

Bots or Humans? Or both?

CONFERÊNCIA INTERNACIONAL APCC
16 de maio de 2017, Centro de Congressos do Estoril



BOTS vs HUMANS

Cognitive Augmentation

Carlos Vasconcelos

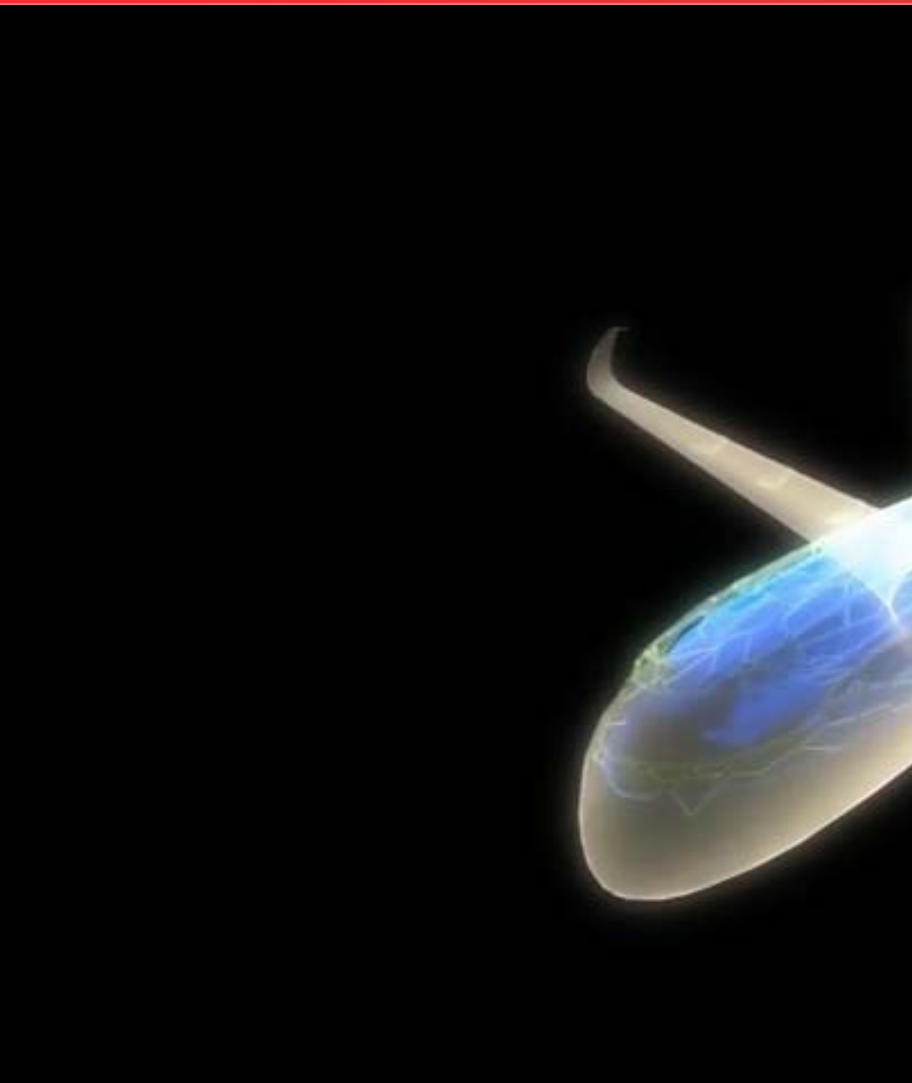


AUGMENTED AGE

Source: Maurice Conti: The incredible inventions of intuitive AI TedX

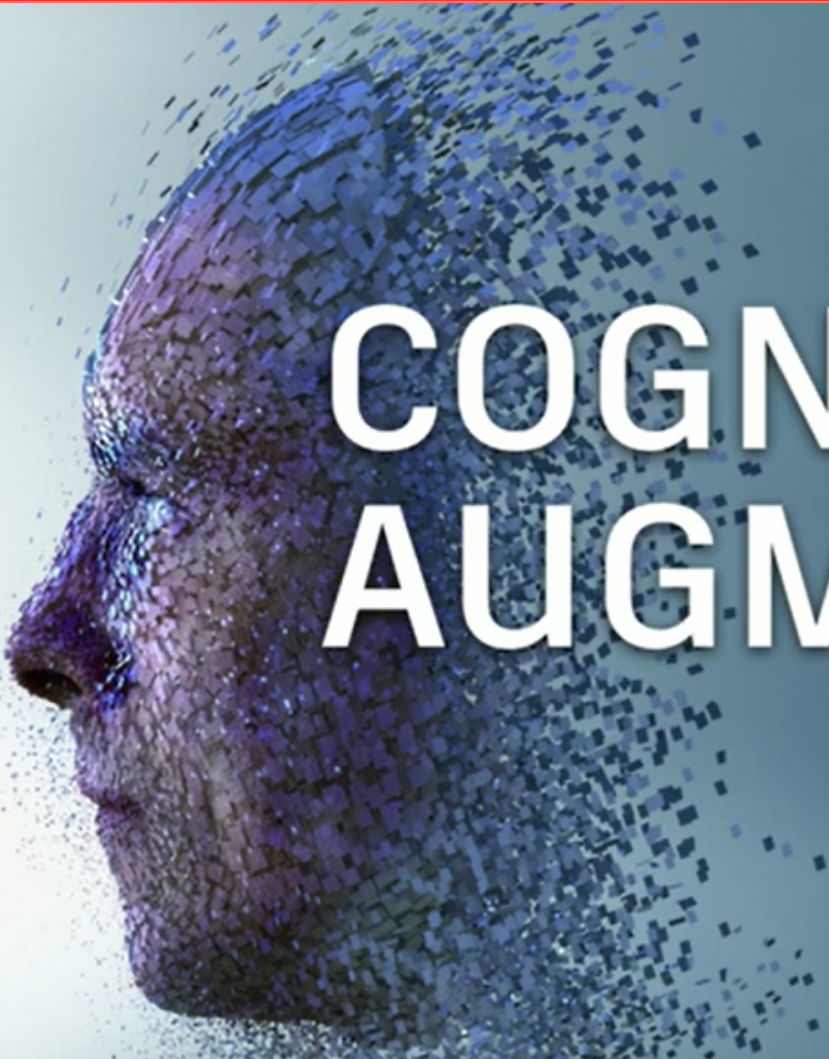


Robotic Systems that help you create





Computational Systems that help you think



COGNITIVE AUGMENTATION

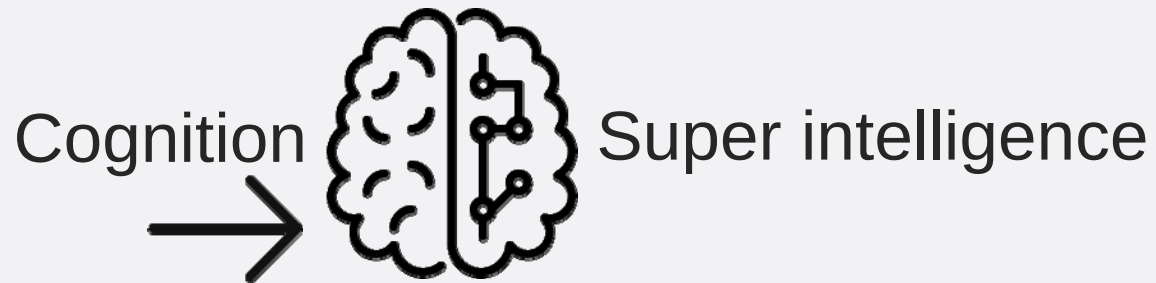


What is cognition?

Cognition is a mental process of acquiring knowledge and understanding.

It consists mainly of :

- Knowledge
- Attention
- Memory
- Computation
- Endurance
- Evaluation
- Reasoning



Who has better cognitive skills? **HUMAN** or **MACHINE**?





Artificial intelligence @ Collab



Artificial Intelligence (AI) **WHY?**



**quick and immediate
response**



**reduced
costs**



**consistent
interactions**



**Omni-channel
AI**



**These systems have
zero churn**



Cognitive Services

Vision

faces to feelings

Speech

hear and speak, filtering noise and identifying speakers and their emotions

Language

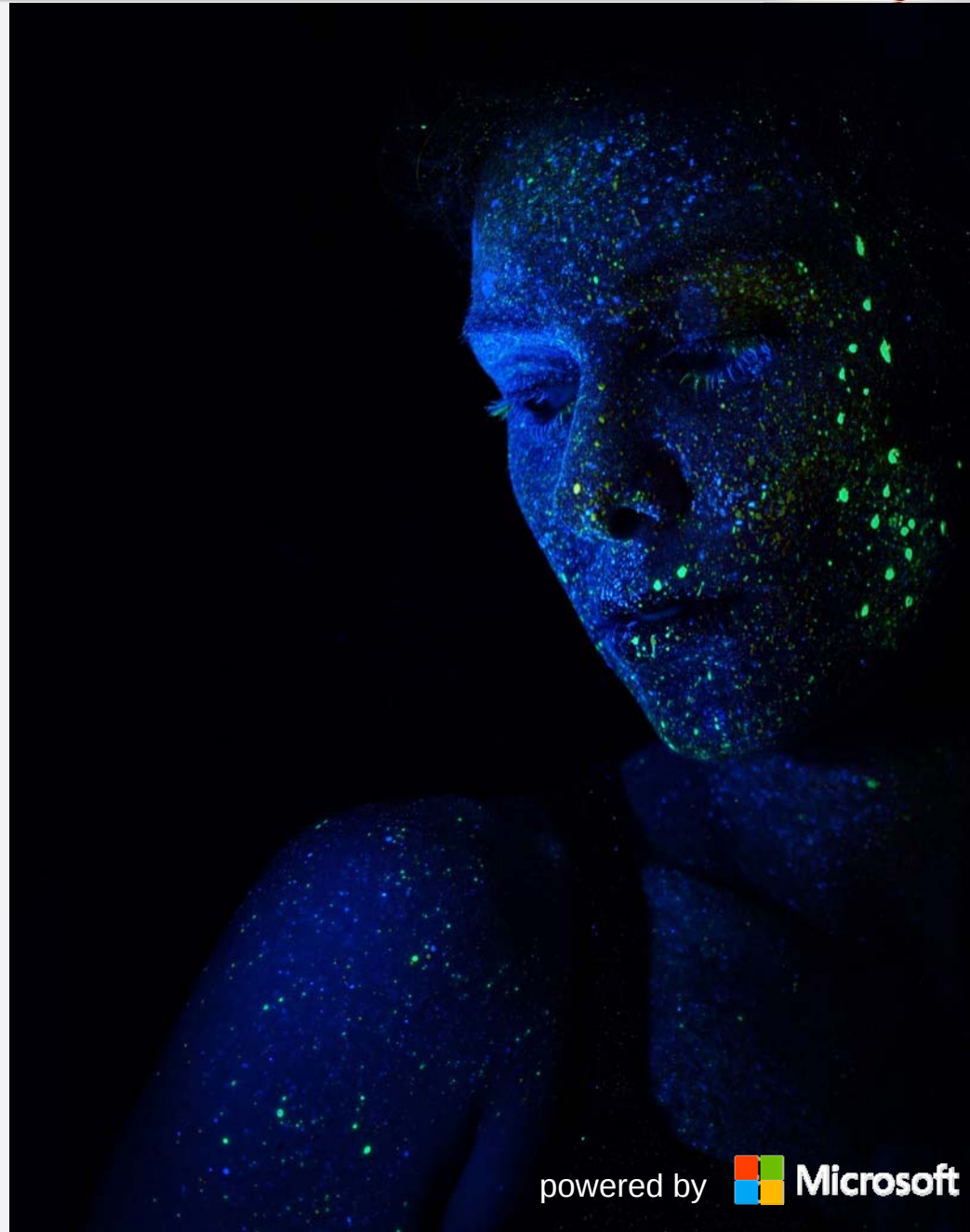
process text and learn to recognize what customers want

Knowledge

tap into knowledge gathered from the web, your FAQs and other systems

Search

access billions of web pages, images and vídeos to better train the system





Let's complicate things ...

Vision

State-of-the-art image processing algorithms help you moderate content automatically and build more personalized apps by returning smart insights about faces, images, and emotions.



Computer Vision API



Face API



Content Moderator



Emotion API PREVIEW



Video API PREVIEW

Speech

Processing spoken language in your applications



Custom Speech Service
PREVIEW



Speaker Recognition
API PREVIEW



Translator Speech API



Bing Speech API PREVIEW

Language

Allow your apps to process natural language, evaluate sentiment and topics, and learn how to recognize what users want.



Language
Understanding
Intelligent Service
PREVIEW



Web Language Model
API PREVIEW



Translator Text API



Bing Spell Check API



Text Analytics API PREVIEW



Linguistic Analysis API
PREVIEW

Knowledge

Map complex information and data in order to solve tasks such as intelligent recommendations and semantic search.



Recommendations API
PREVIEW



Knowledge Exploration
Service PREVIEW



Entity Linking
Intelligence Service API
PREVIEW



Academic Knowledge
API



QnA Maker API PREVIEW



Use case for Vision API / Sentiment Analysis

Vision

State-of-the-art image processing algorithms help you moderate content automatically and build more personalized apps by returning smart insights about faces, images, and emotions.



Computer Vision API



Face API



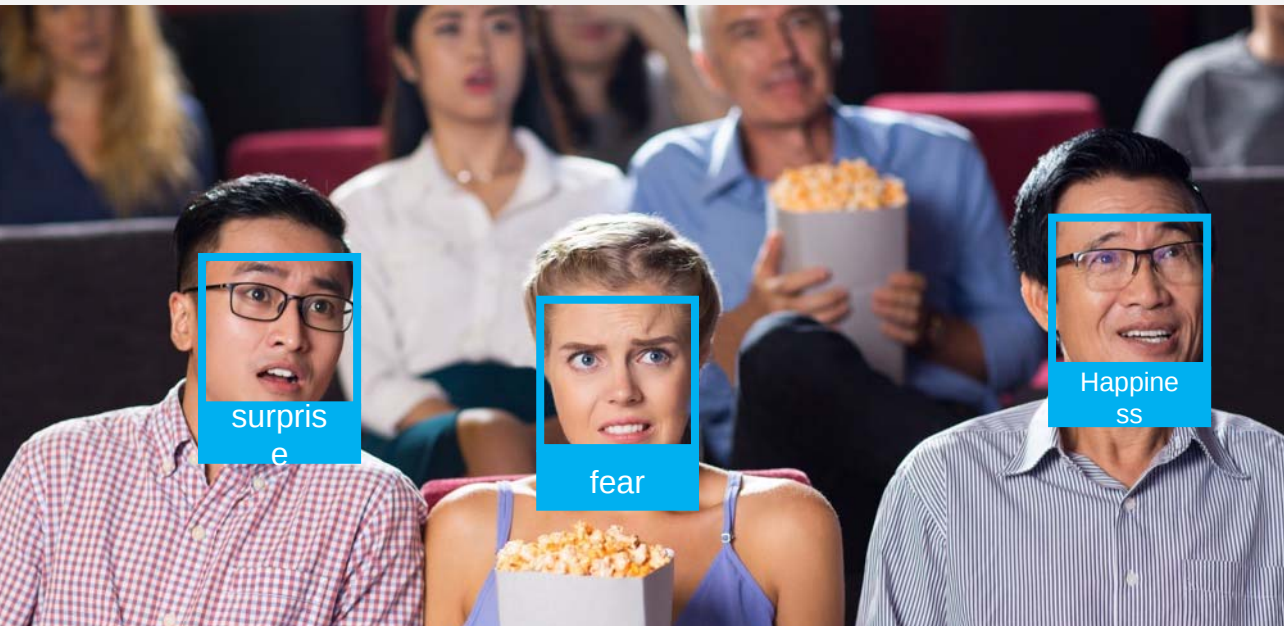
Content Moderator



Emotion API PREVIEW



Video API PREVIEW



Other examples:



Video Bots



Face detection



Video stabilization



Motion detection

Audience emotion evaluation



Use case for Speech API

Speech

Processing spoken language in your applications



Custom Speech Service
PREVIEW



Speaker Recognition
API PREVIEW

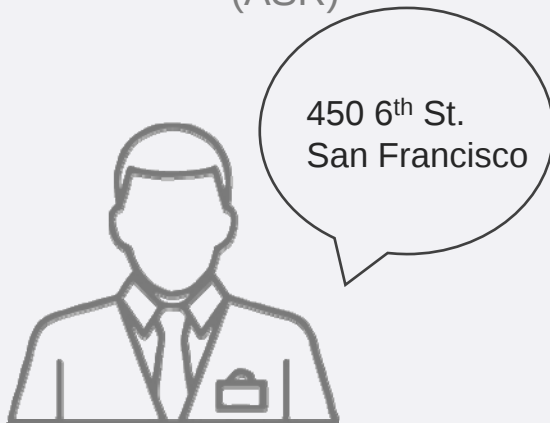


Translator Speech API

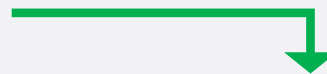


Bing Speech API PREVIEW

Speech Recognition (ASR)

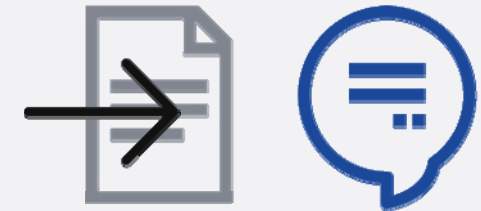


Speech Intent Recognition



"450 sixth St. in San Francisco"
~~"For 50 six St. San Francisco"~~
~~"456th St San Francisco"~~

Text To Speech Conversion (TTS)



Convert spoken
audio to text

Convert audio
to intent

Convert text
to spoken audio



Nubitalk

powered by Collab

BOTS
+
HUMANOS



1

Bom dia!

Análise de intenção: informação sobre voos
Análise de sentimento: 100% (alto)

2

Número de Voo

Bot pergunta a qualificação de dados necessária para a consulta: exemplo

3

Número de voo identificado

Bot registra a entidade (número do voo) e uma intenção adicional (nova localização pretendida)

4

Malas no escritório

Bot entrega a interação ao agente porque detecta uma intenção para a qual não tem resposta standard (pedido extraordinário)

5

Transferência para o agente

Análise de sentimento: 80% (alto)



ESCOLHA O PACOTE
QUE MAIS SE ADEQUA AO SEU NEGÓCIO

PROFESSIONAL

Solução omnicanal completa

€65

por agente concorrente
por hora faturado anualmente

STARTER

Solução integrada de CRM e Call Center

€40

por agente concorrente
por hora faturado anualmente

ADVANCED

Solução topo de gama orientada para a excelência operacional

Condições sob consulta

Nubitalk

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Artificial Intelligence (AI)

Overview

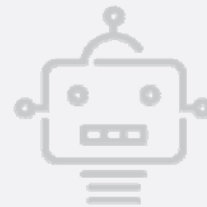
Complete AI and machine-learning suite



Predictive
Quality Monitoring



Predictive
Routing



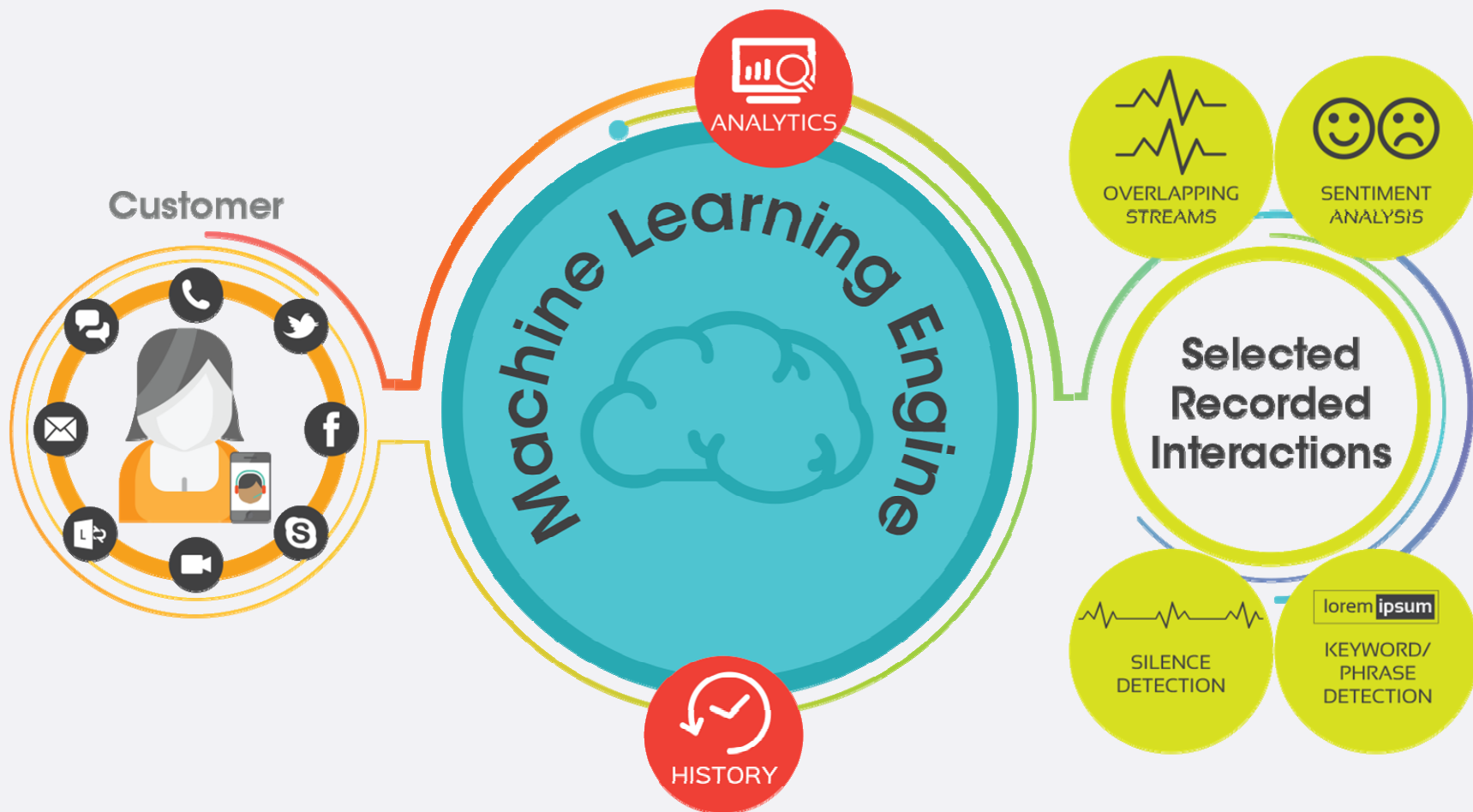
Self-learning
Bots

???
announcing
TODAY



Artificial Intelligence (AI)

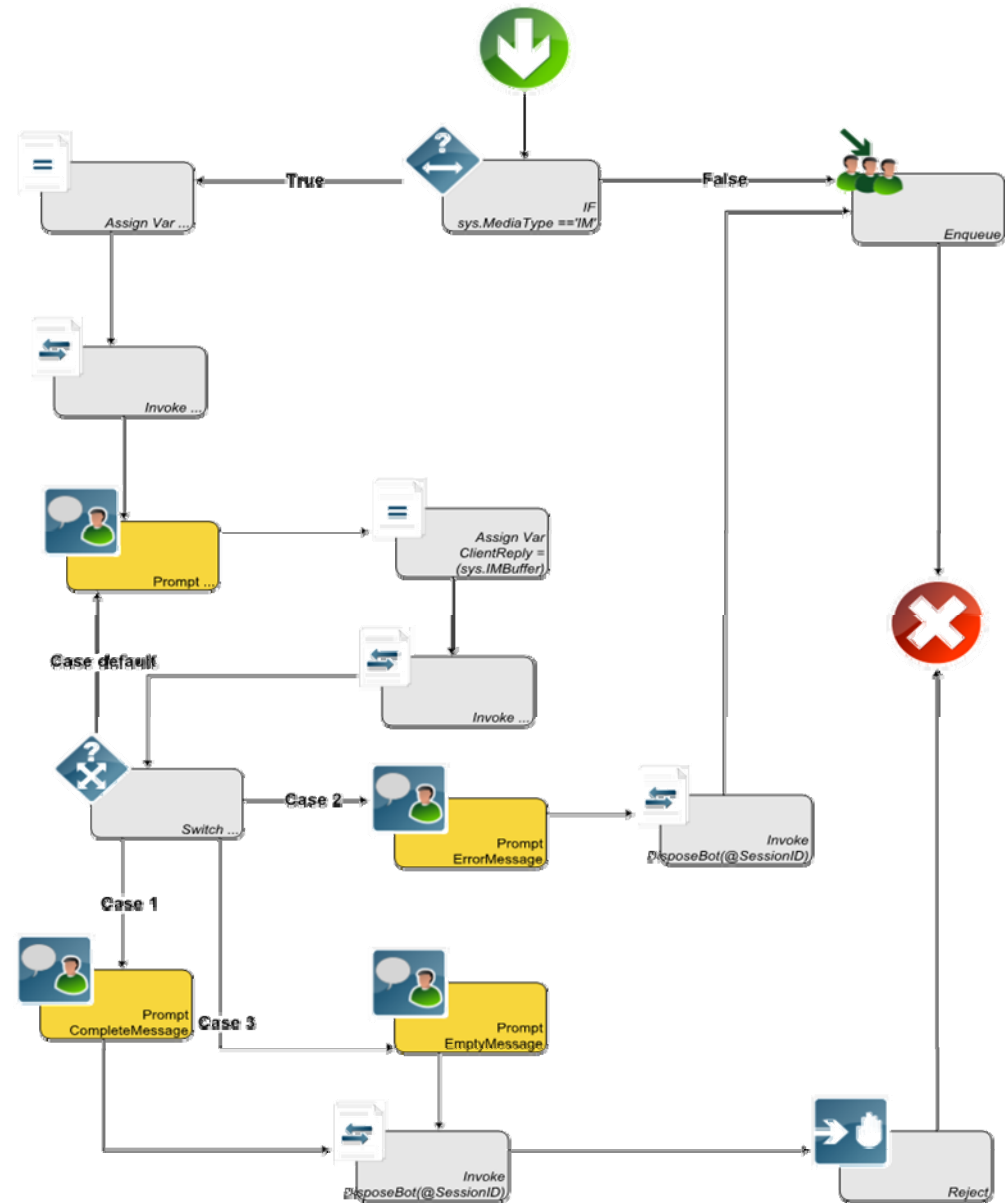
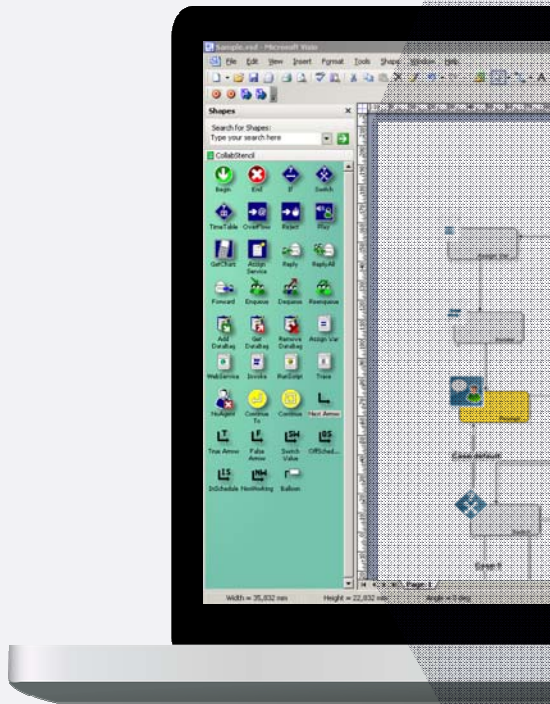
Predictive quality monitoring





Artificial Intelligence (AI)

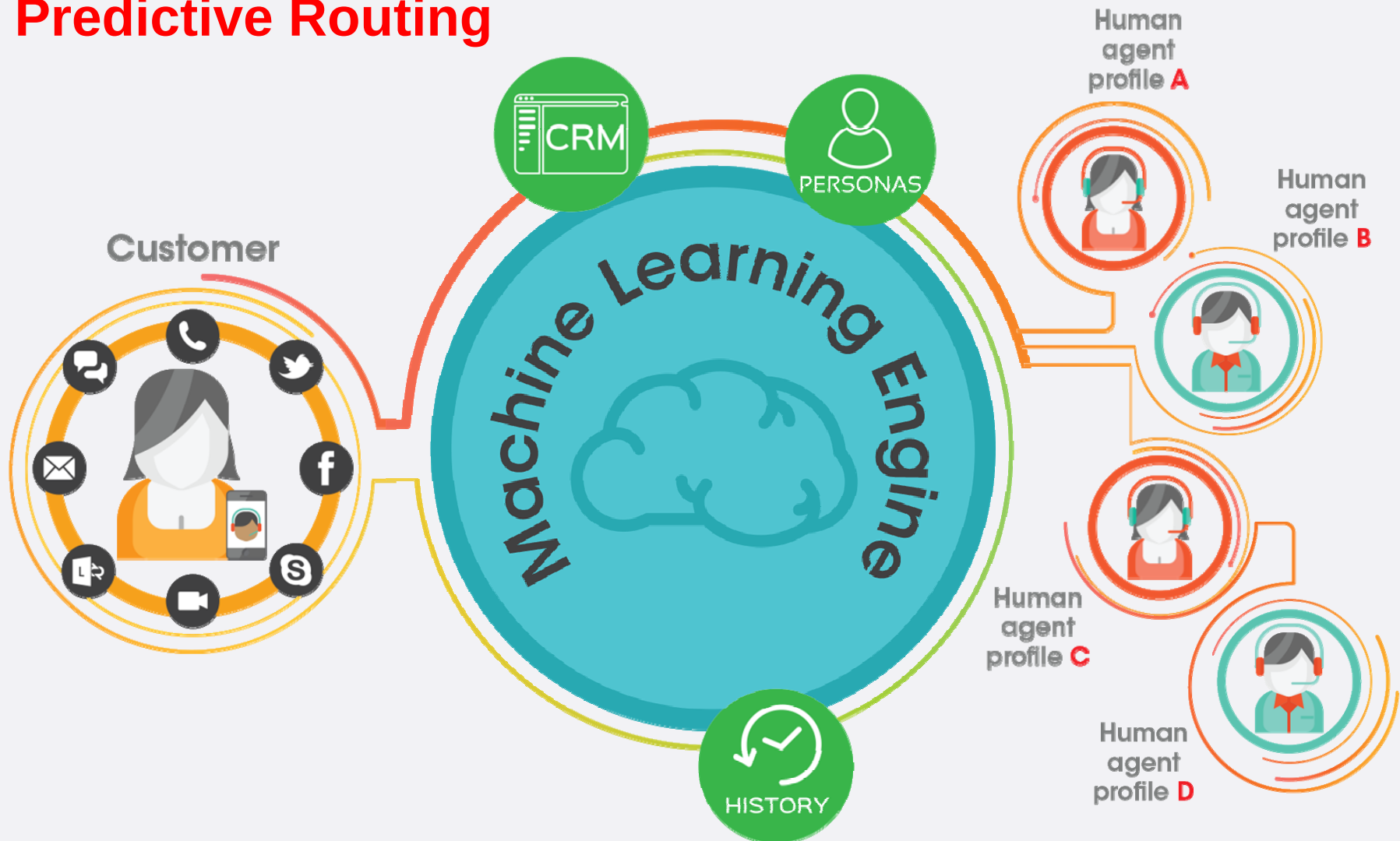
Predictive Routing





Artificial Intelligence (AI)

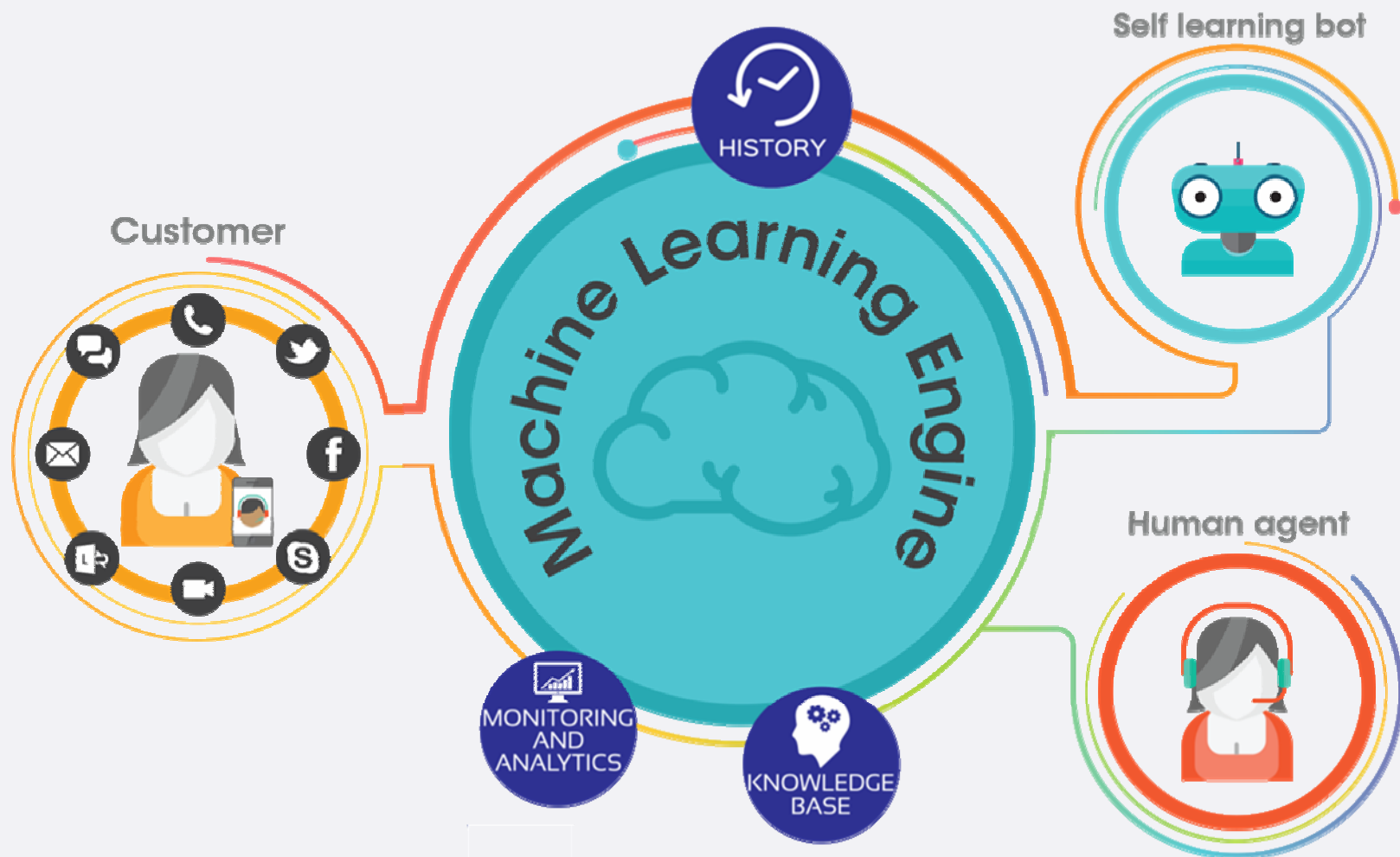
Predictive Routing





Artificial Intelligence (AI)

Self learning bots (chat and vocal)



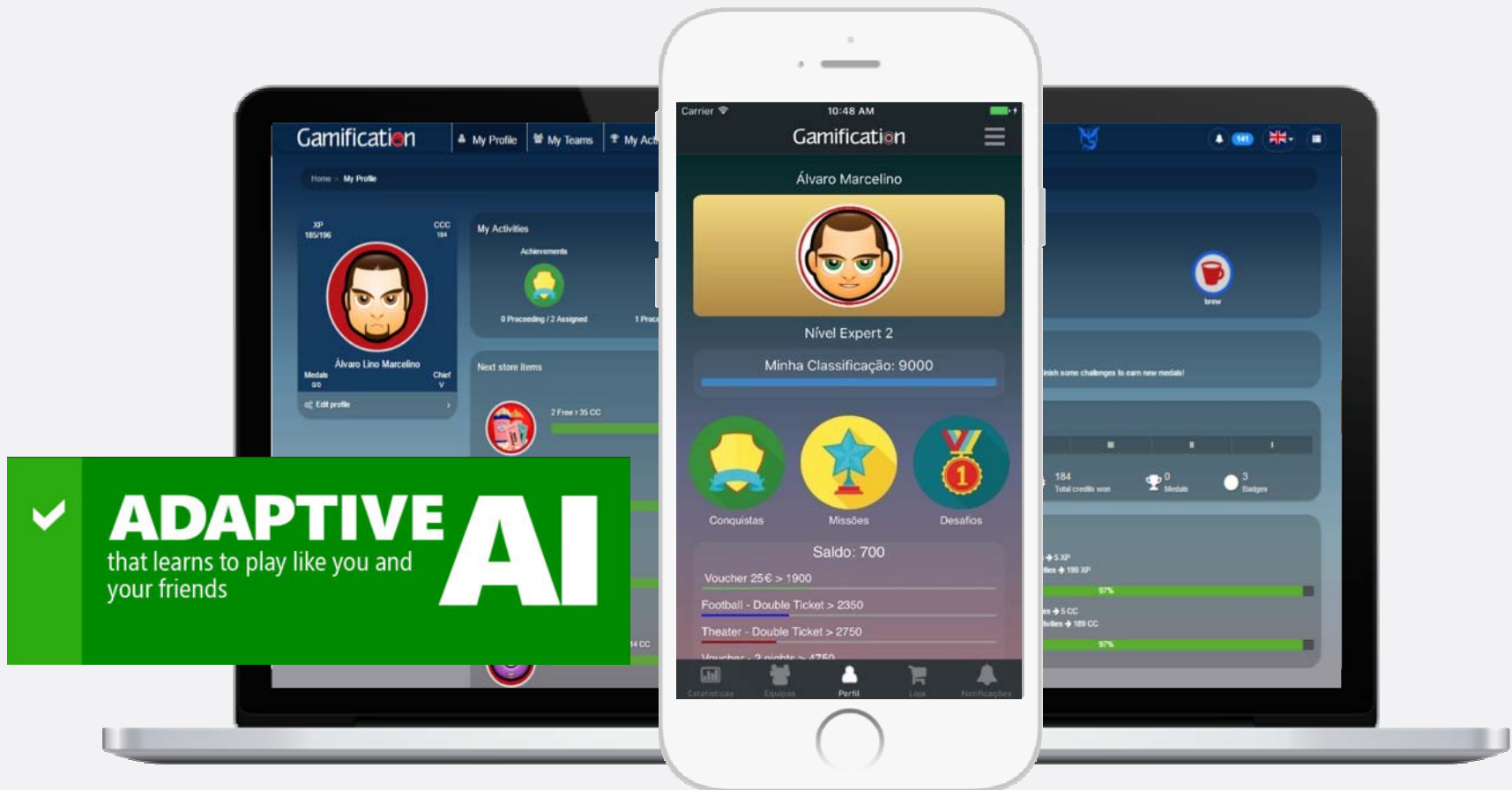


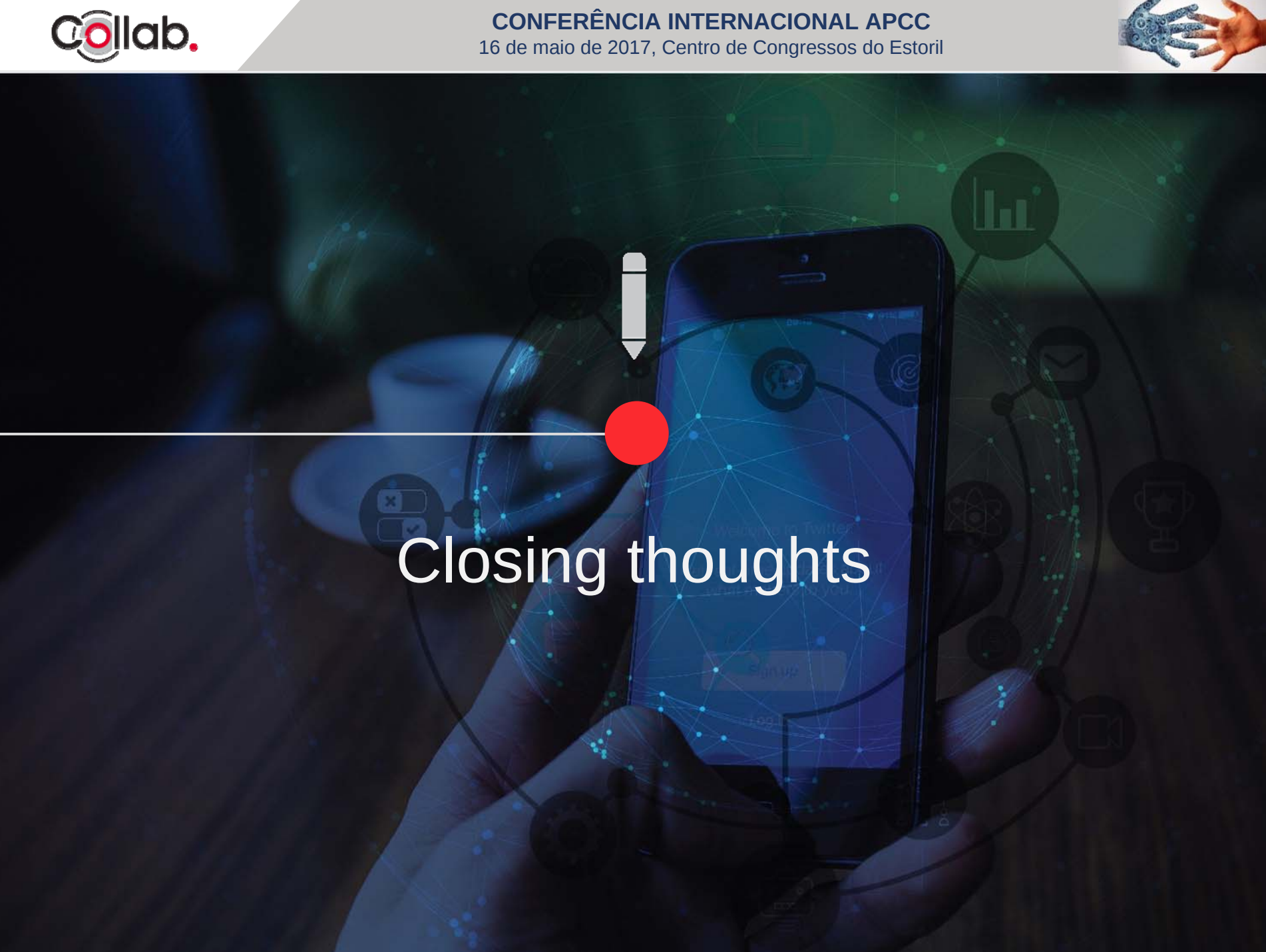
Announcing today...



Gamification

Play against ADAPTIVE AI



The background of the slide is a dark, artistic photograph of a hand holding a smartphone. The phone's screen displays the Twitter login page, with fields for 'Email or phone number' and 'Password', and buttons for 'Log in', 'Sign up', and 'Forgot your password?'. Overlaid on this image is a complex network diagram consisting of glowing blue and green nodes connected by thin lines. Various circular icons are scattered around the network, including a bar chart, a globe, a mail icon, a trophy, a camera, a gear, a checkmark, a magnifying glass, a lightbulb, and a person icon. A prominent red circle is positioned in the center of the slide, with a white vertical line passing through it. The text 'Closing thoughts' is written in a large, white, sans-serif font across the middle of the image.

Closing thoughts



Not gonna happen in our lifespan?
Think again ...



thank you.

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