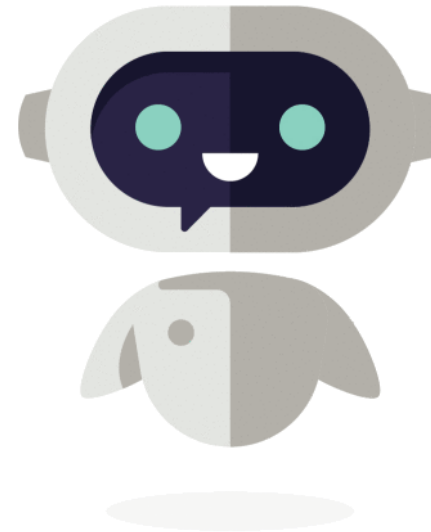


Hack AI – ML Microsoft

Septiembre 2018

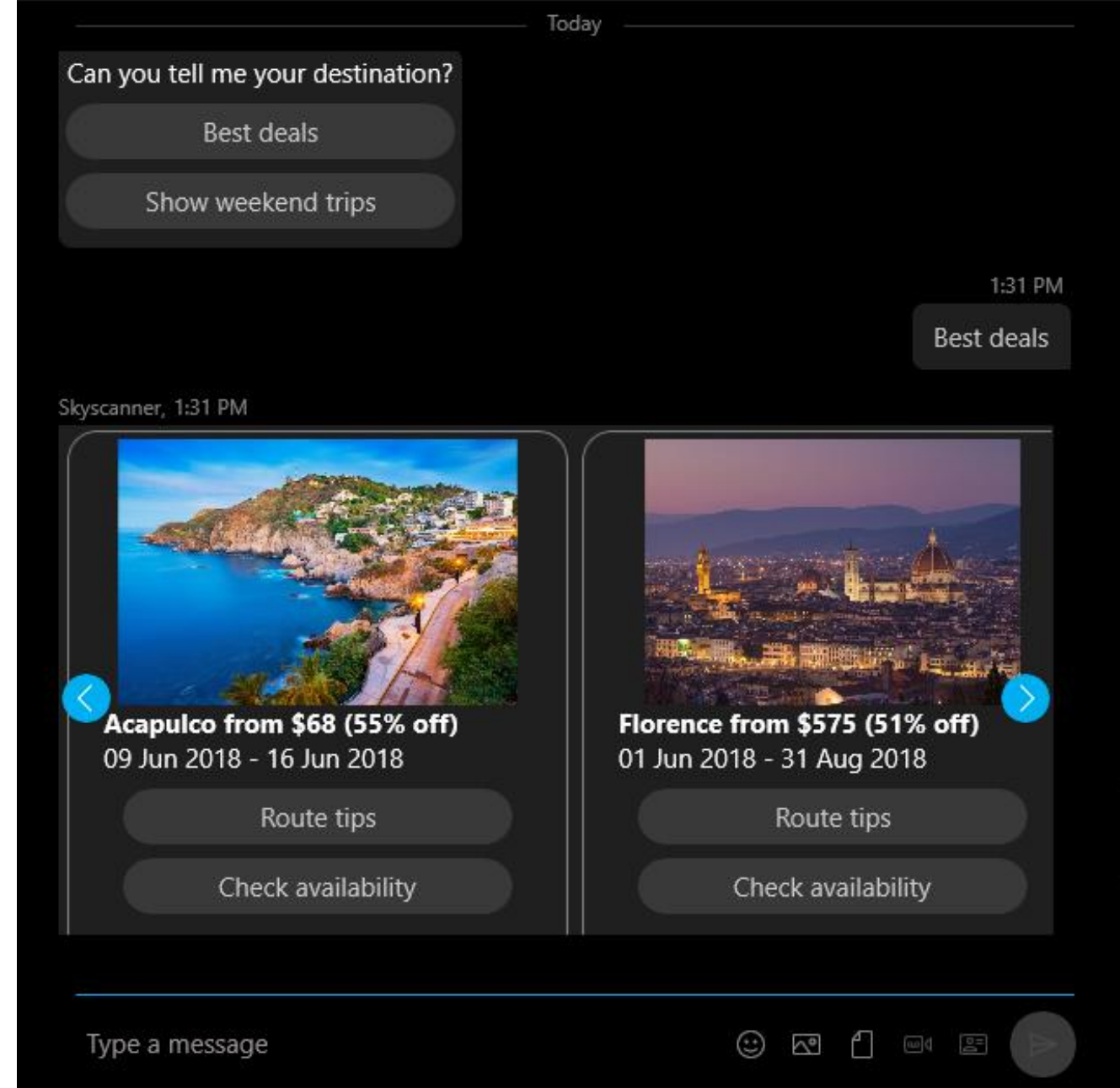
¿Qué son los ChatBots?

- Los Bots son chats que tienen funciones como:
 - Automatización (crear un recordatorio para la reunión de la tarde)
 - Control de información interna
 - Relación con el cliente
 - Agendar citas
 - Búsqueda de información
 - Solicitudes de ayuda y soporte



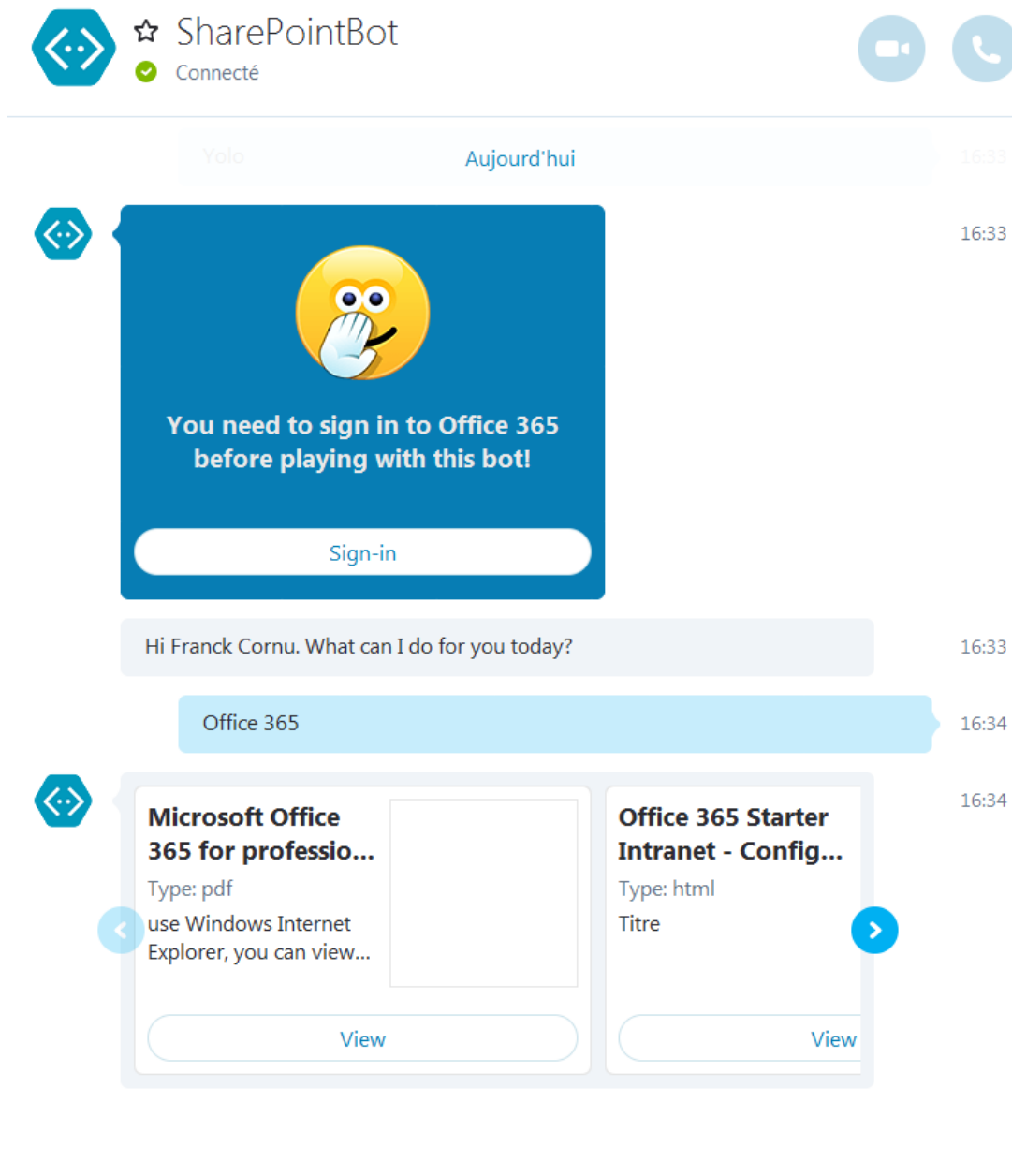
¿Qué son los ChatBots?

- Pueden recibir y enviar información sin lenguaje
 - Botones
 - Carruseles
 - Gráficas
 - Audio



¿Qué son los ChatBots?

- Aplicaciones con una nueva interfaz
 - Rápido acceso
 - Multiplataforma
 - Fácil de desarrollar y desplegar
 - Interacciones naturales



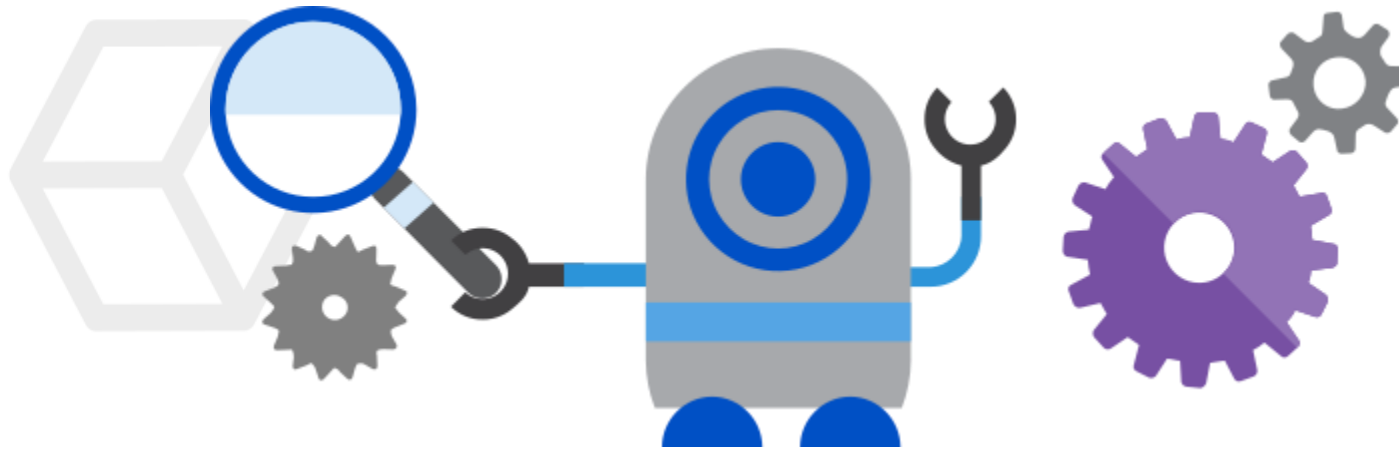
¿Qué son los ChatBots?

- Aplicaciones con una nueva interfaz
 - Rápido acceso
 - Multiplataforma
 - Fácil de desarrollar y desplegar
 - Interacciones naturales



Importancia de los ChatBots

- Integración de aplicaciones Convergencia de tecnologías
- Herramientas y servicios inteligentes permiten desarrollar ChatBots fácilmente
- Variedad de canales de comunicación.



Analítica de bots

Genera una base de conocimiento de las conversaciones del ChatBot con los usuarios para análisis y toma de decisiones.

GRAND TOTALS

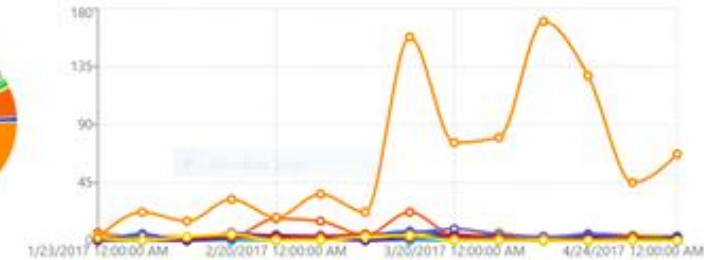
985 86k

Users Messages

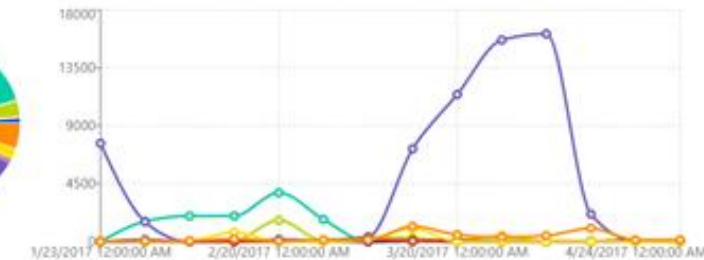
RETENTION - % USERS WHO MESSAGED AGAIN (LAST 10 DAYS)

Date	Users	Days later									
		1	2	3	4	5	6	7	8	9	10
4/15/2017	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
4/16/2017	8	13%	13%	13%	13%	13%	13%	0%	13%	13%	
4/17/2017	11	27%	9%	9%	18%	9%	0%	9%	9%		
4/18/2017	27	30%	7%	7%	4%	0%	19%	7%			
4/19/2017	14	14%	7%	7%	0%	43%	14%				
4/20/2017	13	8%	8%	0%	8%	8%					
4/21/2017	13	8%	0%	8%	8%						
4/22/2017	3	0%	67%	67%							
4/23/2017	0	0%	0%								
4/24/2017	13	31%									

USERS



MESSAGES



856

skype

409

sms

285

directline

1.9k

wechat

2.7k

facebook

4.5k

wechat

273

groupme

11k

kik

30

msteams

979

email

62k

slack

358

telegram

ERRORS

Create more personal
computing



Conversations as a platform



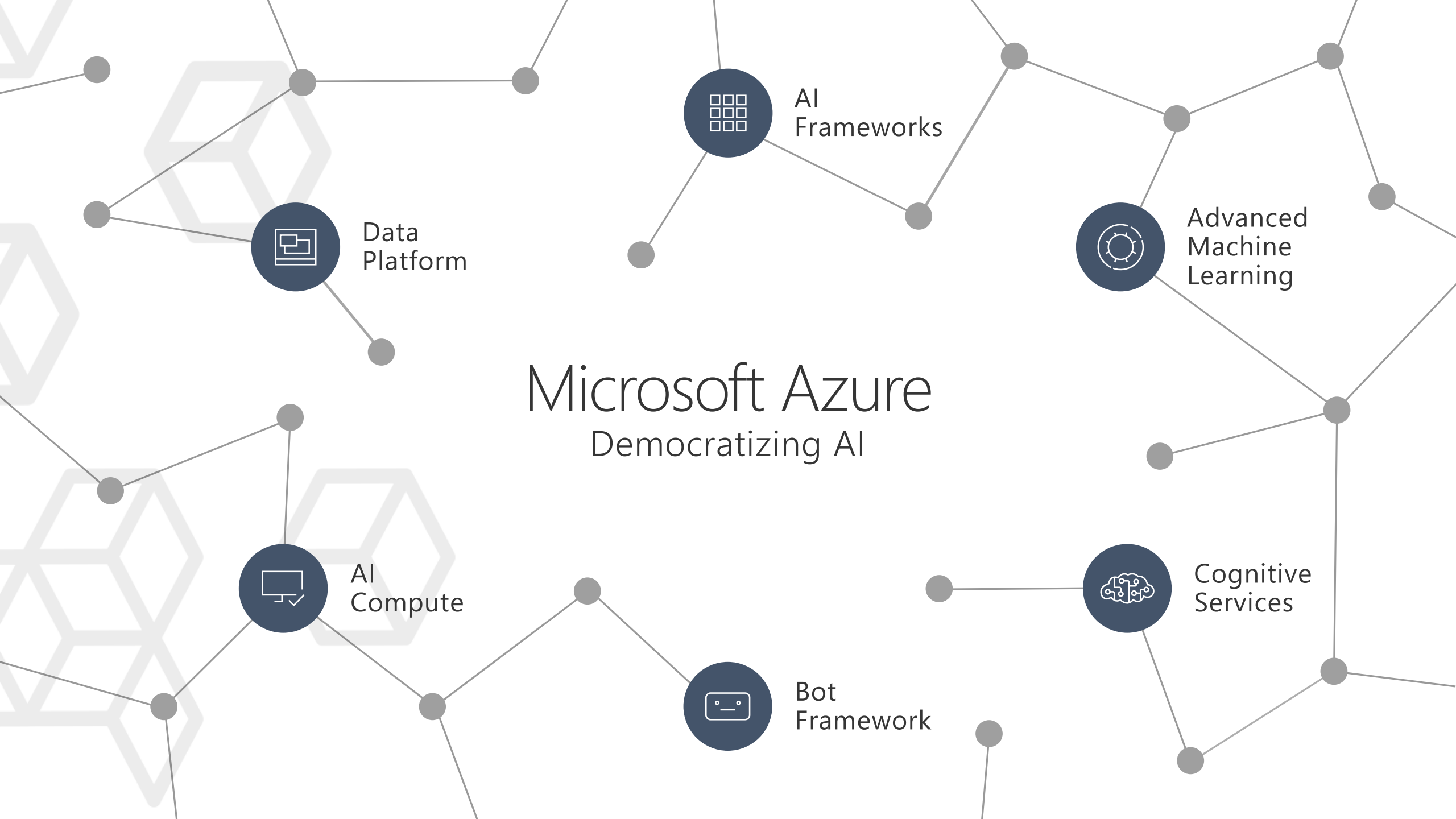
Build the intelligent
cloud platform



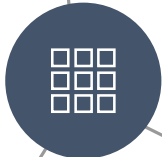
Reinvent productivity
& business processes

Más de 1,000 empresas utilizan Microsoft Bot Framework

Scenario	Retail	Finance	Insurance	Telecoms	Government	Automotive	Manufacturing	Healthcare	Media	Events
Customer service	✓	✓	✓	✓	✓	✓	✓	✓		✓
Customer retail	✓	✓	✓	✓				✓		
Audio/speech analysis	✓	✓	✓	✓	✓				✓	
Translation		✓	✓							
Surveillance		✓			✓					
Knowledge extraction		✓	✓	✓			✓			
Video/photo analysis		✓			✓				✓	
Product identification	✓						✓	✓		
Digital assistant						✓				
Footfall analysis	✓									✓
HD maps and object detection						✓				



Data Platform



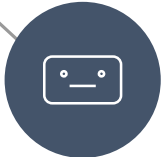
AI Frameworks



Advanced Machine Learning



AI Compute



Bot Framework



Cognitive Services

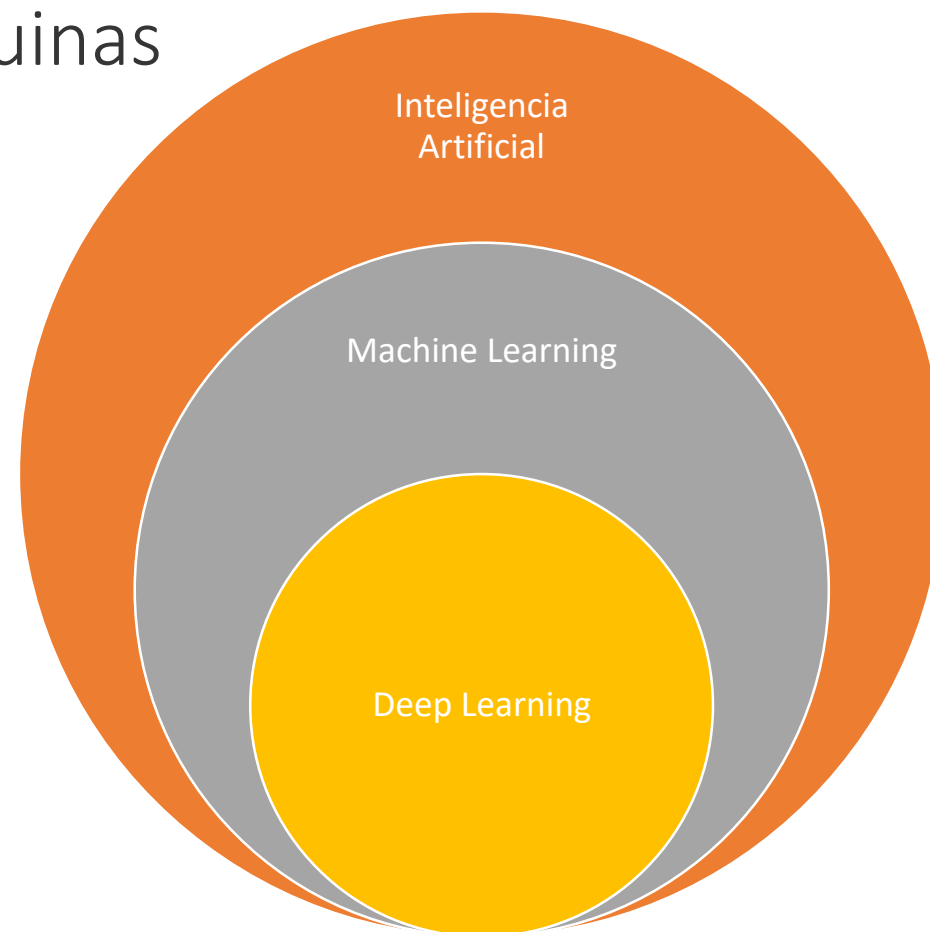
Microsoft Azure

Democratizing AI

¿Que es Inteligencia Artificial?

Inteligencia humana exhibida por las máquinas

- Aplicaciones:
 - Procesamiento natural del lenguaje
 - Computer Vision
 - Detección de objetos
 - Clasificación de imágenes
- Métodos:
 - Redes neuronales profundas (DNN)
 - Redes neuronales convolucionales (CNN)
 - Redes neuronales recurrentes (RNN)



The Microsoft AI platform: Azure & AI

Services



Infrastructure



Tools



Microsoft AI Platform

Azure AI Services

PRE-BUILT AI

Cognitive Services

CONVERSATIONAL AI

Bot Service



CUSTOM AI

Azure Machine Learning

Azure Infrastructure

AI ON DATA

Cosmos DB

SQL DB

SQL DW

Data Lake

Search

DSVM

Batch AI

ACS

IoT Edge

101010
010101
101010

CPU, FPGA, GPU

AI COMPUTE

CODING & MANAGEMENT TOOLS

VS Tools for AI

Azure ML Studio

Azure ML Workbench

Others (PyCharm, Jupyter Notebooks...)



DEEP LEARNING FRAMEWORKS

3rd Party

Cognitive Toolkit

TensorFlow

Caffe

Others (Scikit-learn, MXNet, Keras, Chainer, Gluon...)



Data Science VM

by Microsoft

Create Virtual Machine >

- Cree máquinas Windows y Linux en minutos
- Amplia gama de configuraciones
- Escala a lo que necesitas
- Pague solo por lo que usa
- Precargado con un conjunto completo de herramientas y utilidades diseñadas específicamente para el científico de datos pro



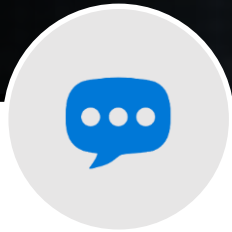
Microsoft Cognitive Services

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



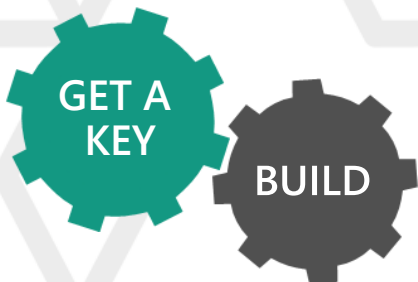
Labs

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

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



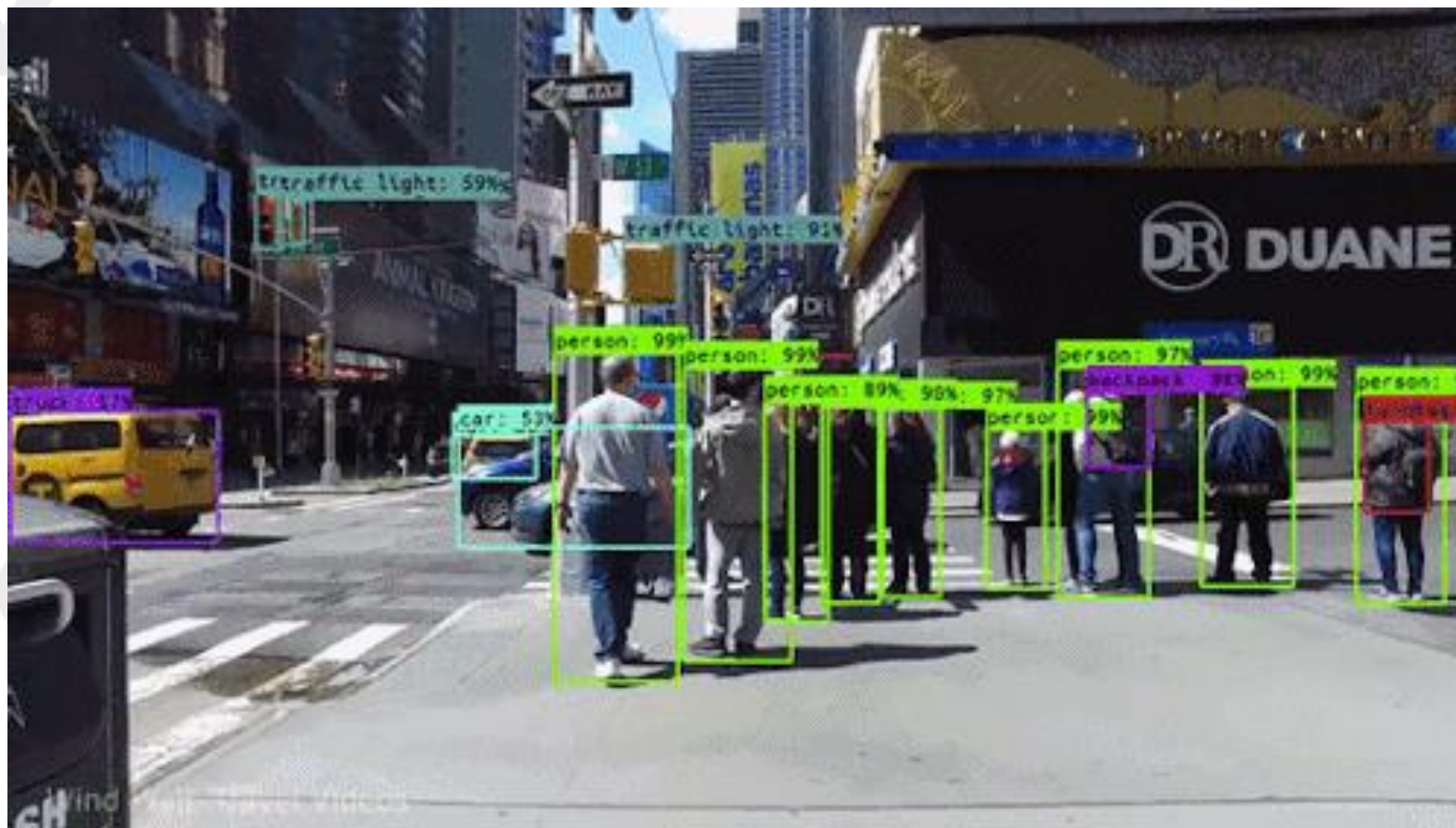
Tested

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

GitHub



Casos de uso



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

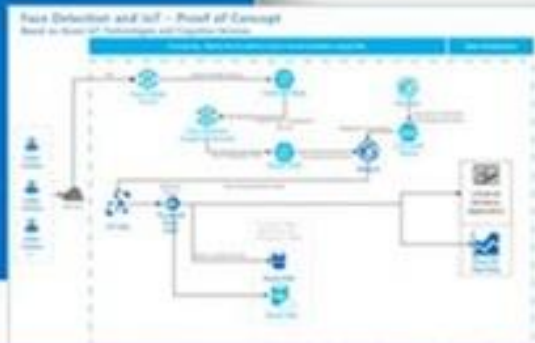
Dominant Color Background	White
Dominant Color Foreground	Grey
Dominant Colors	White
Accent Color	

Experiencias – Casos de Uso

Identificación de Faltantes en Góndolas

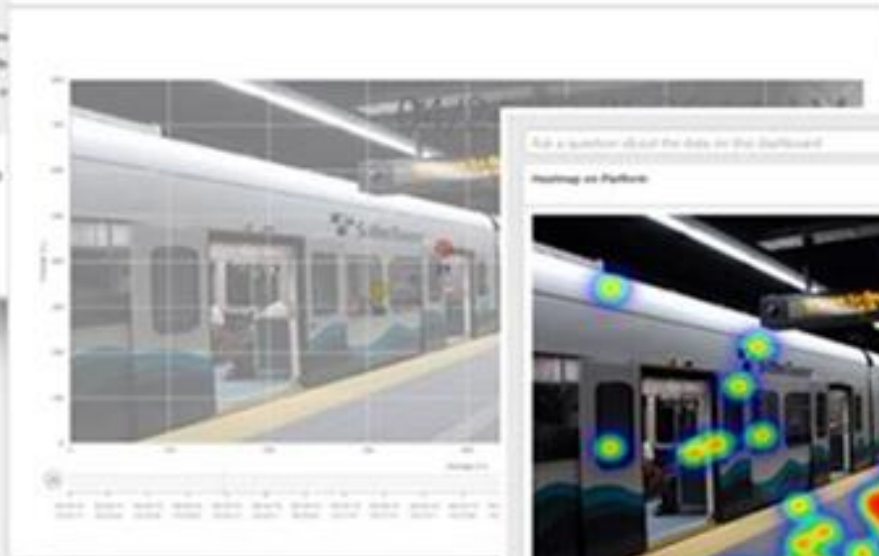


IoT

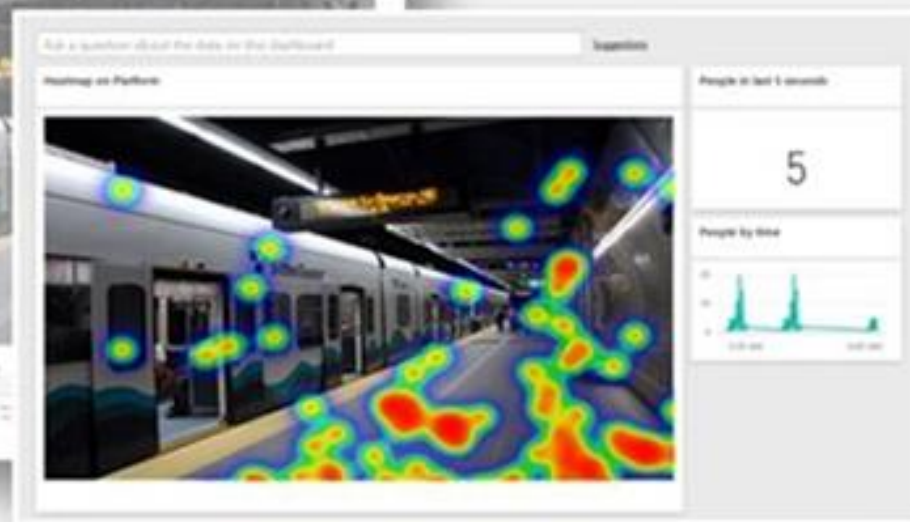


Prepared for
Modern Apps CSE
20 March 18
Version 1.0 Final

Prepared by
Tony Feltus
JH Lee
Gonzalez



Face

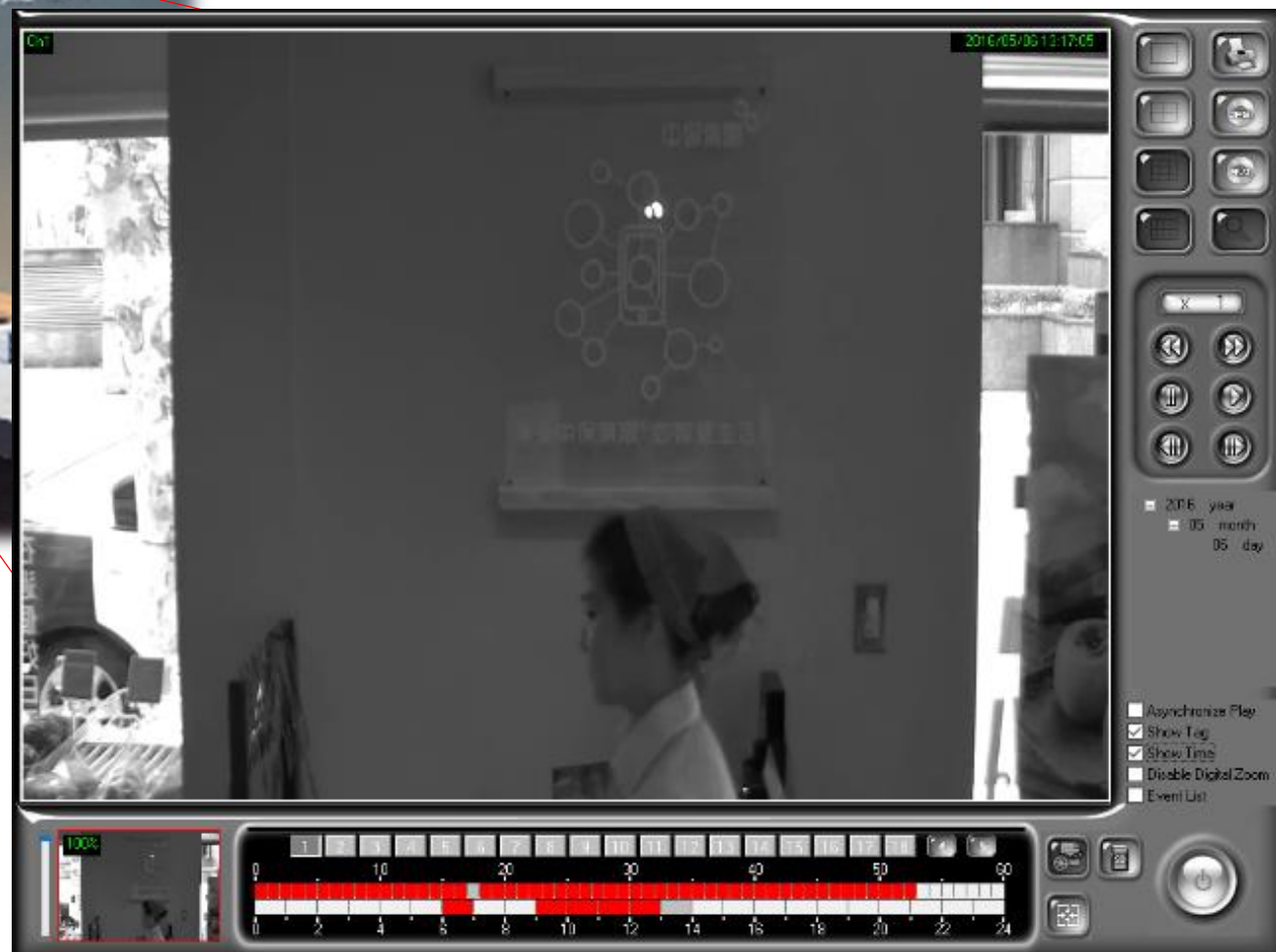


Power BI

Video Camera for Visitor Counting & Tracking

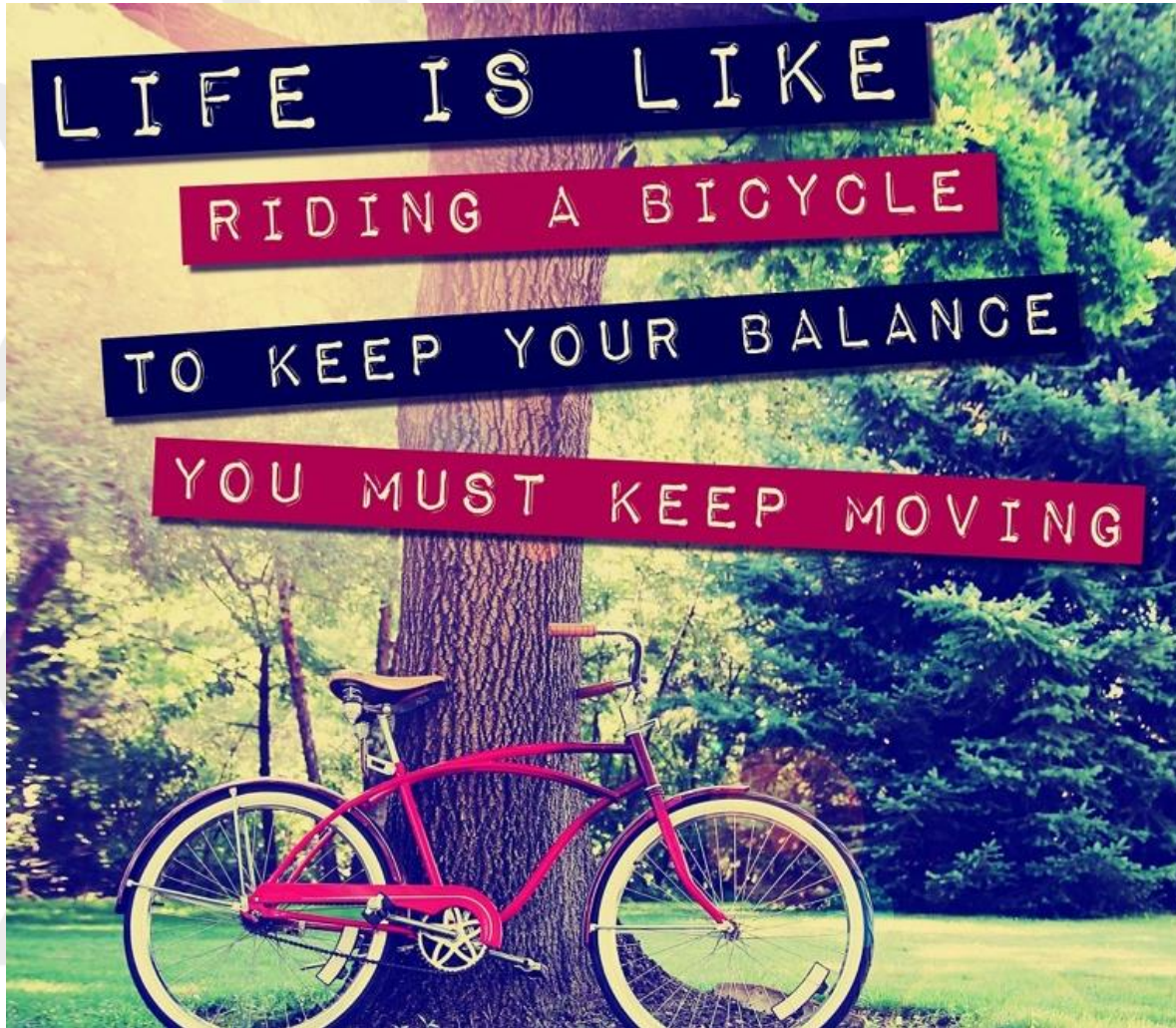


(示意圖)





OCR



Good at

Scanned documents

Photos with text

Fine grained location information,

LIFE

RIDING

TO

YOU

```
JSON:
{
  "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"
            }
          ]
        }
      ]
    }
  ]
}
```

Stabilization

The Stabilization API provides automatic video stabilization and smoothing for shaky videos

This API uses many of the same technologies found in Microsoft Hyperlapse

Best For:

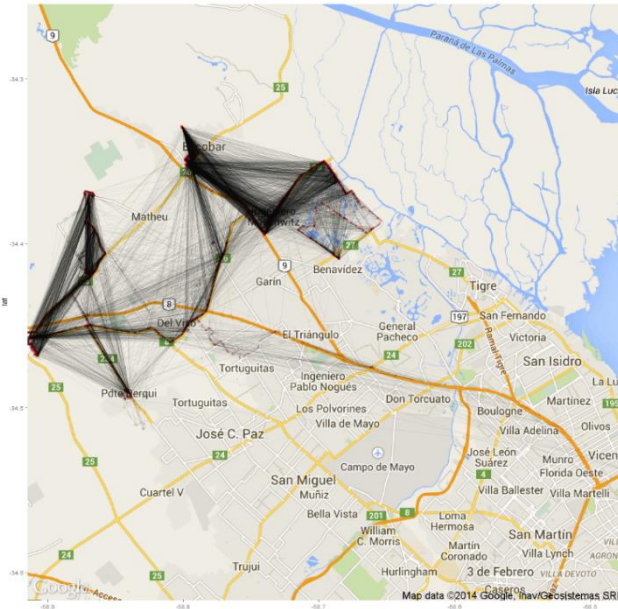
Small camera motions, with or without rolling shutter effects
(e.g., holding a static camera, walking with a slow speed)



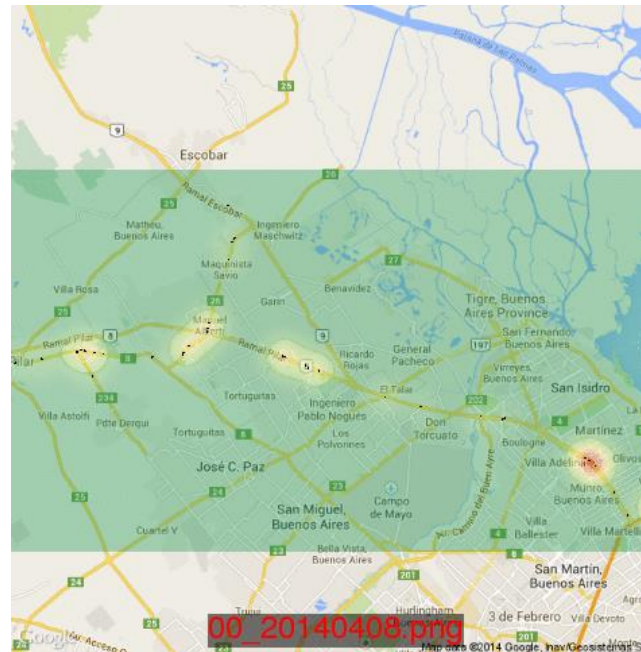
Experiencias – Casos de Uso

LA CENTRAL DE ESCOBAR

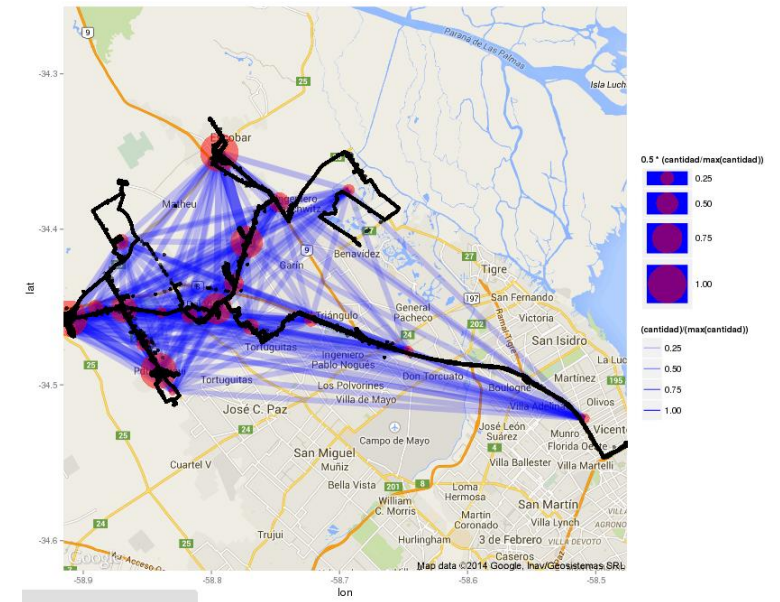
Identificación lugar de descenso



Visualización - Storytelling



Clusterización de trayectos

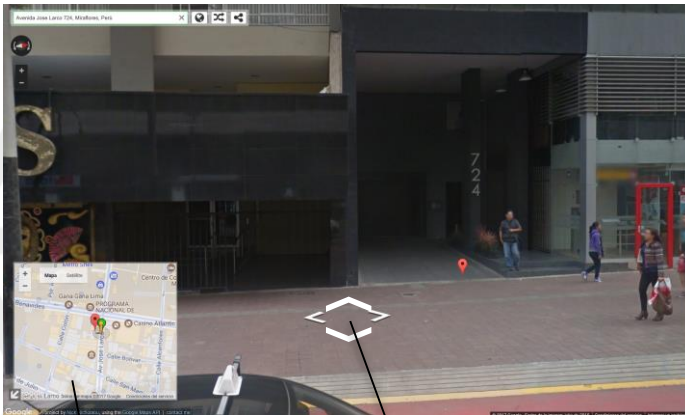


Visualizador de Locaciones con Identificación de Objetos



Avenida Jose Larco 724, Miraflores, Perú

Búsqueda por Nombre de la Celda
Contenido Georreferenciado



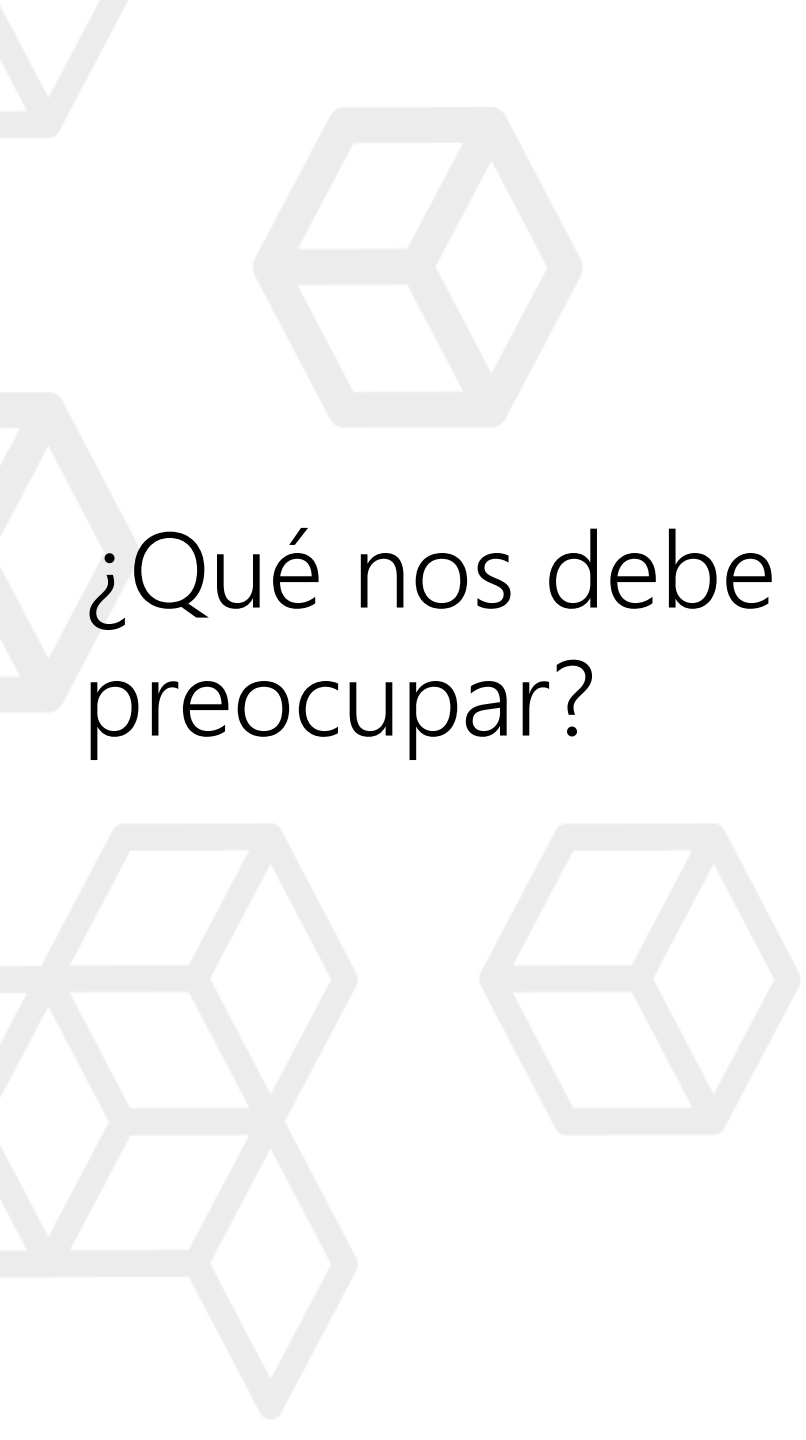
Avance NS o EO

MiniMap

Giro en 360

A long time ago in a galaxy far,
far away....





¿Qué nos debe preocupar?

Que alguien piense que porque es una máquina, es objetiva.

Que la máquina decida sobre el hombre (lo que ya pasa hoy): cuando el auto no te permita arrancar porque diga que no estás en condiciones.

La máquina ya hoy decide si te llevan al cuartito en migraciones, si te dan o no el crédito, si eres un potencial terrorista, si hay que calentar la oficina, qué contenido mostrarte...

Que la máquina "se enoje" porque miraste feo al vecino.

The background is a solid light purple color. It features a repeating pattern of faint, stylized hexagons and molecular-like structures. Some hexagons are solid outlines, while others are filled with a lighter shade. Molecular structures consist of small circles connected by lines, resembling a network or a chemical structure.

Hack AI – ML Microsoft

Septiembre 2018