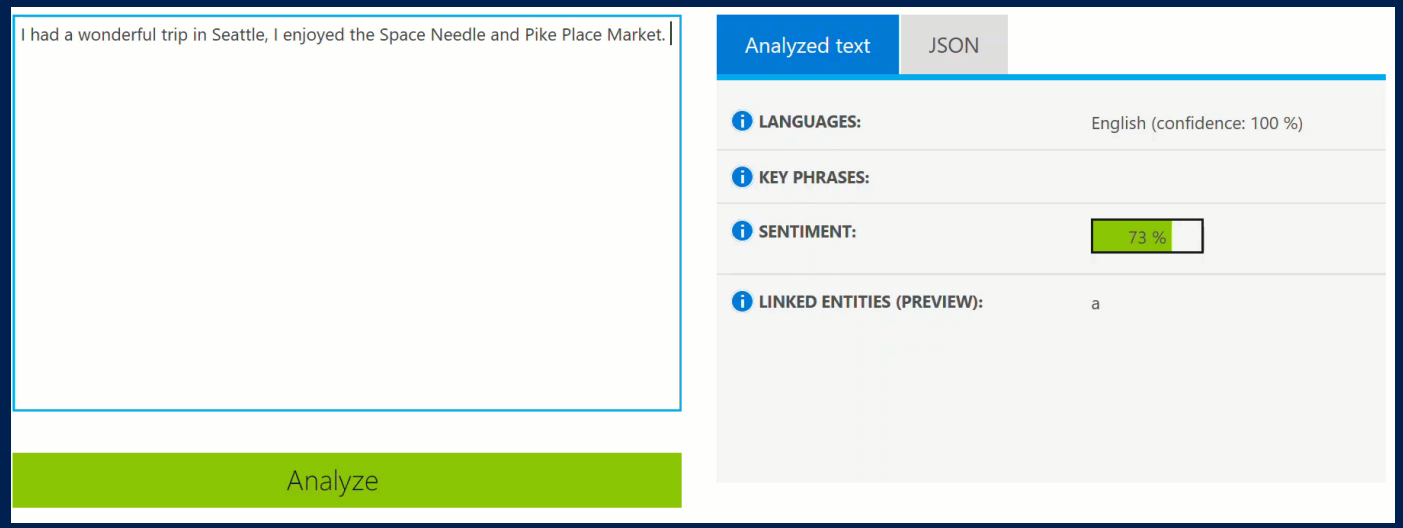


Language

Process text and learn how to recognize what users want

Text Analytics | Bing Spell Check | Language Understanding | Translator Text



Text Analytics

Sentiment analysis

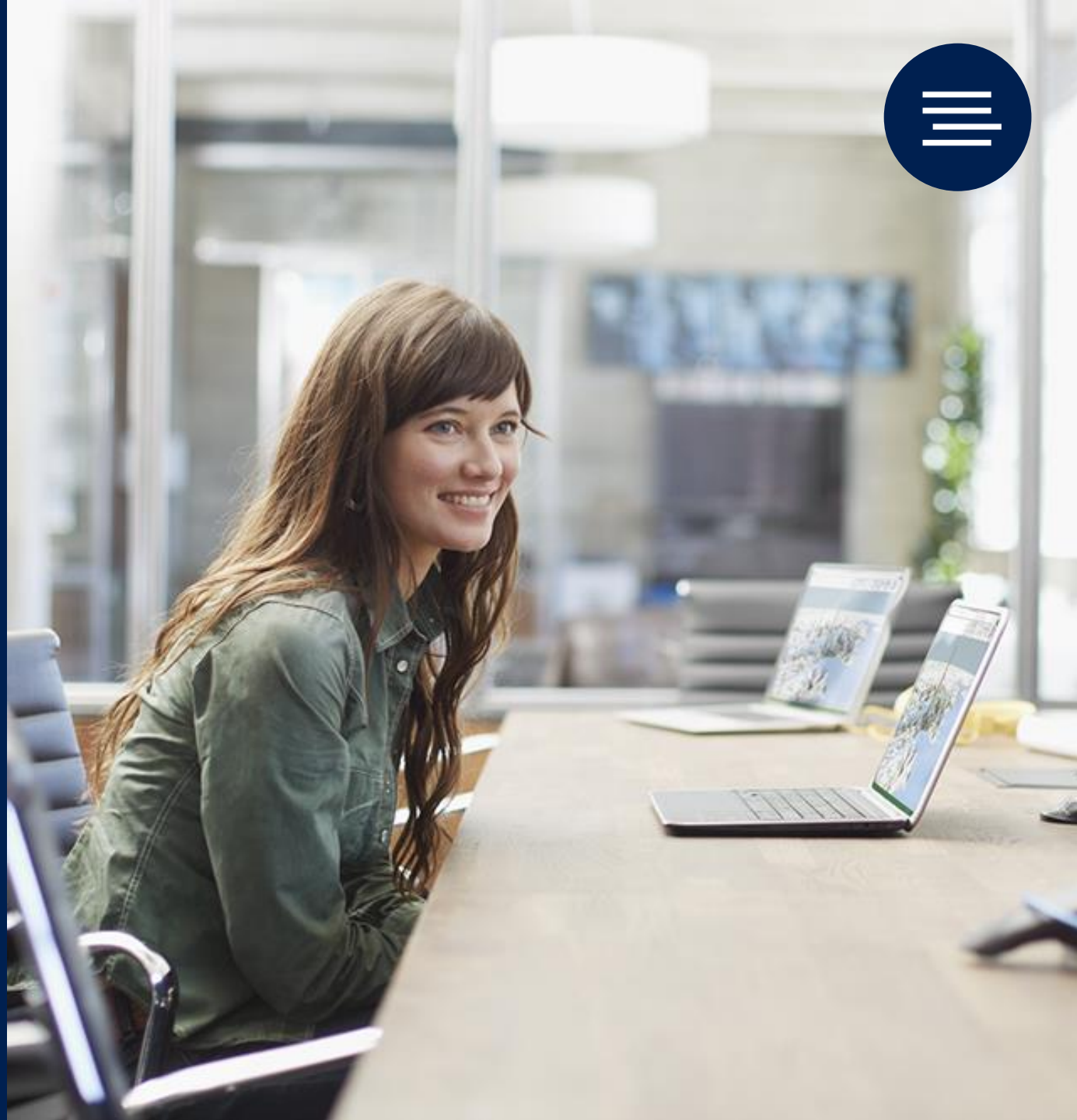
Understand if a record has positive or negative sentiment

Key phrase extraction

Extract key phrases from a piece of text, and retrieve topics

Language detection

Identify the language,
120 supported languages



Text Analytics

Analyze

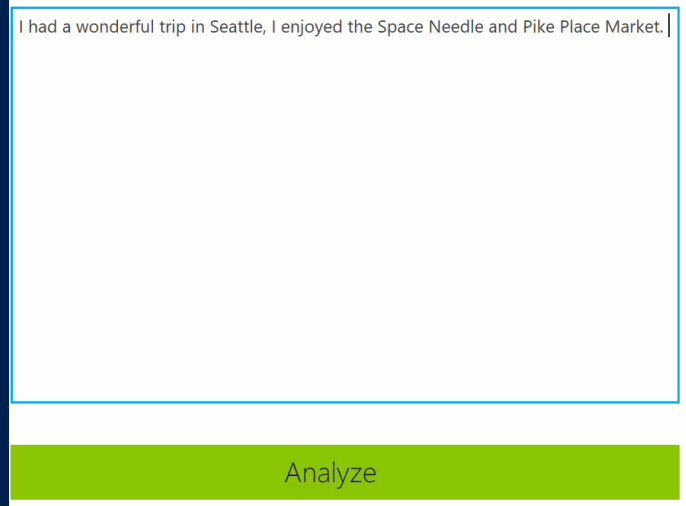
Generate a sentiment score using unique classification techniques

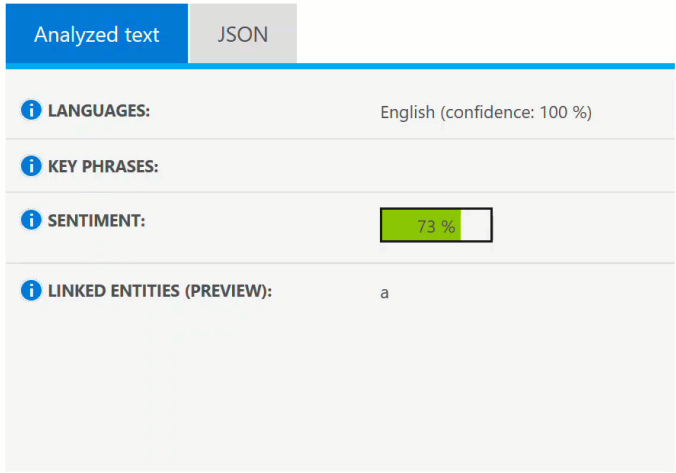
Detect

Return detected language and numeric scores to indicate certainty

Extract

Use Natural Language Processing to denote key talking points





Bing Spell Check

State-of-the-art cloud-based spelling algorithms

Recognizes a wide variety of spelling errors

Recognize name errors and homonyms in context

Difficult-to-spot errors that use the context of the words around them

Updates over time

Support for new brands and coined expressions as they emerge

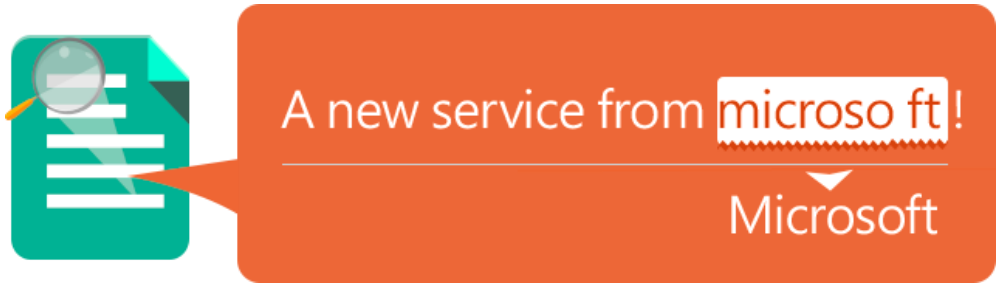
Bing Spell Check

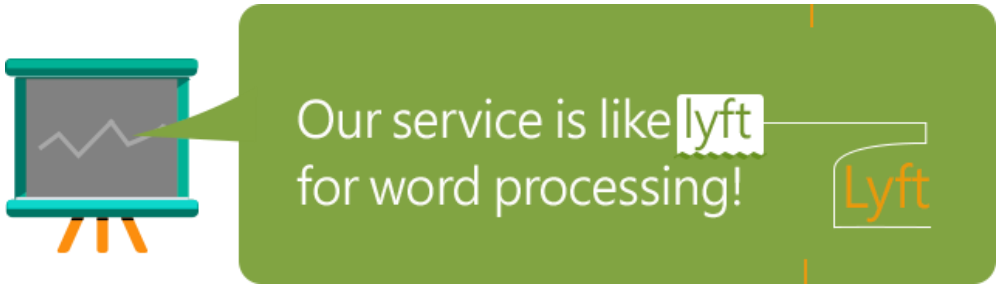
Check a single word or a whole sentence

"Our engineers developed this **four** you!"
Corrected Text: "four" → "for"

Identify errors & get suggestions

```
"spellingErrors": [
    {
        "offset": 5,
        "token": "gona",
        "type": "UnknownToken",
        "suggestions": [
            { "token": "gonna" }
    ] }
```





Translator Text

Conduct real-time translation with a REST API call

Automatic detection

Accurately detect specific languages on any text string

Transliterate

Translate and display text in different language alphabets

Speech translation

Build custom NTM models that better handle writing styles and expressions

Translator Text

Provides automatic detection and multi-language user-experiences in more than 60 languages

Auto Language Detection—American to French

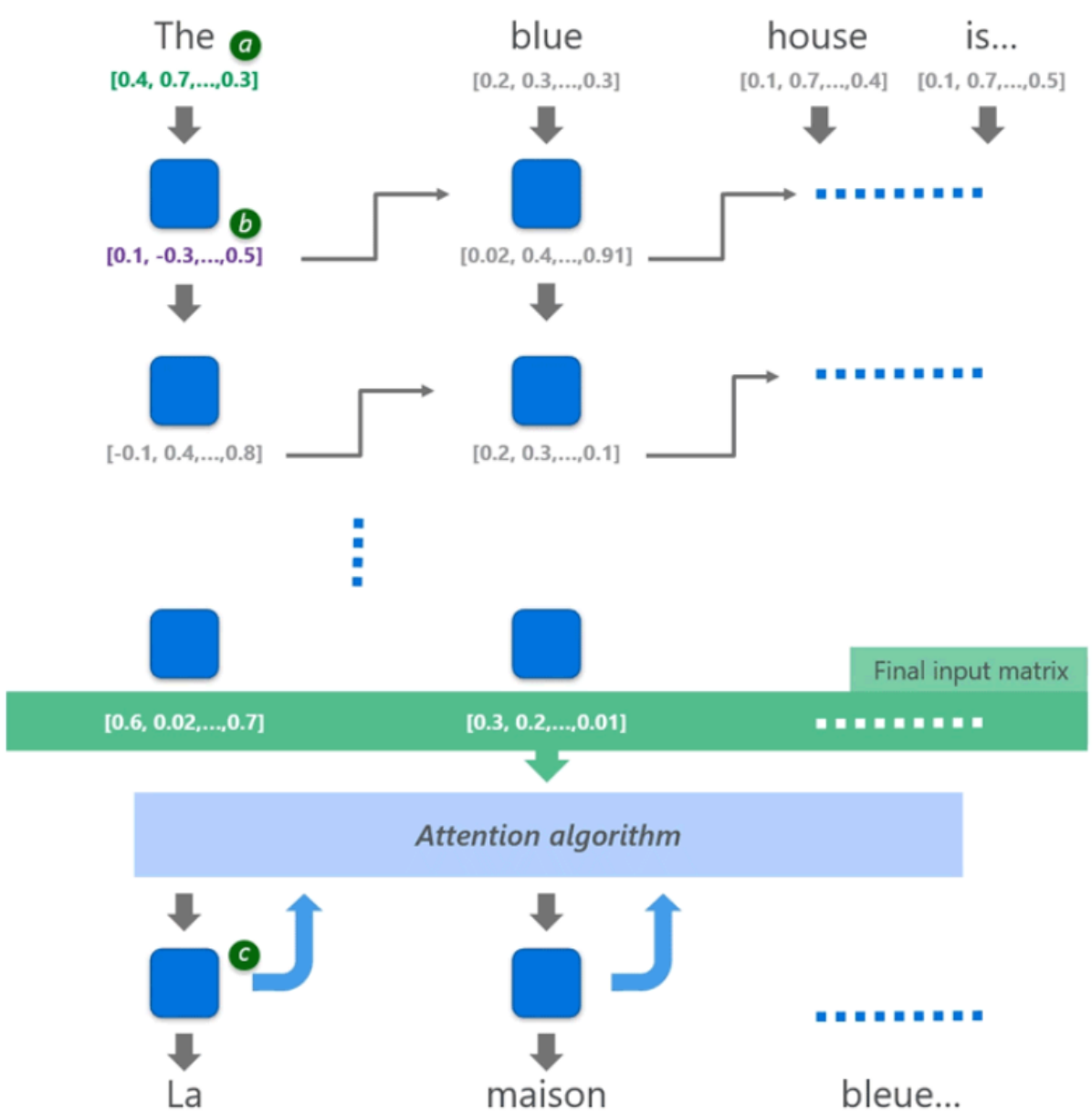
Input

-H "Content-Type: application/json" -d "[{'Text':'The blue house is…?'}]"

Response

"detectedLanguage": {"language": "en", "score": 1.0},

"translations":[
{"text": "La maison bleue… ? ", "to": "fr"}



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-H "Content-Type: application/json" -d "[{'Text':'The blue house is…?'}]"

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"detectedLanguage": {"language": "en", "score": 1.0},

"translations":[
{"text": "La maison bleue…？", "to": "fr"}

Language Understanding Intelligent Service

Understand what your users are saying

Use pre-built Bing and Cortana models or create your own

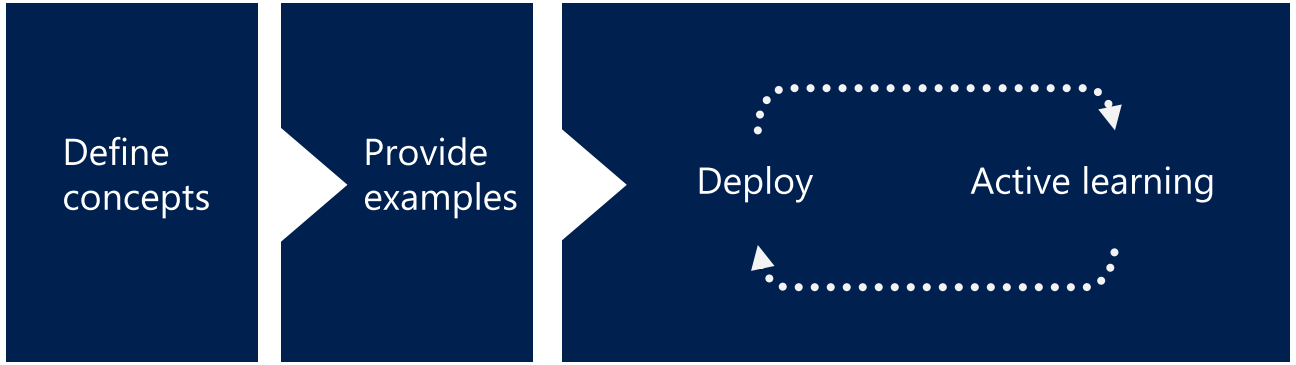
Language Understanding Intelligent Service

Reduce labeling effort with interactive featuring

Use visualizations to gauge performance and improvements

Leverage speech recognition with seamless integration

Deploy using just a few examples with active learning



Language Understanding Models

“News about flight delays”


```
{
  “entities”: [
    {
      “entity”: “flight_delays”,
      “type”: “Topic”
    }
  ],
  “intents”: [
    {
      “intent”: “FindNews”,
      “score”: 0.99853384
    },
    {
      “intent”: “None”,
      “score”: 0.07289317
    },
    {
      “intent”: “ReadNews”,
      “score”: 0.0167122427
    },
    {
      “intent”: “ShareNews”,
      “score”: 1.0919299E-06
    }
  ]
}
```

Microsoft | Cognitive Services | Language Understanding

Giampaolo Battaglia

My apps | My keys | Docs | Pricing | Support | About

Pizza Bot

Version: 0.1

Settings

Dashboard

Intents

Entities

Prebuilt domains PREVIEW

Features

Train & Test

Publish App

Back to App list

Test your application

Use this tool to test the current and published versions of your application, to check if you are progressing on the right track ... Learn more

Train Application | Last train: Jan 18, 2017 2:41:01 PM | Last publish: Jan 18, 2017 2:41:25 PM

Interactive Testing | Batch Testing

Enable published model

Labels view (Ctrl+E) Entities | Reset console

Type a test utterance & press Enter

i ' d like a [$Size] pie with [$Toppings]

i need a [$Size] pizza with [$Toppings] and tomatoes

i need a [$Size] pizza

Current version results

Top scoring intent

Order-Pizza (0.88)

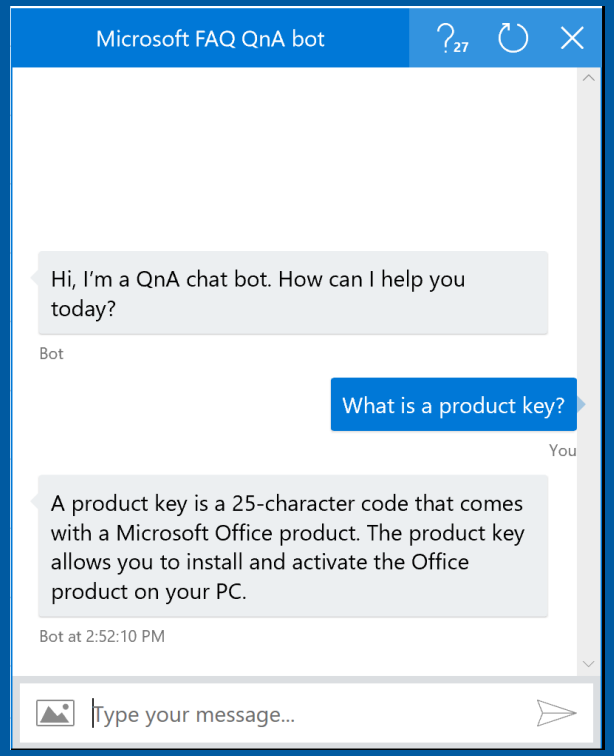
Other intents

None (0.06) Cancel (0)

Knowledge

Map complex information and data in order to solve specific tasks such as QnA pairs extraction

QnA Maker | Custom Decision



QnA Maker

Build, train, and publish simple question and answer bots

QnA extraction

Use existing content to respond to users naturally

Expanded response

Integrate with other APIs to expand question interpretations

Train and improve

Add and remove QnA pairs to improve your bot's knowledge

QnA Maker

Update
Manage knowledge base content and settings

Analyze
Monitor analytics and feedback

Publish
Deploy endpoint in a bot

Test
Verify query matching ranking

Who should use QnAMaker?

Answer:

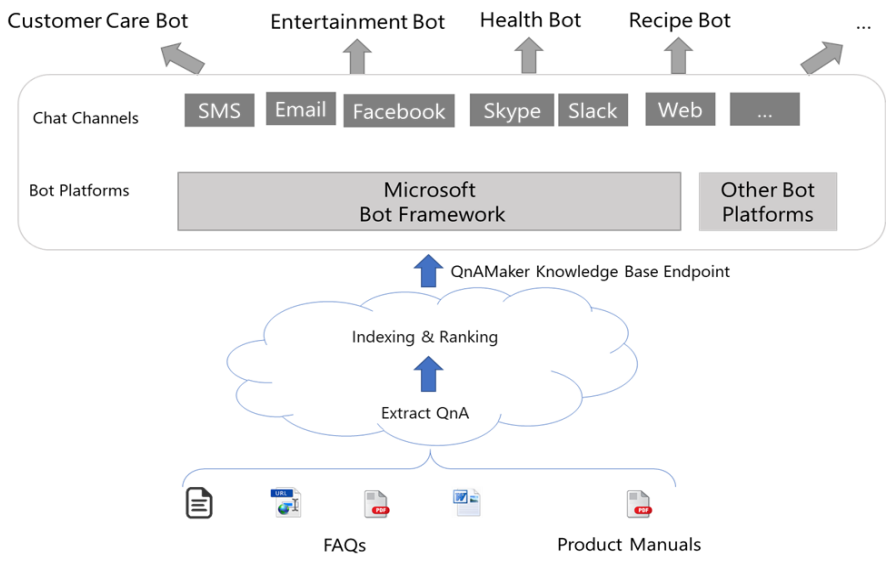
QnA Maker provides an FAQ data source that you can query from your bot or application. Although developers will find this useful, content owners will especially benefit from this tool. QnA Maker is a completely no-code way of managing the content that powers your bot or application.

Score:

100

Matched questions:

- who is the target audience for the qna maker tool
- who should use qnamaker



Custom Decision

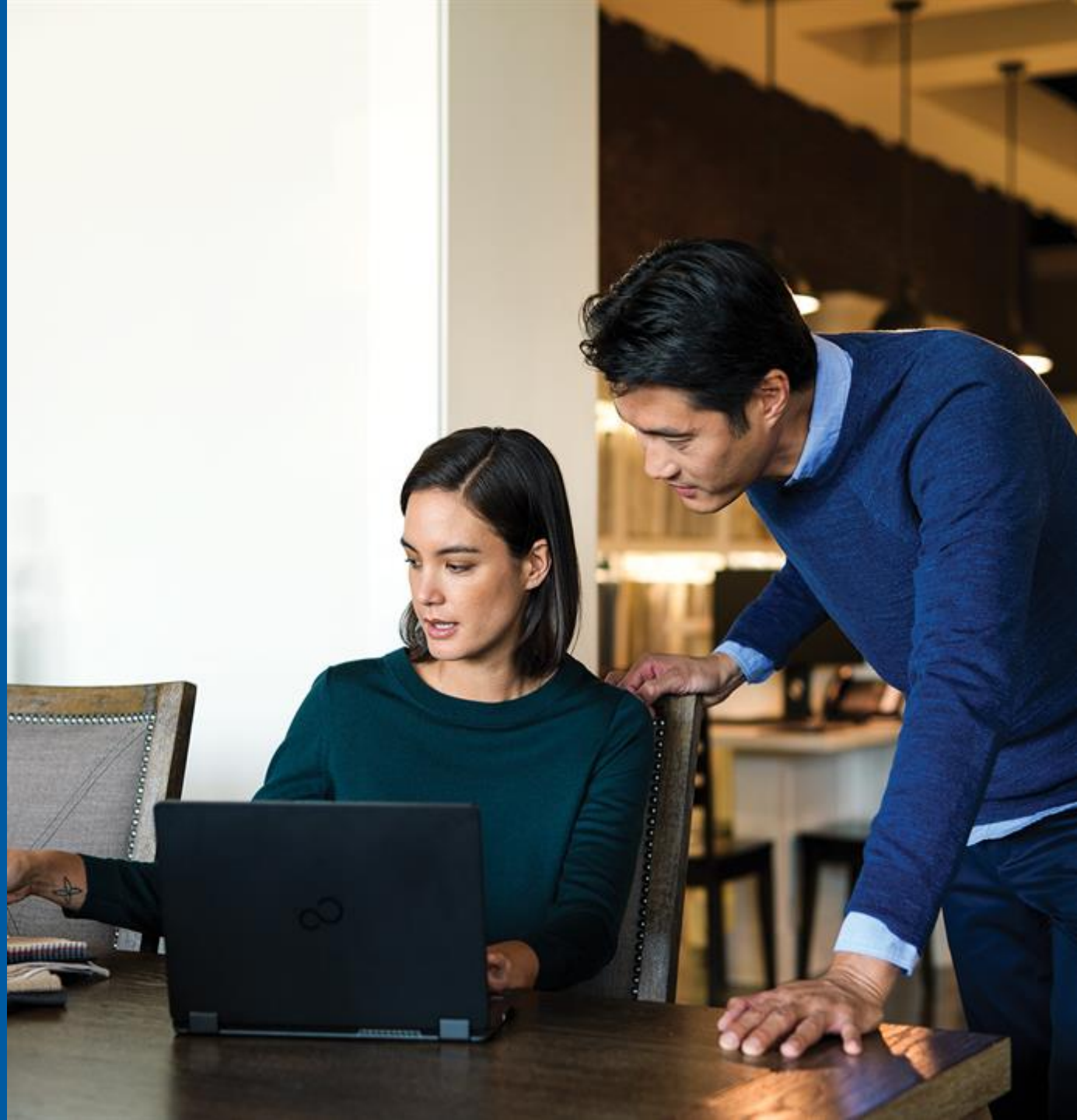
Cloud-based, contextual decision making that sharpens with experience

Contextual understanding

Use context to rank options and make the best decisions

Quick learning

Rapidly train and optimize decision making based on trend changes and feedback



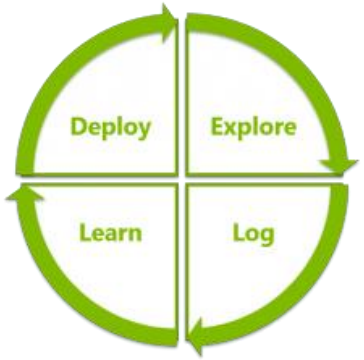
Custom Decision

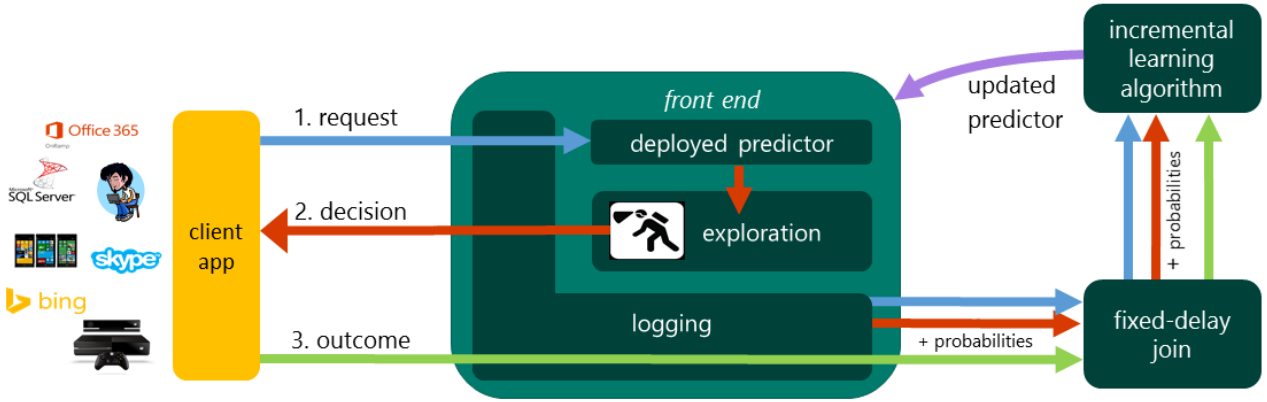
Personalize
Articles on a news website

Customize
Video content on a media portal

Optimize
Ad placements or web pages
that an ad directs to

Rank
Recommended items on
a shopping website

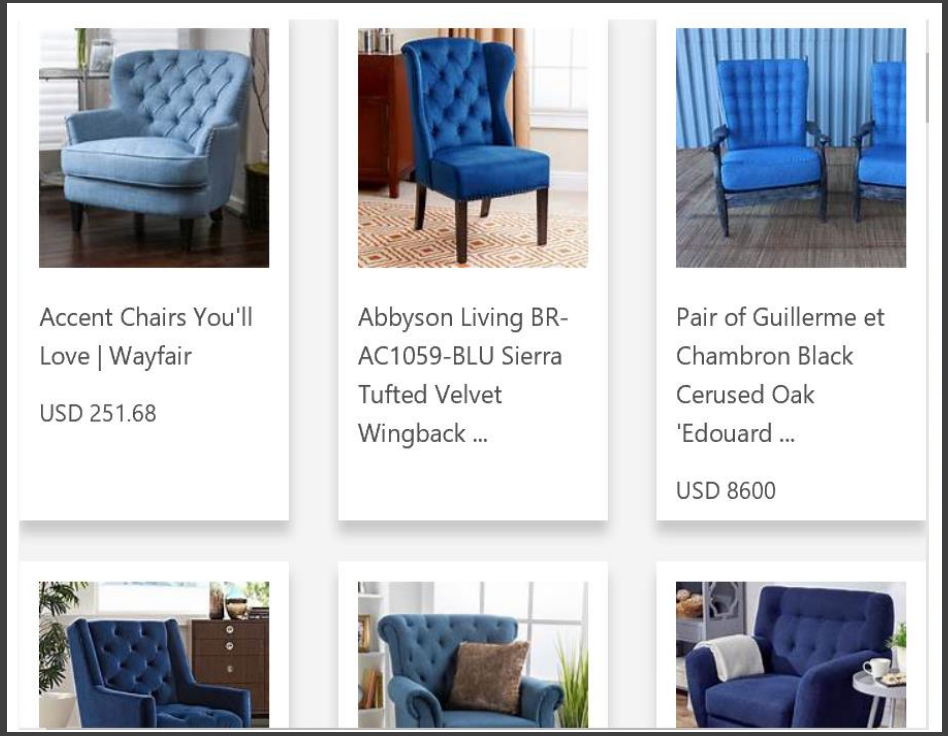




Access billions of web pages, images, videos, and news with the power of Bing APIs

Bing Web Search | Bing Custom Search | Bing Video Search | Bing Image Search | Bing Visual Search | Bing Entity Search | Bing News Search | Bing Autosuggest | Bing Statistics add-in

Search



Bing Web Search

Intelligently search billions of webpages, videos, images, and news blasts

Powerful statistics

Quickly retrieve search statistics to inform your business practices

Related searches

Discover more search options with related queries

Safe search

Customize results to flag adult and other racy content

Bing Web Search

Quickly narrow your search results by market, freshness, result type, search category, and more

Submit a customized query to return the most accurate results for your location

SDOT Bike Web Map - Transportation | seattle.gov
www.seattle.gov/transportation/projects-and-programs/programs/bike...
From in-street Sharrows to fully separated Protected Bike Lanes and Multi-Use Trails, ... Seattle Department of Transportation PO Box 34996 Seattle, WA 98124-4996

Name "Online Bicycle Map",

URL "http://www.seattle.gov/transportation/projects-and- programs/programs/bike-program/online-bike-map"

Date Accessed: "2018-05-19T07:32:00Z",

About "Transportation in Seattle"

seattle bike trails

Market
en-us (English-United States)

SafeSearch
Strict

Freshness
(unspecified)

SDOT Bike Web Map - Transportation | seattle.gov
www.seattle.gov/transportation/projects-and-programs/programs/bike...
From in-street Sharrows to fully separated Protected Bike Lanes and Multi-Use Trails, ... Seattle Department of Transportation PO Box 34996 Seattle, WA 98124-4996

Seattle Bike Trails - Seattle Outdoors Information ...
www.seattleoutdoorsinfo.com/.../seattle-biking/seattle-bike-trails
Current information about hiking, camping, biking, winter sports, and just about anything that involves exploring the Pacific Northwest, with special focus on Seattle.

Seattle Trails & Detailed Trail Maps | TrailLink.com
https://www.traillink.com/city/seattle-wa-trails
Looking for the best trails around Seattle? Find the top rated trails in Seattle, whether you're looking an easy walking path or a long bike trail, you'll find what you're looking for. Click on a trail below to find trail descriptions, trail maps, photos, and reviews ...

Seattle , WA Bike Trails - Maps of Bike Routes in Seattle , WA
www.mapmyride.com/us/seattle-wa
Find over 26366 bike trails in Seattle . Cycling routes, maps, events, races, & club rides in Seattle , WA. Track & analyze your rides with MapMyRIDE!

WSDOT - Maps of Local Bicycle Paths and Accessible Trails
https://www.wsdot.wa.gov/bike/localmaps.htm

Bing Custom Search

An easy-to-use, ad-free, commercial-grade search tool lets you deliver results you want

Customize your search

Quickly and reliably define the slices of the web that you want to draw from. Change the parameters of the sites you want and don't want at any time

Easy-to-use

Custom Search features a straightforward UI that enables you to create your web search without a line of code

Commercial-grade

Usage is ad-free—no matter how much or how little of the service you use

Bing Custom Search

Identify
Utilize past search history to pinpoint on-topic or relevant sites and images

Provide
Expand the scope of search domains to define automatic query and search suggestions

Apply
Use Bing rankings to help users achieve the best automated results

Deliver
Add intelligent query suggestions and adjust search parameters to deliver relevant results and access unique usage insights

Custom Config

All

new movies

New Movies in Theaters | Moviefone
https://www.moviefone.com/new-movie-releases
Movie, TV, and pop culture fun for the whole family.

New Movies, Movie Trailers, TV, Digital, Blu-ray & Video ...
www.comingsoon.net
Check out the latest new movies coming soon to theaters & video games to come to market. Read latest buzz & watch exclusive trailers!

Snagfilms on the App Store - itunes.apple.com
https://itunes.apple.com/us/app/snagfilms/id404906625
Watch FREE FULL-LENGTH Movies and TV Shows streamed to your iPhone or iPad ! Over 5,000 independent movies, TV shows and documentaries. Over a dozen categories from adrenaline-filled action-adventure films to hilarious comedy and critically acclaimed documentaries.

Free Movies - Apps on Google Play
https://play.google.com/store/apps/details?id=freemoviesapp.com
Free Movies application connects you do a database of over 5,000 movies you can watch on your Android smartphone / tablet computer for free ... New ...

Get Movies & TV - Microsoft Store
https://www.microsoft.com/en-us/store/p/movies-tv/9wzdncrfj3p2
Download this app from Microsoft Store for Windows 10, Windows 8.1, Windows 10 Mobile, Windows Phone 8.1, Windows Phone 8, HoloLens, Xbox One. See screenshots, read the latest customer reviews, and compare ratings for Movies & TV.

Market

en-us (English-United States)

SafeSearch

Strict

Bing Video Search

Find videos with advanced video search features

Enhanced results

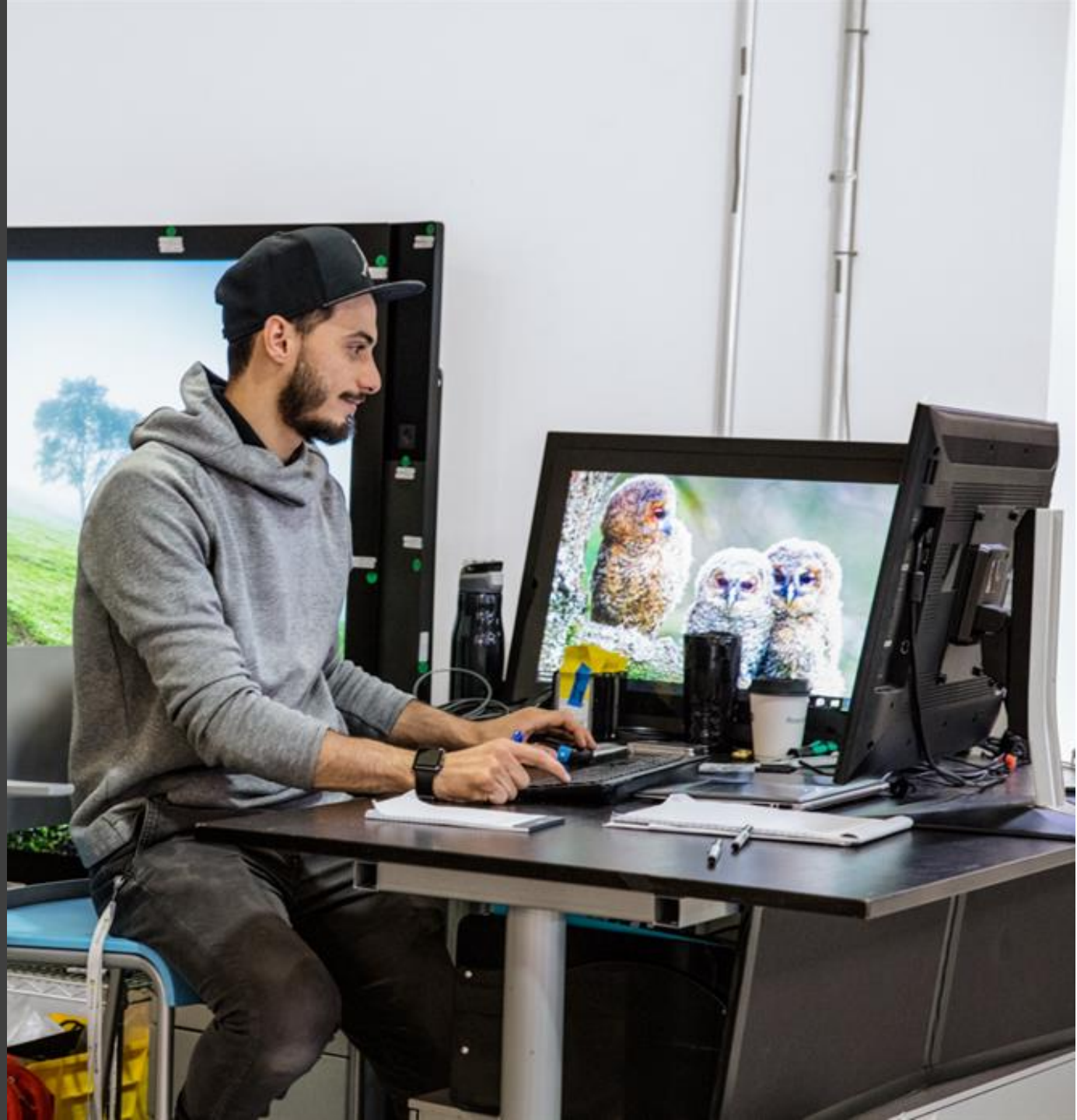
Leverage advanced video metadata including previews and trending videos

Preview

Enrich search results with GIF thumbnails

Search filters

Customize and narrow search results



Bing Video Search

Search results provide useful metadata including creator, encoding format, video length, view count, video description, and simplified paging

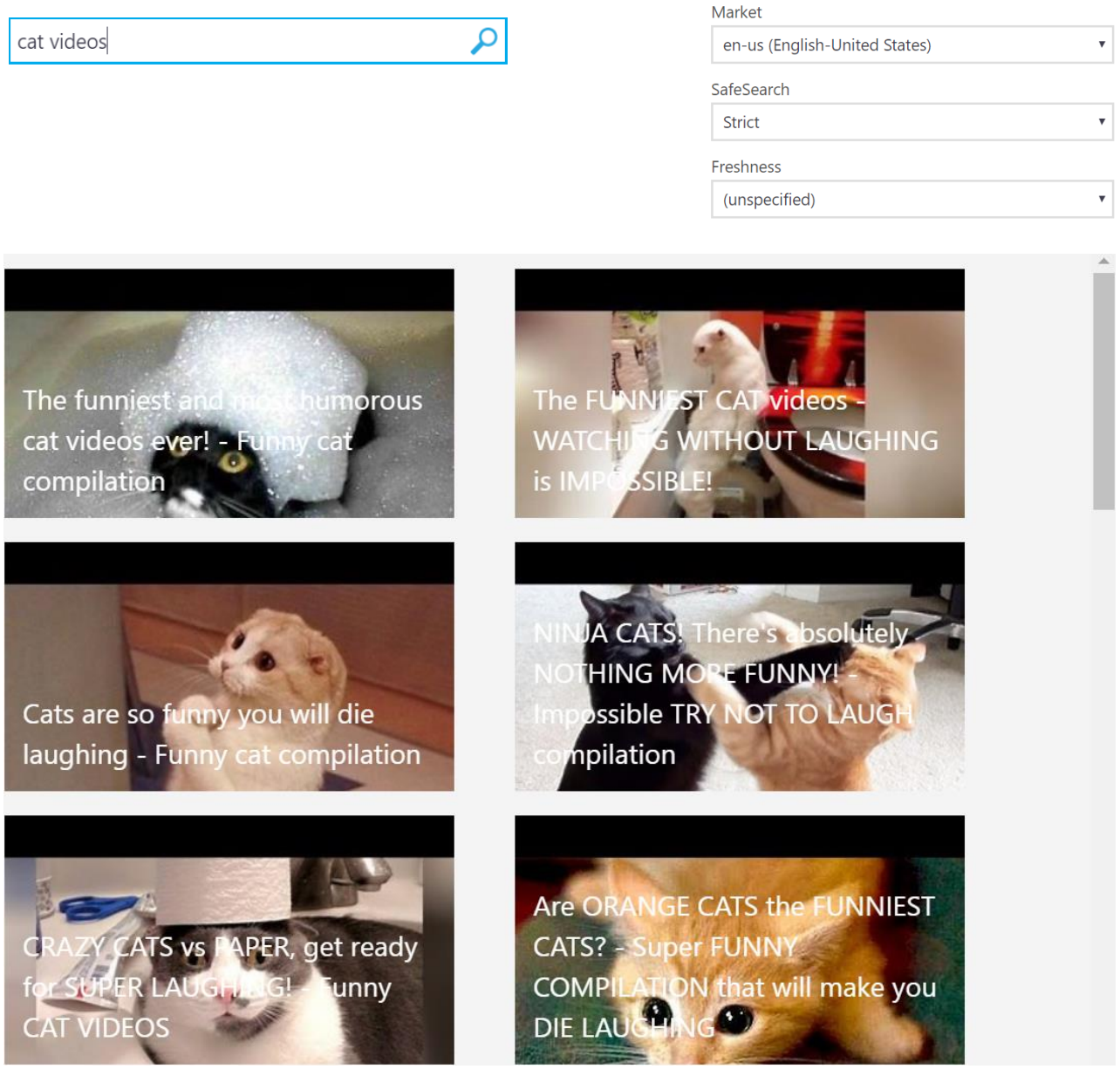
Video

Publish Date
"2016-09-20T20:09:26",

Description
"Cats are awesome, and super funny too! Who doesn't like cats and kittens? They make us laugh and happy!

Content Creator
"Tiger Productions"

Publisher
"YouTube"



Bing Image Search

Instantly add image search options, from trending images to detailed insights

Unlock insights

Leverage image metadata including visually related searches and automatically generated captions

Search filters

Narrow results with customized filters like image type and trending images

Bing Image Search

Discover new sorting and filtering options that simplify specific results and include thumbnails, full image URLs, publishing info, and image metadata

Name
"Desktop HD Wallpapers: 3D Nature Wallpapers",

Date Published
"2012-12-03T12:00:00",
Content Size
"595588 B",
Width 1600,
Height 914,

Market
en-us (English-United States)

SafeSearch
Strict

Freshness
(unspecified)

nature wallpapers

Bing Visual Search

Deliver new experiences that enable users to search with images and gain insights in compelling new ways

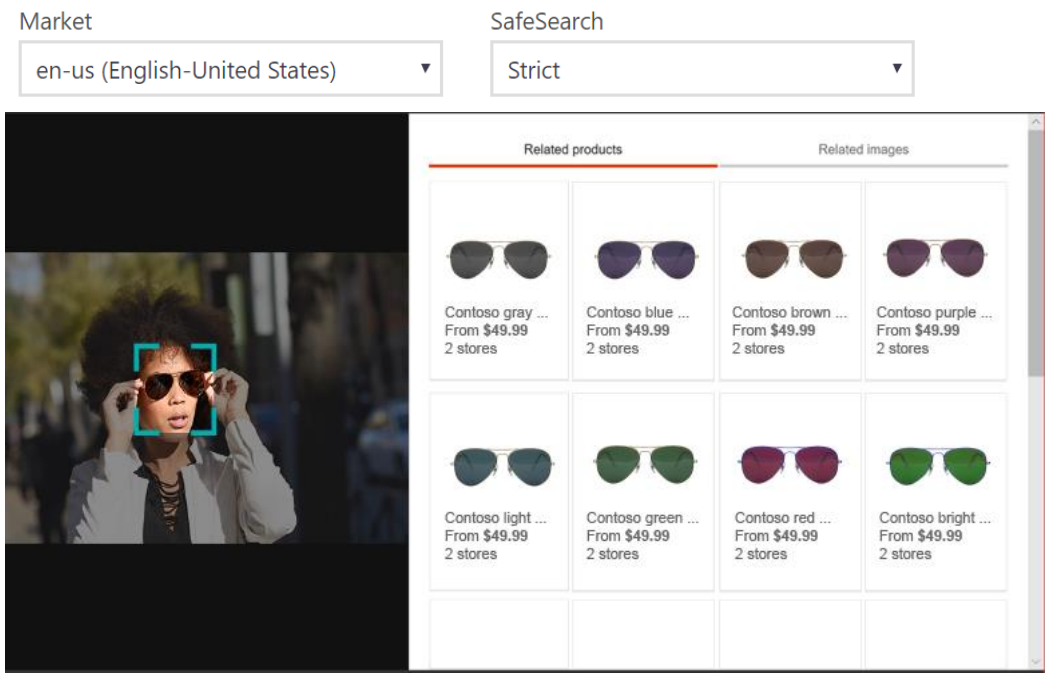
- Discover intelligent context identification
- Enhance produce recommendations for your business
- Make your applications and devised intelligent
- Augment image understanding through OCR
- Power statistics for your queries

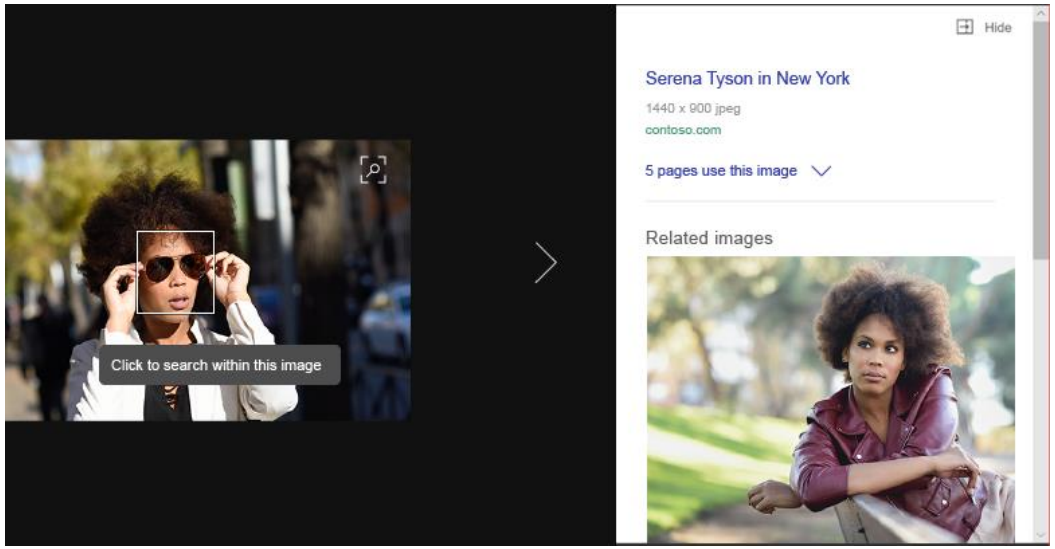
Bing Visual Search

Enhance
Create compelling recommendations using visually similar images

Add
Integrate any image source to get intelligent search annotations and information

Augment
Extract textual information and read text in images for improved search results





Bing Entity Search

Enrich user experiences with contextual entity search results

Tap into the power of the web to search for the most relevant entities (such as movies, books, famous people, U.S. local businesses…) and easily provide primary details and information sources about them

Augment your content with entity search results

Showcase of local businesses nearby

Bing Entity Search

Identify
Detect the most relevant entity based on searched terms

Augment
Improve the user experience and provide primary details about searched entities

Showcase
Present local or relevant businesses and locations for a more engaging experience

Query
Coffee 98004
Search Type
Restaurant
Address Locality
Bellevue
Address Region
WA
Postal Code
98004

Coffee 98004

Third Culture Coffee
https://thirdculturecoffee.com/
Bellevue, WA, 98004;
(425) 230-3660
Categories: Place, LocalBusiness, Restaurant
See more on Bing >

Honor Coffee
http://www.honorcoffee.com/
Bellevue, WA, 98004;
(425) 598-2185
Categories: Place, LocalBusiness, Restaurant
See more on Bing >

Starbucks
http://www.starbucks.com/
Bellevue, WA, 98004;
(425) 637-6513
Categories: Place, LocalBusiness, Restaurant
See more on Bing >

Market
en-us (English-United States)

Optional parameters

Latitude
37.77

Longitude
-122.4194

Radius (meters)
5000

Bing News Search

Group and filter world news by topic, local news, and searchable metadata

Trends

Catalogue worldwide trending news by place or category

Customize topics

Categorize searches by news topic and personal interest

Bing News Search

Results include rich detail like authoritative image of articles, provider info, article URL, and date published

Return results can be customized to the location or market of the user

Simplify findings with sorting and filtering options for trending news and other topics

science updates

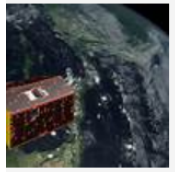
Market
en-us (English-United States)

SafeSearch
Strict

Freshness
(unspecified)

CHSE Odisha +2 Science result declared; 76.98% students pass the exam
School and mass education minister Badri Narayan Patra releasing plus two science results at council of higher secondary education here on Saturday. Live updates 96,185 students have enrolled for the Plus Two examination 95096 studetns have appeared and ...

Elon Musk updates the public on Boring Company and it's amazing
Los Angeles - The hottest ticket in Los Angeles Thursday night was not a movie premiere - It was a seat in a synagogue to hear a tech CEO update people on a venture literally called the Boring Company. About 750 people were lucky enough to get a seat at ...



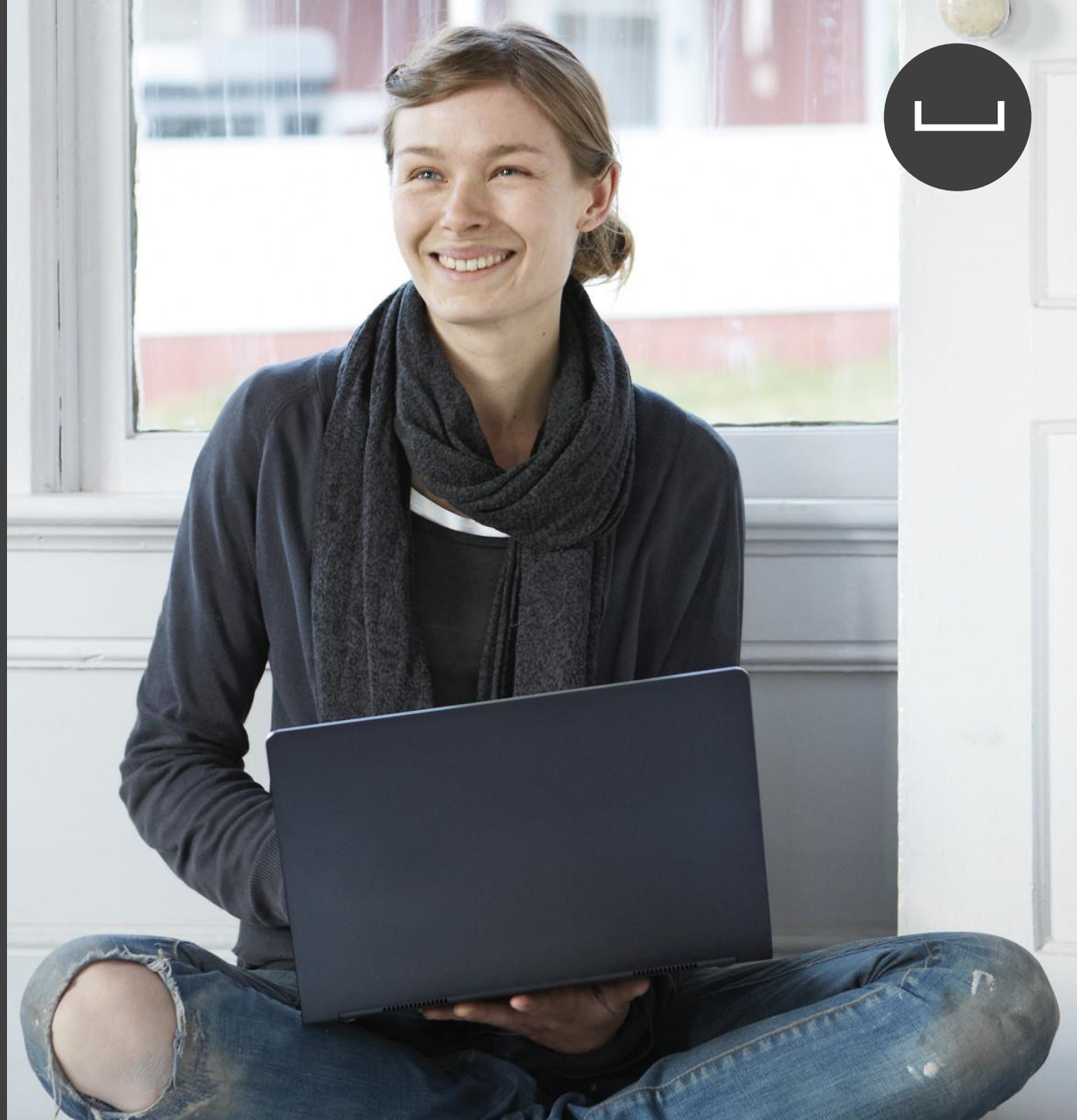
Update: Launch coverage of Earth-observing satellites
Briefing participants will be: David Jarrett, GRACE-FO program executive in the Earth Science Division at NASA Headquarters Frank Webb, GRACE-FO project scientist at NASA's Jet Propulsion Laboratory Frank Flechtner, GRACE-FO project manager at GFZ Phil ...

NASA program to track greenhouse gas is canceled (Update)
The end of the program—called the Carbon Monitoring System (CMS)—which tracked sources and sinks for carbon and made high-resolution models of the planet's flows of carbon—was first reported by the journal Science. "Now, President Donald Trump's ...

APS Celebrates Science of Light with Art
In honor of the role of light in science, culture, and life itself, the United Nations Education,

Bing Autosuggest

Query completion suggestions capabilities, so users can type less and get to what they want faster

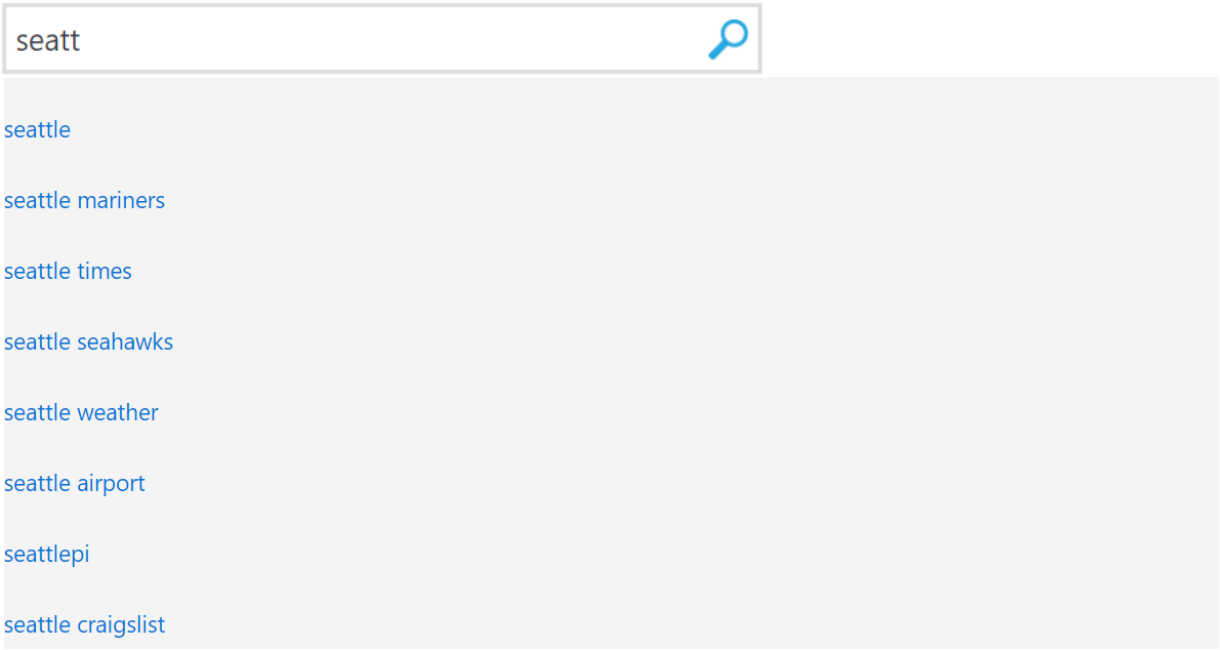


Bing Autosuggest

Populate
Use drop-down lists to suggest queries based on past search history

Narrow
Return detailed contextual suggestions to quickly find preferred search items

Discover
Find, troubleshoot, and diagnose problems quickly



Bing Statistics add-in

Quickly recover statistics like top queries and market distribution

Smart Search Insights

Gather usage details to gain unique business insights

Data Metrics

Real-time view of user's data consumption through multiple metrics

Face API Integration Demo

- What we did
  - Signed up for a Face API key
  - Created a custom table and forms to store and show Face API data
  - Created a business process to send images to the Face API and process the results
- Code is available on the Blackbaud Code Repository

Constituent Photo Analysis

Constituent Photo Analysisi Processes (1)

Add

Name	Description	Selection
Test	Tests	Constituent Photo Analysis 3 (Ad-hoc Query)

Edit Delete

Edit a constituent photo analysis process

Name: Test

Description: Tests

Selection: Constituent Photo Analysis 3 (Ad-h

Save Cancel

David Hendershot

Individual Lookup ID: **8-10000415**

Personal Information

David Hendershot
Nickname:
Maiden:

Contact Information

Primary phone
Primary phone

Primary email
Primary email

Addresses

Primary Relationships

Spouse
Spouse
Household
Add to household
Primary business

Documentation and Interactions

Notes: 0 Note
Media links: 0 Media link
Attachments: 0 Attachment
Interactions: 0 Interaction

Memberships

ID: **Status:**
Expiration:
Level:
Member since:

Show less

Customize tiles

Summary | Contact | Personal Info | Relationships | Revenue | Sales Orders | Memberships | Education | Documentation and Interactions | Communications | History | Smart Fields | Security | Constituent Photo Analysis

Gender:	Male
Estimated age:	32
Anger:	0.0000
Contempt:	0.0000
Disgust:	0.0000
Fear:	0.0000
Happiness:	1.0000
Neutral:	0.0000
Sadness:	0.0000
Surprise:	0.0000

Machine Learning on Azure

Sophisticated pretrained models
To simplify solution development

Vision | Speech | Language | Search

Cognitive Services | Cognitive Search

Popular frameworks
To build advanced deep learning solutions

Pytorch | TensorFlow | Keras | Onnx

Productive services
To empower development teams

Azure Databricks | Azure Machine Learning | Machine Learning VMs

Powerful infrastructure
To accelerate time to value

CPU | GPU | FPGA

Cloud ← Edge → On-premises

Deploy and manage models in cloud, on-premises and on edge

AI infrastructure

AI on data

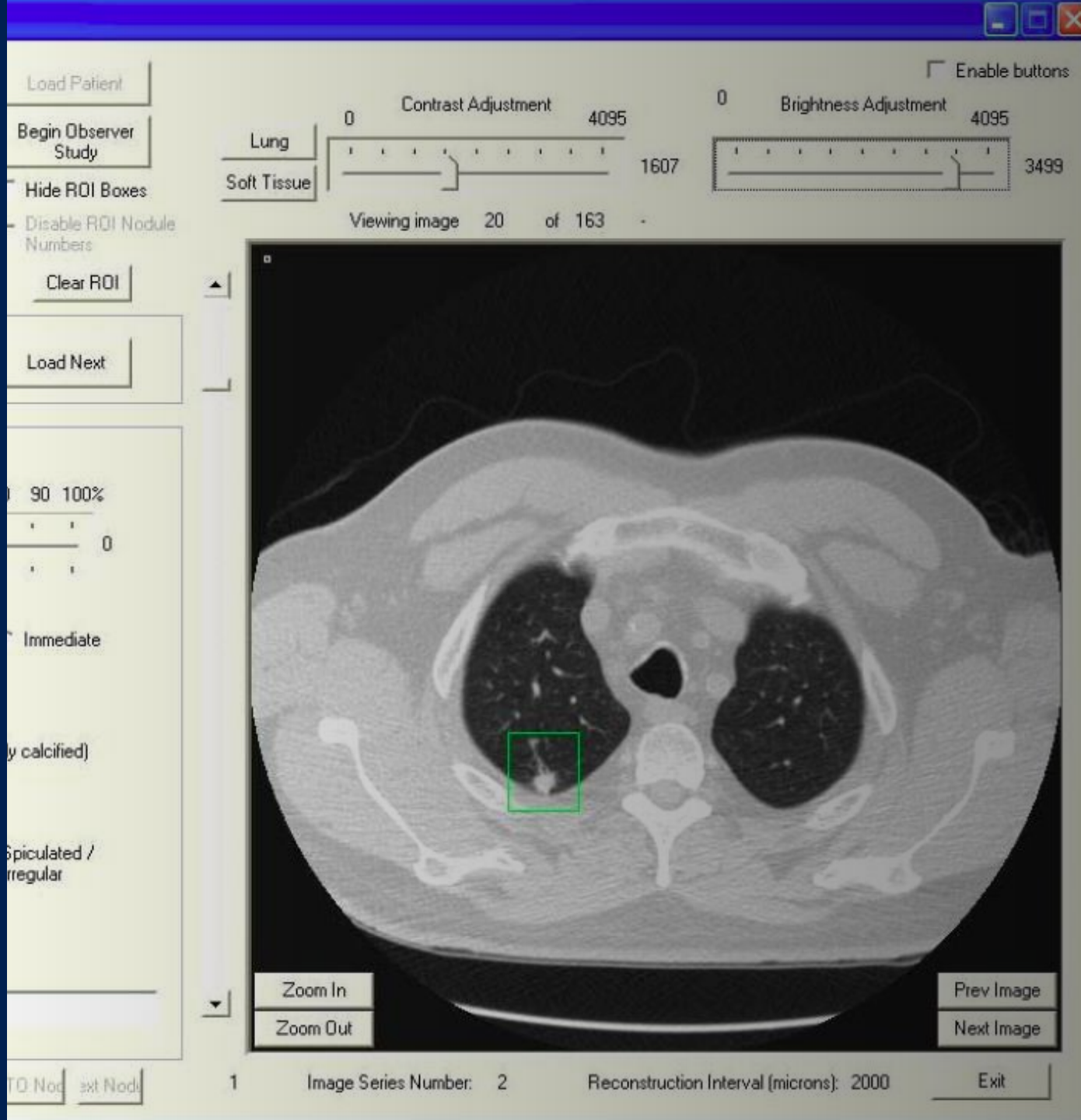
Built-in AI across your data estate.

AI compute

Flexible compute infrastructure from virtually infinite cloud scale to the edge .

AI core infrastructure

The AI supercomputer: CPU, GPU, and (coming next) FPGA.



Tools

Visual Studio Tools for AI

Boost productivity with code-centric AI development and Azure integration.

Azure Machine Learning Workbench

Full lifecycle support for AI and data wrangling productivity.

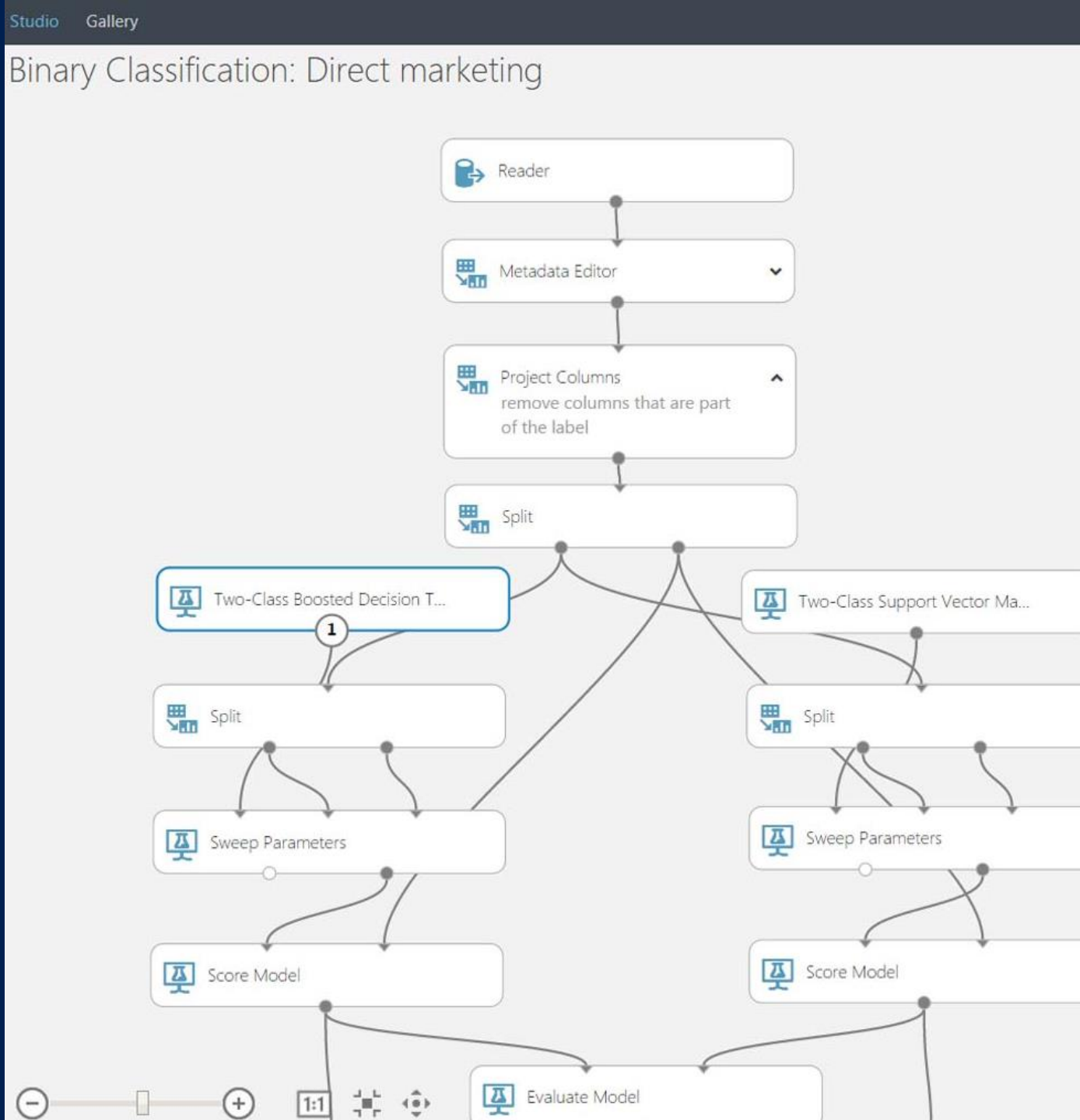
Azure Machine Learning Studio

Drag and drop machine learning development for any skillset.

Open deep learning framework support

Full support for Cognitive Toolkit, TensorFlow, Caffee and others.

Open standard for deep learning (ONNX).



Azure AI

AI Apps & Agents

Azure Cognitive Services

Azure Bot Service

Knowledge Mining

Azure Search

Forms Recognizer

Machine Learning

Azure Databricks

Azure Machine Learning

Azure AI Infrastructure

Knowledge is Power

- Francis Bacon

Knowledge is power, only when put to use – and then only when the use made of it is constructive

- David J. Schwartz

When you know better, you do better

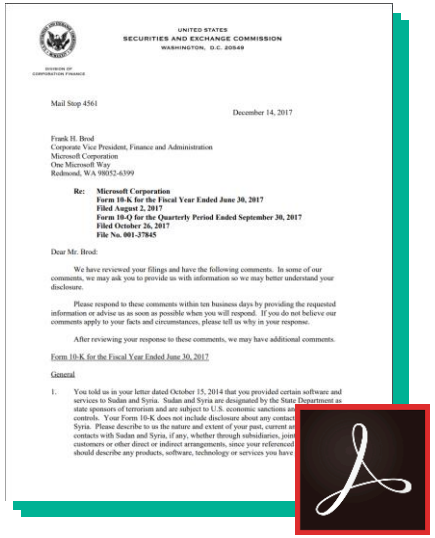
- Maya Angelo

2.5 quintillion

bytes per day

10X the number of seconds since the Big Bang

80%
of business
relevant
information is
unstructured



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF CORPORATION FINANCE

Mail Stop 4561

December 14, 2017

Frank H. Brod
Corporate Vice President, Finance and Administration
Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Re: Microsoft Corporation
Form 10-K for the Fiscal Year Ended June 30, 2017
Filed August 2, 2017
Form 10-Q for the Quarterly Period Ended September 30, 2017
Filed October 26, 2017
File No. 001-37845

Dear Mr. Brod:

We have reviewed your filings and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

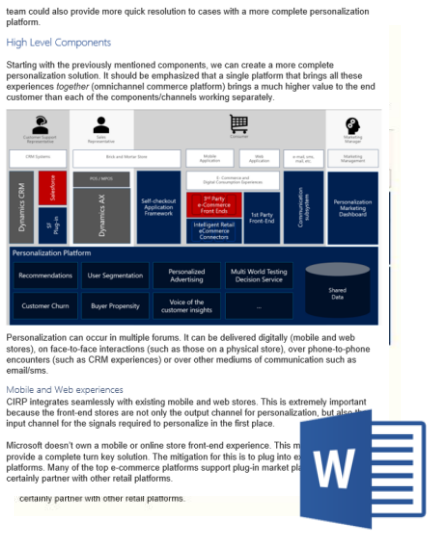
Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended June 30, 2017

General

1. You told us in your letter dated October 15, 2014 that you provided certain software and services to Sudan and Syria. Sudan and Syria are designated by the State Department as state sponsors of terrorism and are subject to U.S. economic sanctions and



team could also provide more quick resolution to cases with a more complete personalization platform.

High Level Components

Starting with the previously mentioned components, we can create a more complete personalization solution. It should be emphasized that a single platform that brings all these experiences *together* (omnichannel commerce platform) brings a much higher value to the end customer than each of the components/channels working separately.

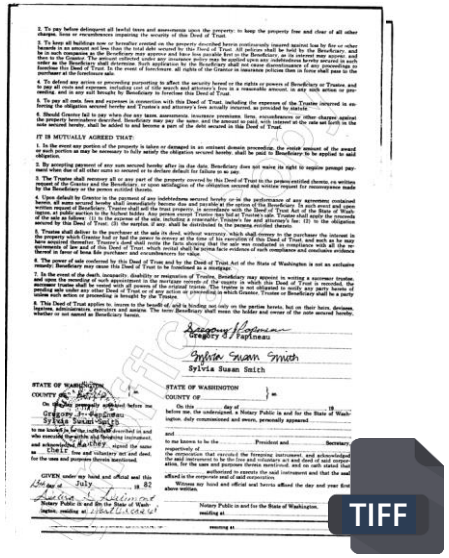
Personalization can occur in multiple forums. It can be delivered digitally (mobile and web stores), on face-to-face interactions (such as those on a physical store), over phone-to-phone encounters (such as CRM experiences) or over other mediums of communication such as email/sms.

Mobile and Web experiences

CIRP integrates seamlessly with existing mobile and web stores. This is extremely important because the front-end stores are not only the output channel for personalization, but also the input channel for the signals required to personalize in the first place.

Microsoft doesn't own a mobile or online store front-end experience. This m
provide a complete turn key solution. The mitigation for this is to plug into e
platforms. Many of the top e-commerce platforms support plug-in market pl
certainly partner with other retail platforms.

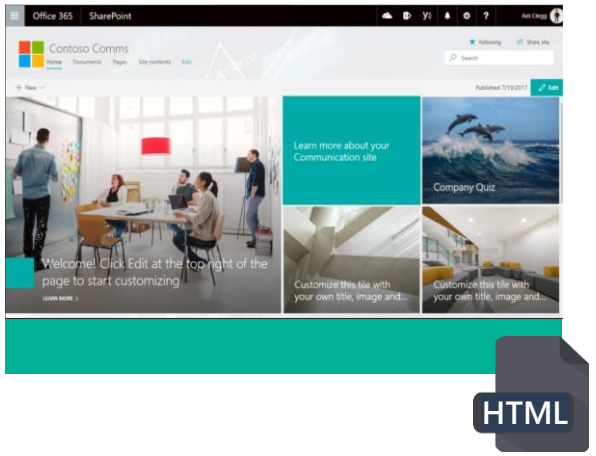
certainly partner with other retail platforms.

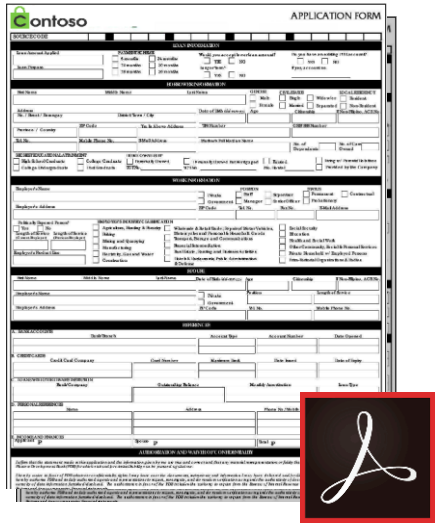


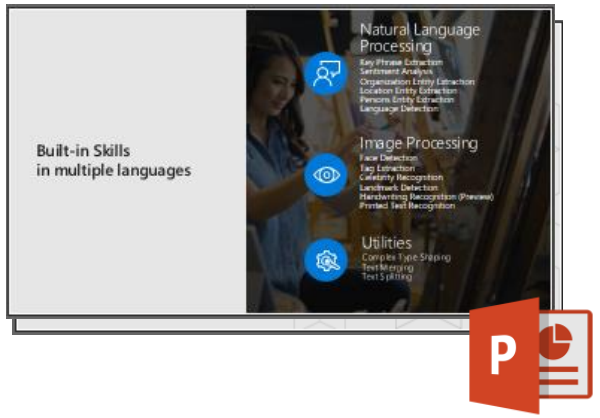
Gregory S. Fapiseau

Sylvia Susan Smith

STATE OF WASHINGTON
COUNTY OF



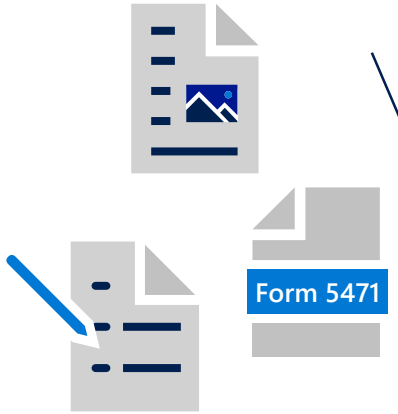




Cognitive Search

A capability of Azure Search

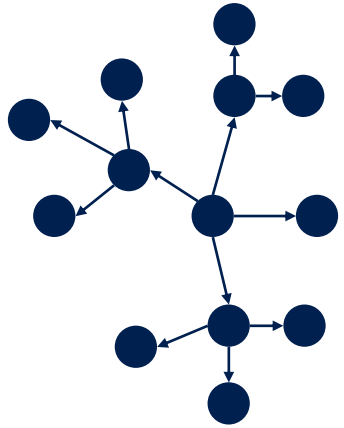
Information



Cutting-edge AI

- Key Phrase extraction
- Location entity extraction
- Sentiment analysis
- Organization entity extraction
- Persons entity extraction
- Language detection
- Face detection
- Celebrity recognition
- Tag extraction
- Custom skills
- Landmark detection
- Printed text recognition

Fully text-searchable rich index



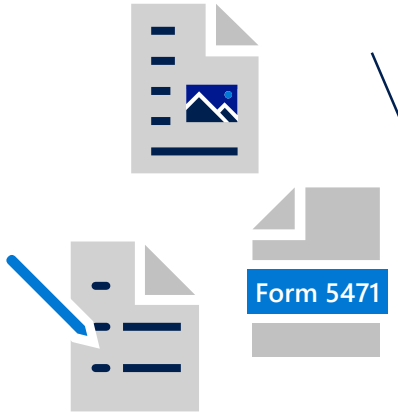
INGEST | ENRICH | EXPLORE

Cognitive Search

A capability of Azure Search

Cognitive Services

Information



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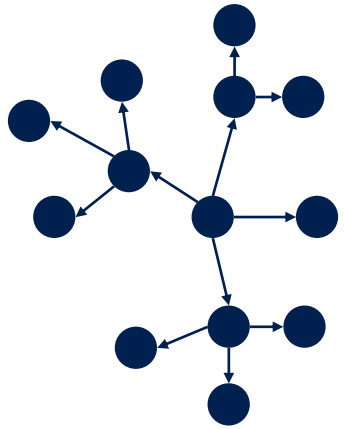
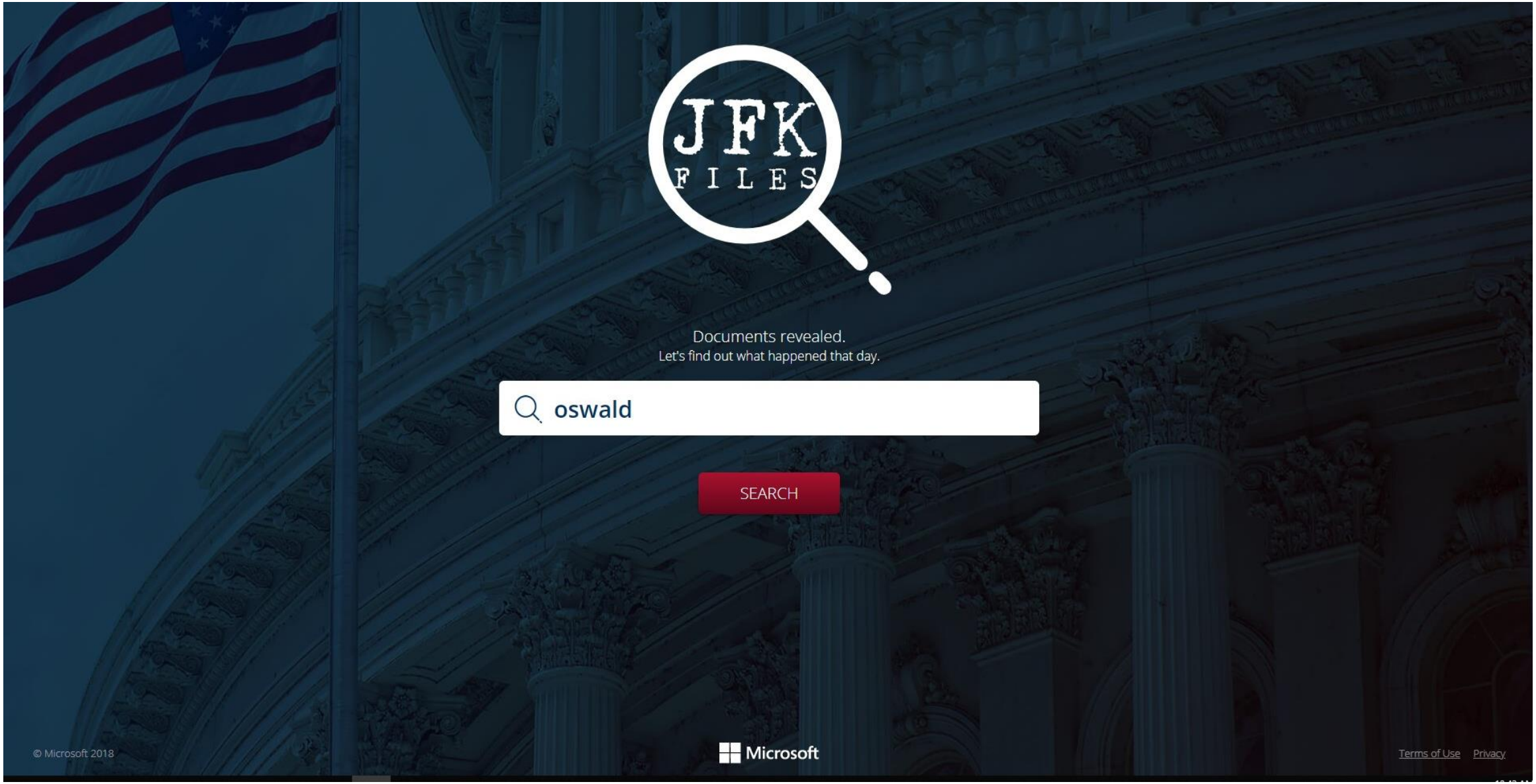
Fully text-searchable rich index



INGEST | ENRICH | EXPLORE


JFK
FILES
Documents revealed.
Let's find out what happened that day.
oswald
SEARCH
© Microsoft 2018
Microsoft
Terms of Use
Privacy

Wolters Kluwer

Sign in

What are you searching for today?

SAMPLE SEARCHES

Documents containing both Microsoft and Apple
Microsoft+Apple

Documents containing Cybersecurity risks
risks:"Cybersecurity"

Documents where fraud and risk within 10 words
"fraud risk"~10

All Comment Letters
exhibitType: "Letter"

SAMPLE DOCUMENTS

FORM 10-K (UNICO AMERICAN CORP)

FORM 10-K (STAR GOLD CORP)

FORM 10-K (DIME COMMUNITY BANCSHARES INC)

FORM 10-K (CELADON GROUP, INC.)

FORM 10-K (COVENANT TRANSPORTATION GROUP INC)

TARGETED SEARCH

Search Term

Area

Filings & Exhibits

Search

Get started for free at
http://azure.com/Cognitive

Learn more on the Cognitive Services documentation

Schedule a workshop to identify areas in your business where analytics and intelligence can drive transformation

Talk with your Microsoft contact about licensing options and partners

Developer resources

Pricing

https://azure.microsoft.com/en-us/pricing/details/cognitive-services/

Documentation

https://docs.microsoft.com/en-us/azure/#pivot=products&panel=cognitive

Client SDKs

https://azure.microsoft.com/en-us/resources/samples/?sort=0&term=cognitive+services
https://github.com/southwood/project-oxford-python

Example Code

https://github.com/jsturtevant/happy-image-tester-django
https://github.com/Microsoft/Cognitive-Face-Android
https://github.com/Microsoft/Cognitive-Samples-IntelligentKiosk

Join Our Community

https://stackoverflow.com/questions/tagged/microsoft-cognitive
https://cognitive.uservoice.com/

Q&A

Microsoft

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Appendix

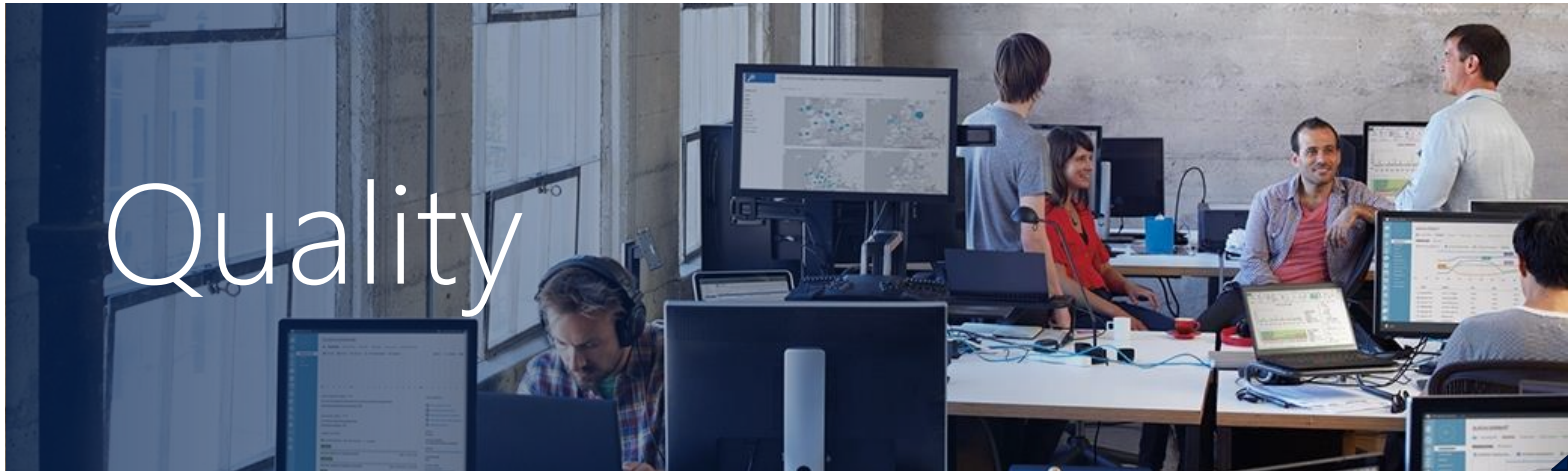
Microsoft Cognitive Services

Democratizing intelligence

APIs in action

<Insert demo title>

Why Microsoft Cognitive Services?



Microsoft Cognitive Services updates

Vision

- Video Indexer
- Computer Vision
- Face
- Emotion
- Content Moderator
- Custom Vision

Speech

- Speaker Recognition
- Bing Speech
- Custom Speech
- Translator Speech
- Unified Speech

Language

- Text Analytics
- Bing Spell Check
- Translator Text
- Language Understanding (LUIS)

Knowledge

- QnA Maker
- Custom Decision

Search

- Bing Entity Search
- Bing Autosuggest
- Bing Search
- Bing Statistics add-in
- Bing Visual Search
- Bing Custom Search

Labs

- Project Gesture
- Project Local Insights
- Project Academic Knowledge
- Project Entity Linking
- Project Knowledge Exploration
- Project Event Tracking
- Project Answer Search
- Project URL Preview
- Project Anomaly Finder
- Project Conversation Learner
- Project Personality Chat

Microsoft Cognitive Services updates

Vision	Speech	Language	Knowledge	Search
Video Indexer	Speaker Recognition	Text Analytics	QnA Maker	Bing Entity Search
Computer Vision	Bing Speech	Bing Spell Check	Custom Decision	Bing Autosuggest
Face	Custom Speech	Translator Text		Bing Search
Emotion	Translator Speech	Language Understanding (LUIS)		Bing Statistics add-in
Content Moderator	Unified Speech			Bing Visual Search
Custom Vision				Bing Custom Search

Microsoft Cognitive Services

Vision

Video Indexer

Computer Vision

Face

Emotion

Content Moderator

Custom Vision

Speech

Speaker Recognition

Bing Speech

Custom Speech

Translator Speech

Unified Speech

Language

Text Analytics

Bing Spell Check

Translator Text

Language Understanding (LUIS)

Content Moderator

Knowledge

QnA Maker

Custom Decision

Search

Bing Entity Search

Bing Autosuggest

Bing Search

Bing Statistics add-in

Bing Visual Search

Bing Custom Search