



CANDI
ADVANCED BUSINESS AND DIGITAL SOLUTIONS

Be Smart with Intelligent Decisions

How Microsoft Cognitive
Services help us for
intelligent decisions



Who am I?



CANDI

ADVANCED BUSINESS AND DIGITAL SOLUTIONS

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MCP / P-Seller

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<https://candi.gr>

Our Services



Custom Development &
Business Solutions



Cross Platform
Mobile Applications



Internet Marketing
& AdWords

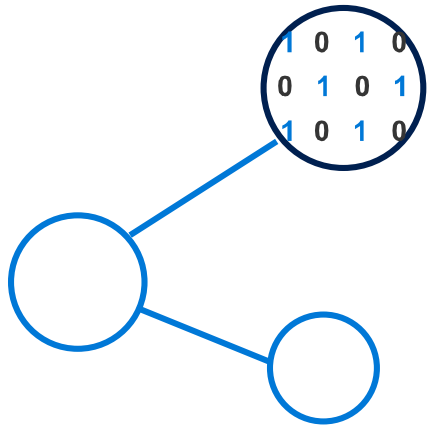


Collaboration &
Reporting



E-Commerce

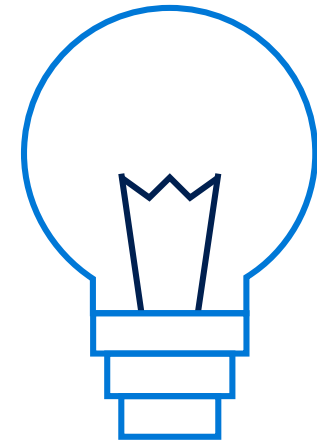
Business is being transformed by three trends



Big Data

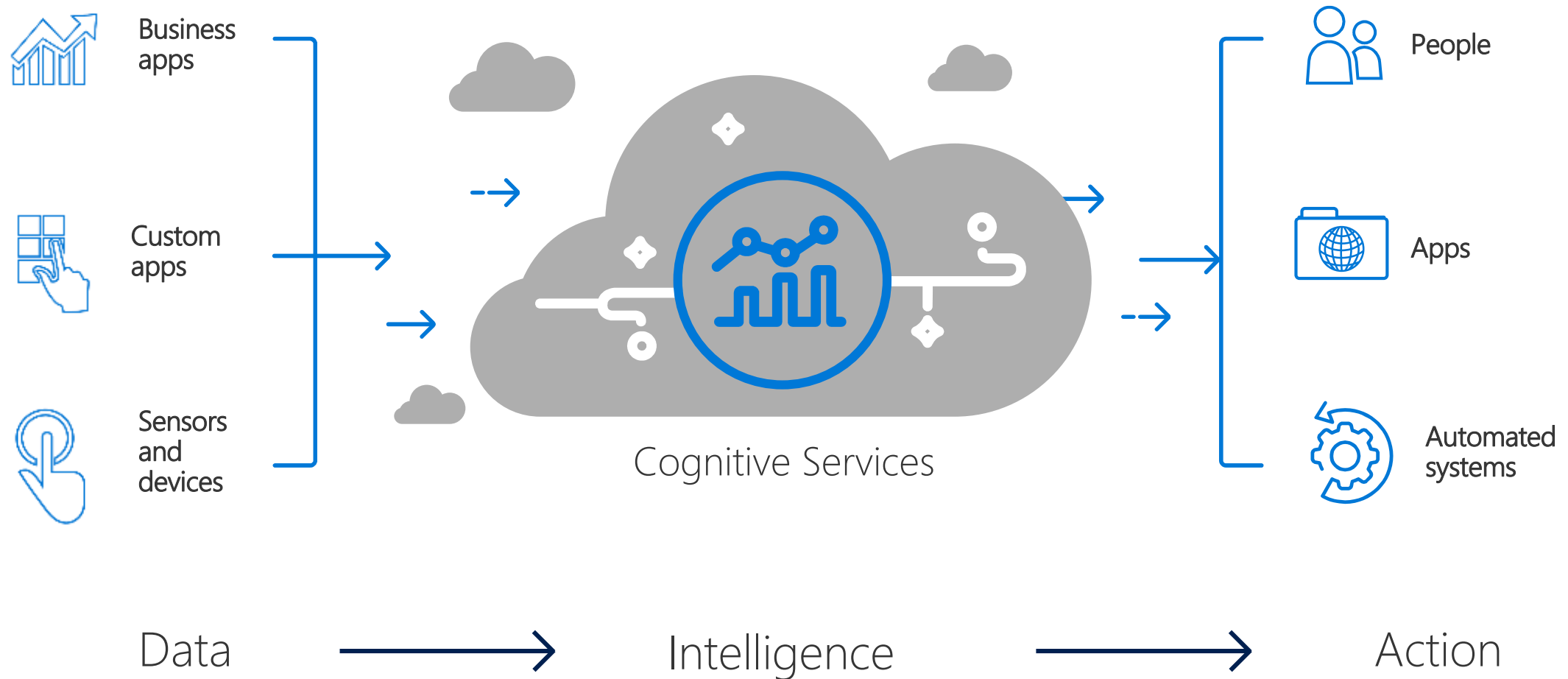


Cloud

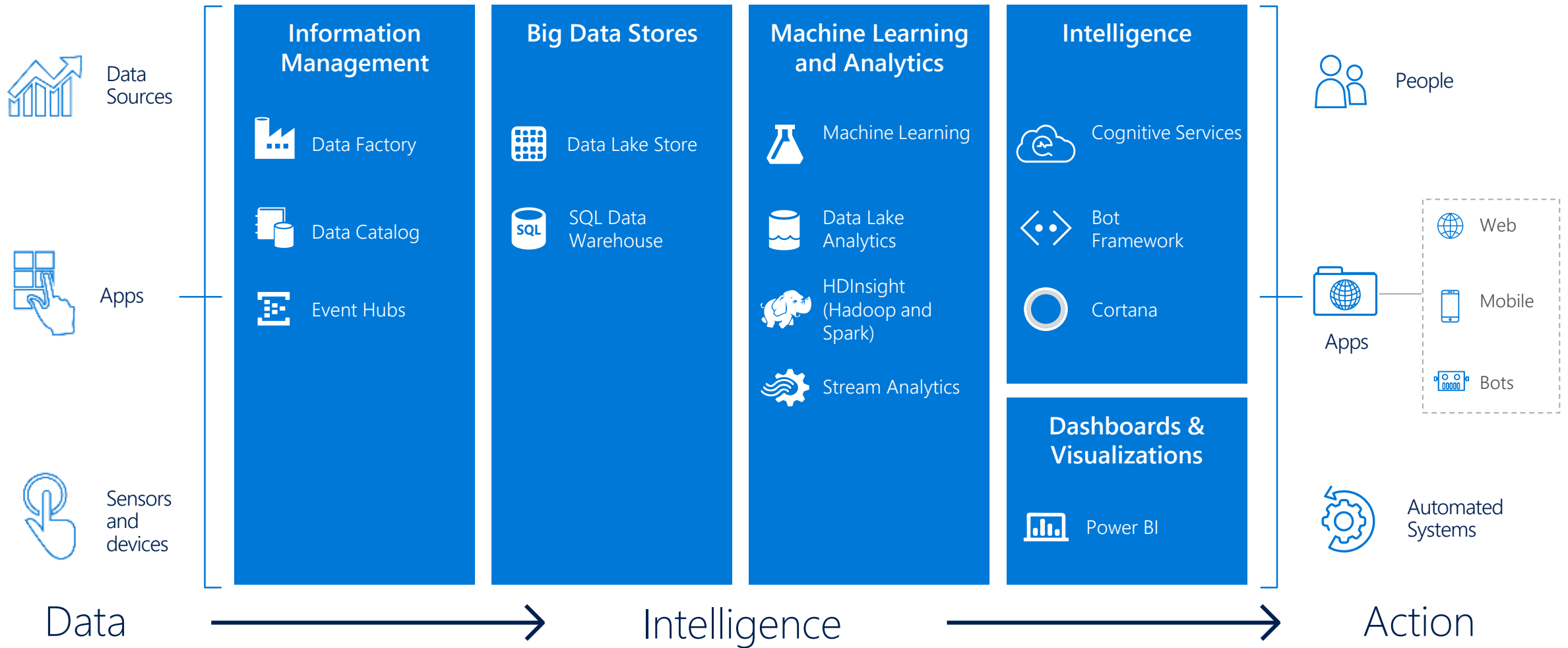


Intelligence

Stay ahead of the curve with Microsoft Cognitive Services



Easily turn data into intelligent action



Why Microsoft Cognitive Services?

Easy

Roll your own with REST APIs
Simple to add: just a few lines of code required



Flexible

Integrate into the language and platform of your choice
Breadth of offerings helps you find the right API for your app
Bring your own data for your custom experience



Tested

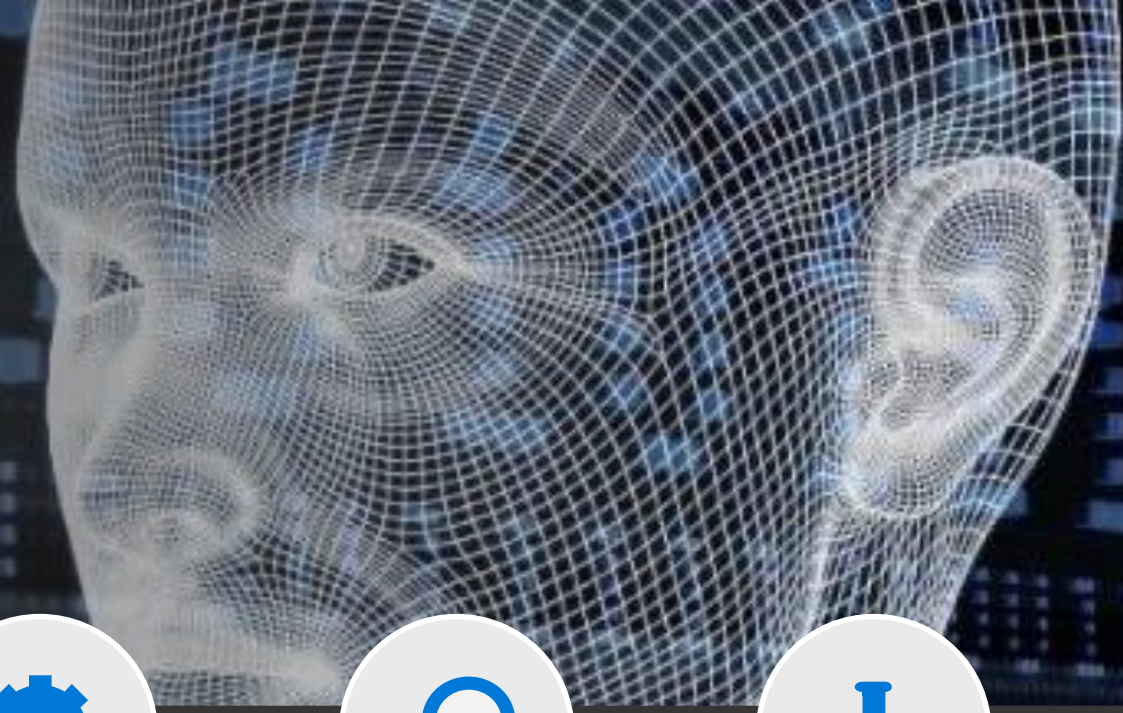
Built by experts in their field from Microsoft Research, Bing, and Azure Machine Learning
Quality documentation, sample code, and community support

GitHub



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

Tap into rich knowledge amassed from the web, academia, or your own data



Search

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

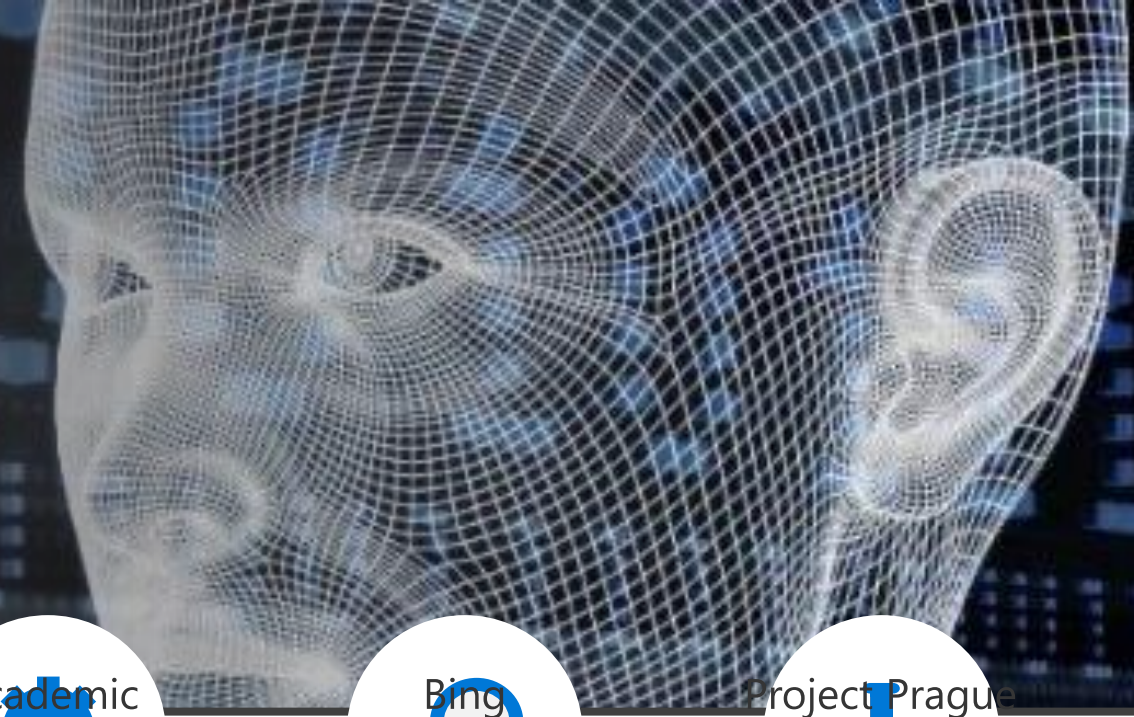


Labs

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

Microsoft Cognitive Services

Give your apps a human side



Computer Vision
Content Moderator

Emotion

Vision

Video

Video Indexer

Custom Vision
Service

Bing Speech
Speaker
Recognition

Custom Speech
Speech

Bing Spell Check
Linguistic Analysis

Text Analytics

Translator Text
& Speech

Web Language
Model

Language
Understanding

Academic
Knowledge
Entity Linking
Knowledge
Knowledge

Recommendations

QnA Maker

Custom Decision
Service

Bing
Autosuggest
Bing Image
Search
Bing News
Search

Bing Video
Search

Bing Web Search

Bing Entity
Search

Bing Custom
Search

Project Prague
(gesture)
Project Cuzco (events)
Project Johannesburg
(routing)
Labs

Project Nanjing
(isochrones)

Project Abu Dhabi
(distance matrix)

Project Wollongong
(location)

Microsoft Cognitive Services

Give your apps a human side



Vision

Computer Vision
Content Moderator
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Face
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Video Indexer



Speech

Bing Speech
Speaker
Recognition



Language

Bing Spell Check
Linguistic Analysis
Text Analytics
Translator Text
& Speech
Web Language
Model



Knowledge

Academic
Knowledge
Entity Linking
Knowledge
Exploration
Recommendations
QnA Maker



Search

Bing
Autosuggest
Bing Image
Search
Bing News
Search
Bing Video
Search
Bing Web Search
Bing Entity
Search



Labs

Project Prague
(gesture)
Project Cuzco (events)
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Project Nanjing
(isochrones)
Project Abu Dhabi
(distance matrix)
Project Wollongong
(location)

CUSTOMIZATION

Custom Vision
Service

Custom Speech
Service

Language
Understanding

Custom Decision
Service

Bing Custom
Search

Microsoft Cognitive Services

Customization

The set of custom services available allowing customers to use their data with algorithms



Vision



Speech



Language



Knowledge



Search



Labs

Custom Vision
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Custom Speech
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Search



Vision



Computer Vision API

Distill actionable information from images



Face API

Detect, identify, analyze, organize, and tag faces in photos



Emotion API

Personalize experiences with emotion recognition



Video API

Analyze, edit, and process videos within your app



Content Moderator

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



Custom Vision Service

Customizable web service that learns to recognize specific content in imagery



Video Indexer

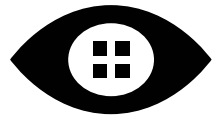
Process and extract smart insights from videos

Vision



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

Computer Vision | Emotion | Face |
Video | Content Moderator



Computer Vision APIs

Analyze an image

Understand content within an image

OCR

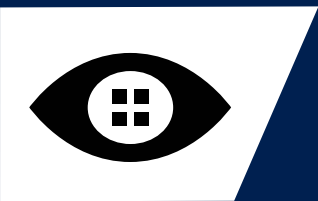
Detect and recognize words within an image

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

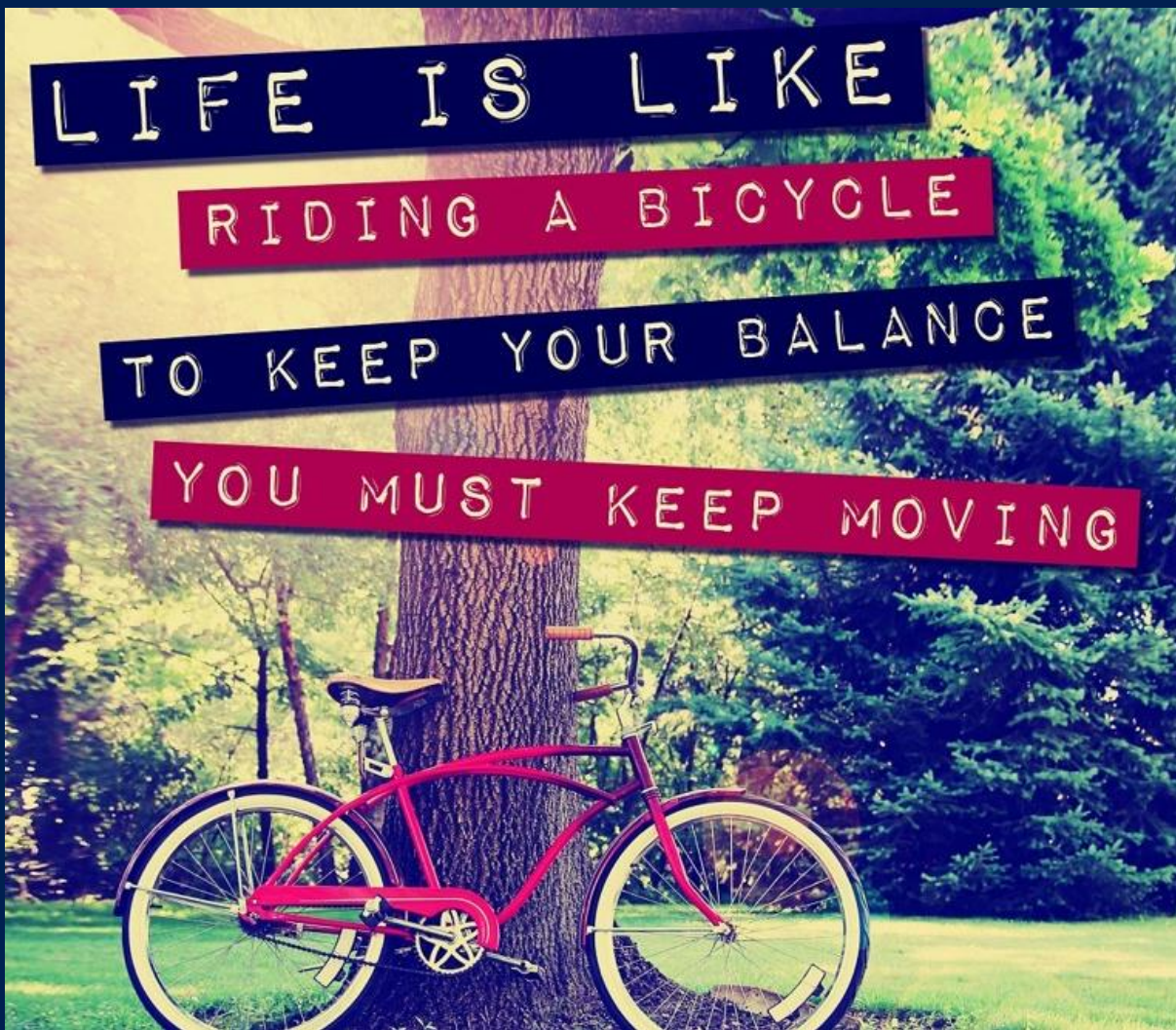
Content of image

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



Good at

Scanned documents,
Photos with text

Fine grained location information,

LI
RI
TC
YC

```
{  
  "language": "en",  
  "orientation": "up",  
  "regions": [  
    {  
      "boundingBox": "41,77,918,440",  
      "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"  
            }  
          ]  
        }  
      ]  
    }  
  ]  
}
```

...



Speech



Bing Speech API

Convert speech to text and back again, and understand its intent



Speaker Recognition API

Give your app the ability to know who's talking



Custom Speech Service

Fine-tune speech recognition for anyone, anywhere

Speech



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

Custom Recognition | Speaker Recognition | Speech



Speaker recognition API

Speaker verification

Check if two voices are the same

Speaker identification

Identify who is speaking



Speaker recognition APIs

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





Language



Bing Spell Check API

Detect and correct spelling mistakes within your app



Web Language Model API

Leverage the power of language models trained on web-scale data



Linguistic Analysis API

Easily parse complex text with language analysis



Language Understanding Intelligent Service

Teach your apps to understand commands from your users



Text Analytics API

Detect sentiment, key phrases, topics, and language from your text



Translator

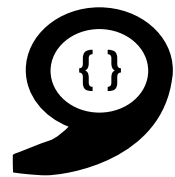
Easily perform speech and text translation

Language



Process text and learn how to recognize what
users want

Bing Spell Check | Language Understanding |
Linguistic Analysis | Text Analytics | Web Language Model |
Translator Text and Speech



Language Understanding

Understand what your users are saying
Use pre-built Bing and Cortana models or create your own



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
    }
  ]
}
```



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

Topic detection

Use clustering techniques to identify the trending topics on a large set of text records

Language detection

Identify the language, 120 supported languages



Knowledge



Academic Knowledge API

Explore relationships among academic papers, journals, and authors



Knowledge Exploration Service

Add interactive search over structured data to your project



Entity Linking Service

Contextually extend knowledge of people, locations, and events



Recommendations API

Provide personalized product recommendations for your customers



Custom Decision Service

Create custom experiences with adaptive, contextual decision-making



QnA Maker

Distill information into conversational, easy-to-navigate answers

Knowledge



Tap into rich knowledge amassed from
the web, academia, or your own data

Academic Knowledge

Entity Linking | Knowledge Exploration

Recommendations | QnA Maker



Search



Bing Web Search API

Connect powerful search to your apps



Bing Image Search API

Bring advanced image and metadata search to your app



Bing Video Search API

Trending videos, detailed metadata, and rich results



Bing News Search API

Link your users to robust and timely news searches



Bing Autosuggest API

Give your app intelligent autosuggest options for searches



Bing Entity Search

Enrich user experiences with contextual entity search results



Bing Custom Search

Create a highly-customized web search experience

Search



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

Bing Web Search | Bing Image Search

Bing News Search | Bing Video Search

Bing Auto Suggest



Microsoft Cognitive Services Labs

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



Project Prague

Gesture based controls



Project Cuzco

Event associated with Wikipedia



Project Johannesburg

Route logistics



Project Nanjing

Isochrones calculations



Project Abu Dhabi

Distance matrices



Project Wollongong

Score location attractiveness

I am sure that you
are wondering
how the cognitive
services can be
applied in your
business.

We are here
for you!!!

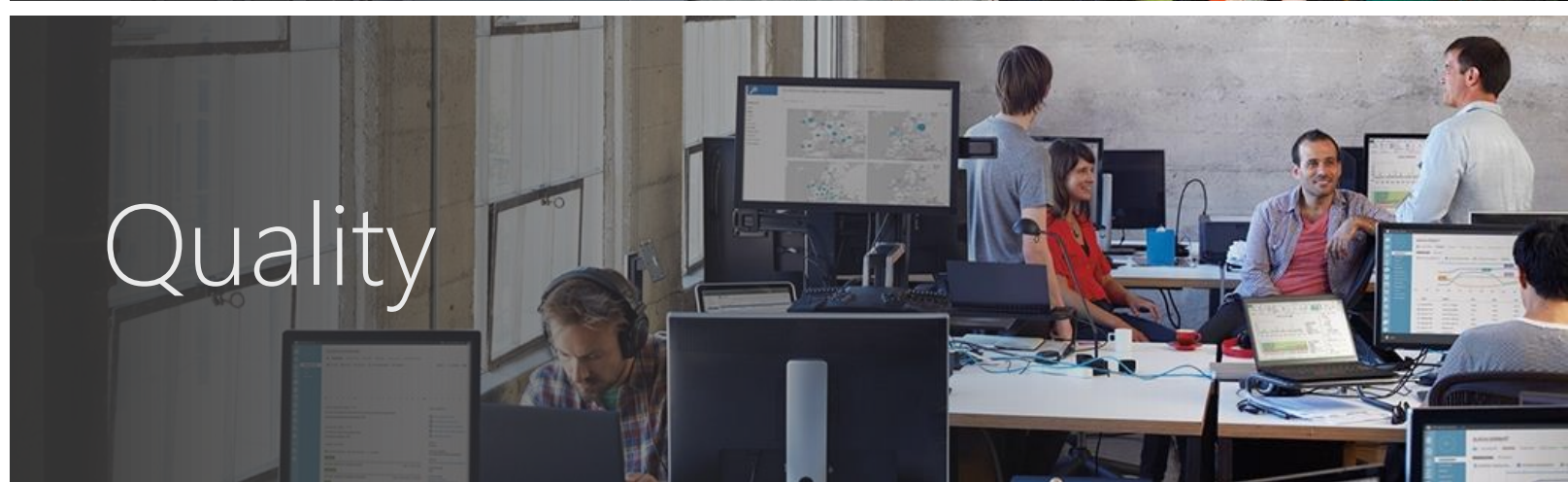
Easy



Flexible



Quality



Q&A

Thank you! And feel free to contact me...



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