

**Don't Underestimate the Future of Artificial Intelligence**





The BANKW Staffing family of companies are all locally owned, full-service staffing and recruiting agencies that help employers find custom solutions to their employment needs and match job seekers with positions that meet their individual career goals and qualifications.



Today's businesses rely on technology to keep them running smoothly and gain a competitive advantage. Alexander Technology Group connects IT professionals with forward-thinking companies.



It all comes down to the bottom line. KBW matches financial and accounting professionals with companies who need their expertise to achieve their business goals.



Human Resources, Legal, and Administrative personnel are the backbone of an organization. The Nagler Group specializes in pairing them with companies in need of their essential skills.



Sales Search Partners matches sales professionals with employers who want to close more deals and take their business to the next level.



KNF&T Staffing Resources provides established corporations, incubator start-ups, financial services, and higher education institutions with the professional talent needed to fill gaps and achieve goals. We can provide solutions for core needs ranging from Administrative, HR and Program Management to Medical Assistants, Analysts and Accounting/Finance roles. We will find the right fit for your team.

# Dave Todaro

---

[linkedin.com/in/dtodaro](https://www.linkedin.com/in/dtodaro)

Founder & CEO  
**Ascendle**



# We are a world-class software delivery firm.



## Web Development

**Web Applications • Angular • React**

We build contemporary web applications that delight users, including a modern user interface and responsive design.



## App Development

**Mobile • Watch • Desktop • TV • Xamarin**

Whether it's Android, iOS, watchOS, tvOS, or the desktop, our applications can reach your users wherever they are—with a rich, platform-specific experience.



## Platform Development

**APIs • Data • Microservices • AI**

By leveraging the latest cloud computing, business analytics, microservice, and artificial intelligence technology, we ensure the highest levels of performance, security, and scalability.



## Product Strategy

**Technology Strategy • MVP Feature Prioritization**

We dive deep to understand your company's business drivers, customer needs, and your vision to ensure your product excels, and help form the plan for your minimum viable product (MVP).



## Product Design

**UI/UX • Visual Design • User Testing**

UX architecture ensures the right structure to deliver on user expectations, while UI and visual design make your product beautiful.



## Agile Training & Coaching

**Team Assessments • Scrum Training • DevOps**

We teach your teams our agile project management and software engineering secrets perfected over 3+ decades of award-winning product delivery.



Our clients are market leaders and innovative pioneers.

**Honeywell**

**MONSTER**

**amadeus**

 **tmpworldwide**  
THE DIGITAL BRAND AUTHORITY

  
**PerkinElmer**

  
**wex**

  
**FLORATINE**

 **Connecting Point**  
MARKETING GROUP

  
**LIMRA**

 **TRADEPORT**  
RETURNS, MANAGED.

  
**SENSITECH**  
United Technologies  
SUPPLY CHAIN VISIBILITY

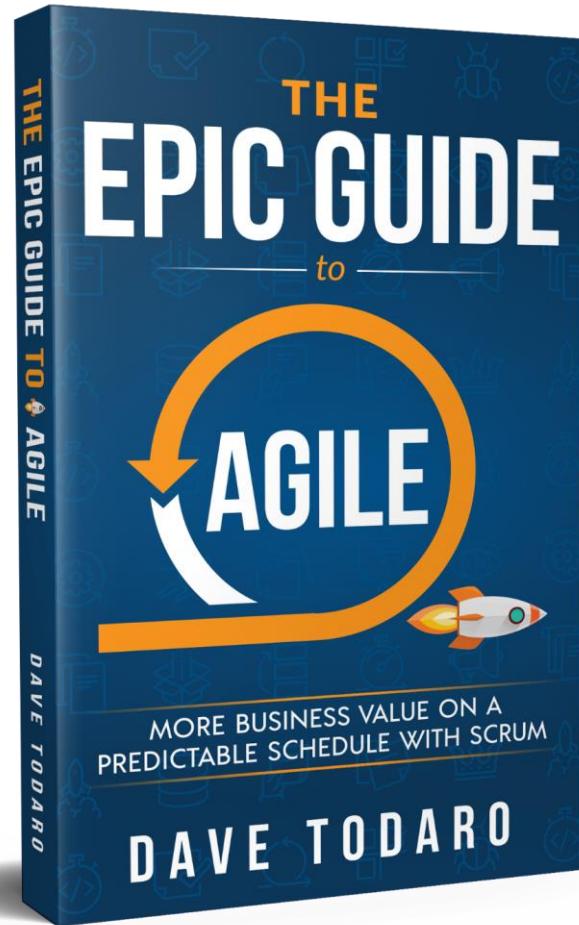
 **EPILEPSY**  
FOUNDATION  
New England

**CREATIVE**  **INFO**  
SYSTEMS

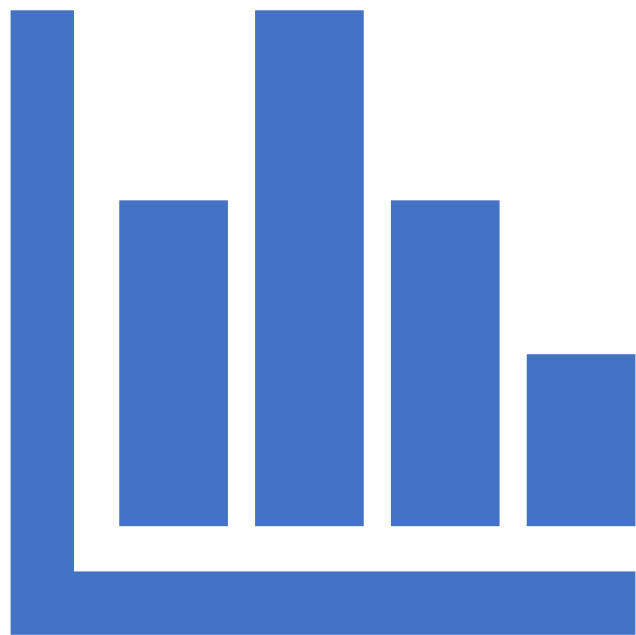
**handplan**

**Pxl**

 **ASCENDLE**



And we  
wrote the  
book.



# Poll Results





“Artificial intelligence...[is] a system’s ability to correctly interpret external data, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation.”

---

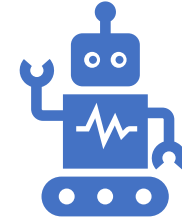
Andreas Kaplan & Michael Haenlein

FUZZY

# Questions



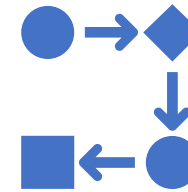
What's AI vs just a fancy algorithm?



What AI services are available?

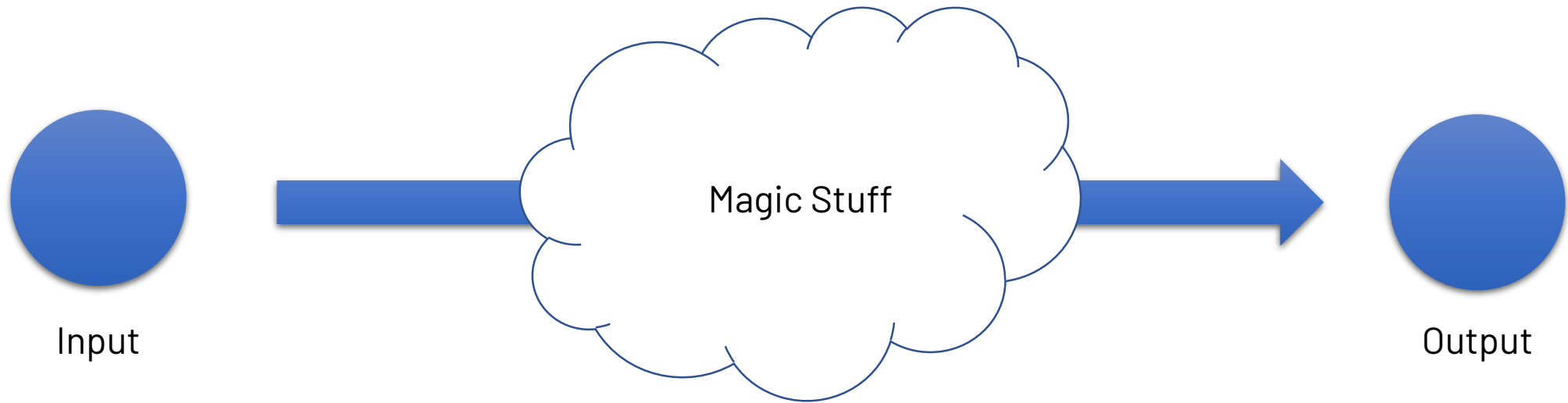


How do I know which services to use?



How to come up to speed?

# AI vs a Clever Algorithm



Human-programmed decisions for predicted situations (Algorithm)  
Computer can make decisions based on future, unknown situations (AI)

# Algorithm

How can I help you? You can type "Order Status" or "Return Items"

Where's my refund?

I'm sorry. I don't understand. Please type "Order Status" or "Return Items"

I don't want that. I want to know when I'll get my money back.

I'm sorry. I don't understand. Please type "Order Status" or "Return Items"

# AI

How can I help you today?

Where's my refund?

Let me look that up for you.

We are currently processing your refund. It should be credited to your Visa card in the next two days.

Thanks!



# Machine Learning

01

## Train

Feed the AI real-word data

02

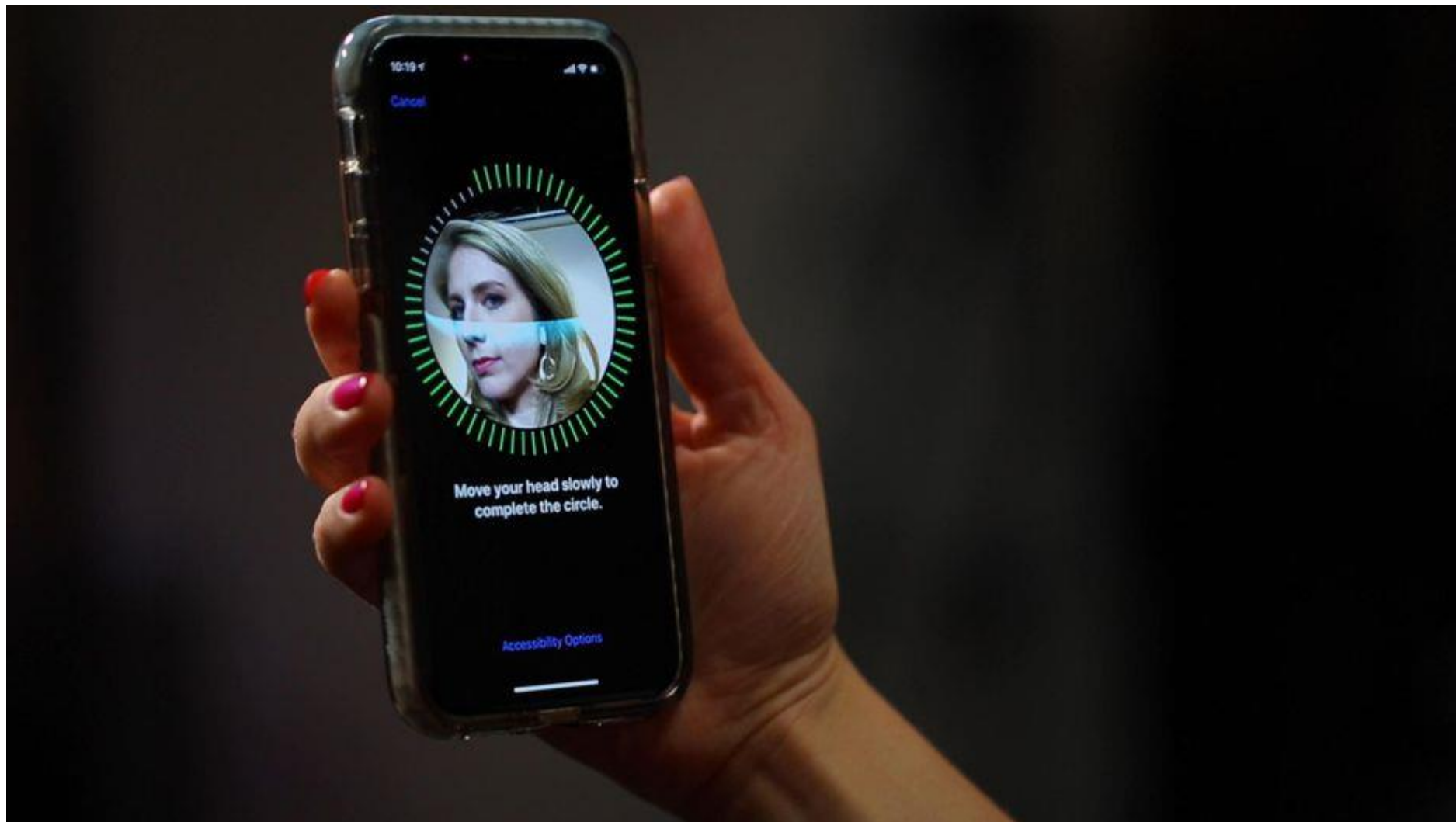
## Create Model

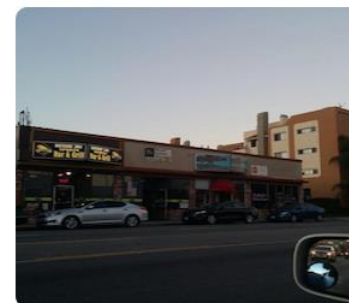
Built by the machine learning technology

03

## Execute

Processing based on the model, which improves over time





food

drink

inside

outside

menu

# NETFLIX





## FRAUD PROTECTION SERVICES

! If you've already responded, you can ignore this notice.

**Chase Sapphire ®**

**Account Ending: 5903**

David M Todaro,

Please tell us if you, or someone you authorized, used your Chase card for:

**05/28**

EB \*HOW TO FILL THE PI  
\$99.00  
Declined

**Do you recognize this charge?**

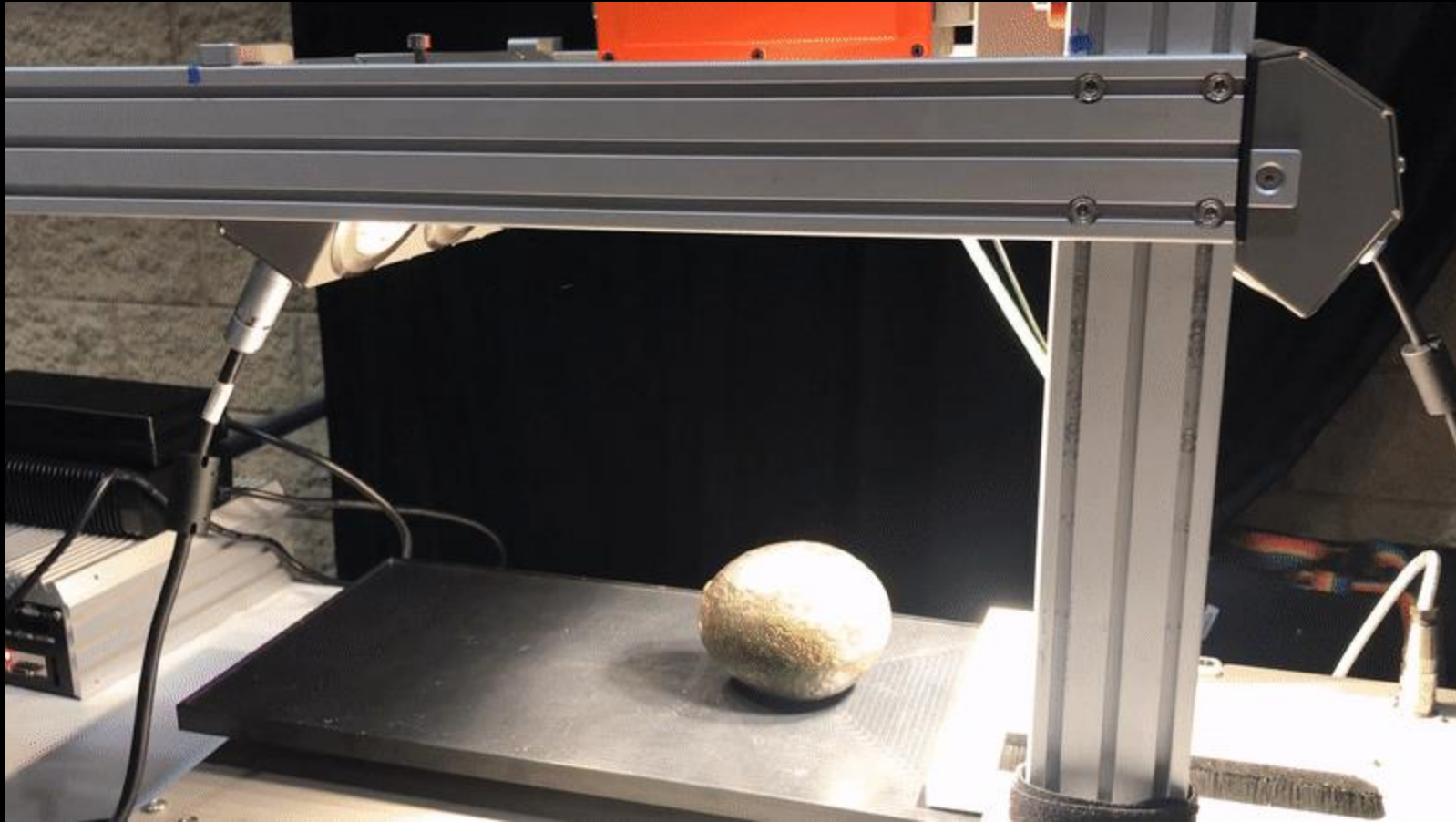
**YES**

- Your card remains active.  
- If a purchase was declined, you will not be charged unless you try again.

**NO**

- We'll block your card and call you.  
- If you need to speak with us, call the number on the back of your card.

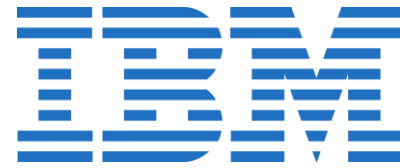




# Good News

- You don't have to build fundamental AI capabilities yourself
- You can leverage the work of major cloud vendors





# AI is Here

- Billions of dollars invested
- Pre-built AI services are available now



## Amazon SageMaker - Build, train, and deploy machine learning models fast

Amazon SageMaker is a fully managed service that provides every developer and data scientist with the ability to build, train, and deploy ML models at scale. It removes the complexity from each step of the ML workflow so you can more easily deploy your ML use cases, anything from predictive maintenance to computer vision to predicting customer behaviors.



### Amazon SageMaker Studio

SageMaker Studio is the first fully integrated development environment for machine learning, to build, train, and deploy ML models at scale



### Amazon SageMaker Autopilot

SageMaker Autopilot is the industry's first automated machine learning capability that gives you complete visibility into your ML models



### Amazon SageMaker Ground Truth

SageMaker Ground Truth provides pre-built workflows and interfaces to build and manage highly accurate training datasets quickly



### Amazon SageMaker Neo

SageMaker Neo enables developers to train machine learning models once and run them anywhere in the cloud and at the edge





### Advanced text analytics

Use natural language processing to extract insights and relationships from unstructured text

[Amazon Comprehend »](#)



### Automated code reviews

Automate code reviews and identify your most expensive lines of code

[Amazon CodeGuru »](#)



### Chatbots

Easily build conversational agents to improve customer service and increase contact center efficiency

[Amazon Lex »](#)



### Demand forecasting

Build accurate forecasting models based on the same machine learning forecasting technology used by Amazon.com

[Amazon Forecast »](#)



### Document analysis

Automatically extract text and data from millions of documents in just hours, reducing manual efforts

[Amazon Textract »](#)



### Enterprise search

Add natural language search capabilities to your apps so users can find the information they need more easily

[Amazon Kendra »](#)



### Fraud prevention

Identify potentially fraudulent online activities based on the same technology used at Amazon.com

[Amazon Fraud Detector »](#)



### Image and video analysis

Add image and video analysis to your applications to catalog assets, automate media workflows, and extract meaning

[Amazon Rekognition »](#)



### Personalized recommendations

Personalize experiences for your customers using machine learning technology perfected from years of use on Amazon.com

[Amazon Personalize »](#)



### Real-time translation

Expand your reach through efficient and cost-effective translation to reach audiences in multiple languages

[Amazon Translate »](#)



### Text to speech

Turn text into life-like speech to give voice to your applications

[Amazon Polly »](#)



### Transcription

Easily add high-quality speech-to-text capabilities to your applications and workflows

[Amazon Transcribe »](#)



## Machine learning

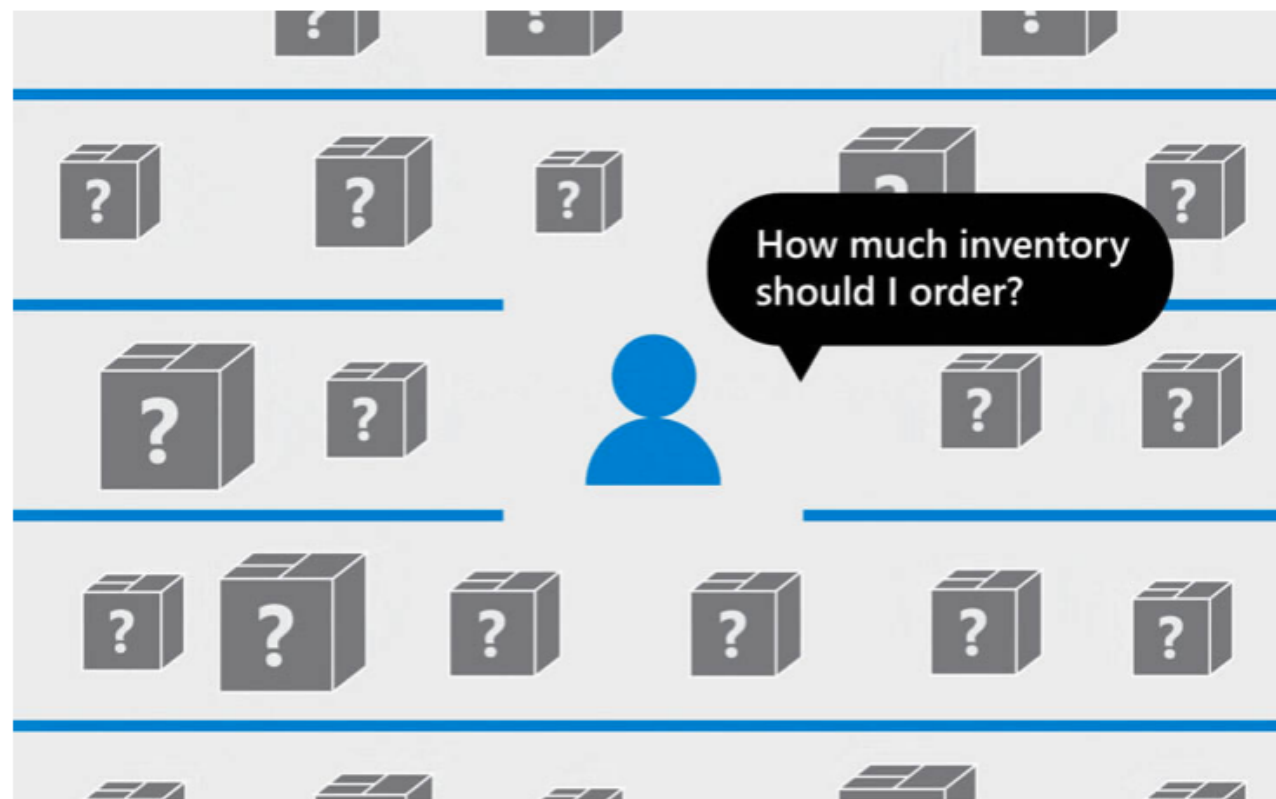
Only Azure empowers you with the most advanced machine learning capabilities. Quickly and easily build, train, and deploy your machine learning models using Azure Machine Learning, Azure Databricks and ONNX. Use tools and frameworks of your choice without lock-in. Develop models faster using automated machine learning. Easily deploy at scale with [Kubernetes on Azure](#). Manage your ML models across the cloud and the edge.

### Azure Machine Learning

A Python-based machine learning service with automated machine learning and edge deployment capabilities.

### ONNX

An open source model format and runtime for machine learning which enables you to easily move between the frameworks and hardware platforms of your choice.



## Knowledge mining

Uncover latent insights from all your content—documents, images, and media – with Azure Cognitive Search. Using the only cloud search service with built-in AI capabilities, discover patterns and relationships in your content, understand sentiment, extract key phrases and more.

### Azure Cognitive Search

Only search service with industry leading AI capabilities to easily extract insights from all your content.



-  Language
-  Face detection
-  Organization entity extraction
-  Location entity extraction
-  Key phrase extraction



## AI apps and agents

Deliver breakthrough experiences in your apps with Cognitive Services and Bot Service. Access industry leading AI models that are being used today by millions in products such as Office 365, Xbox and Bing. Customize these models with your own data and deploy anywhere. Only Azure provides you with access to these battle-tested capabilities.

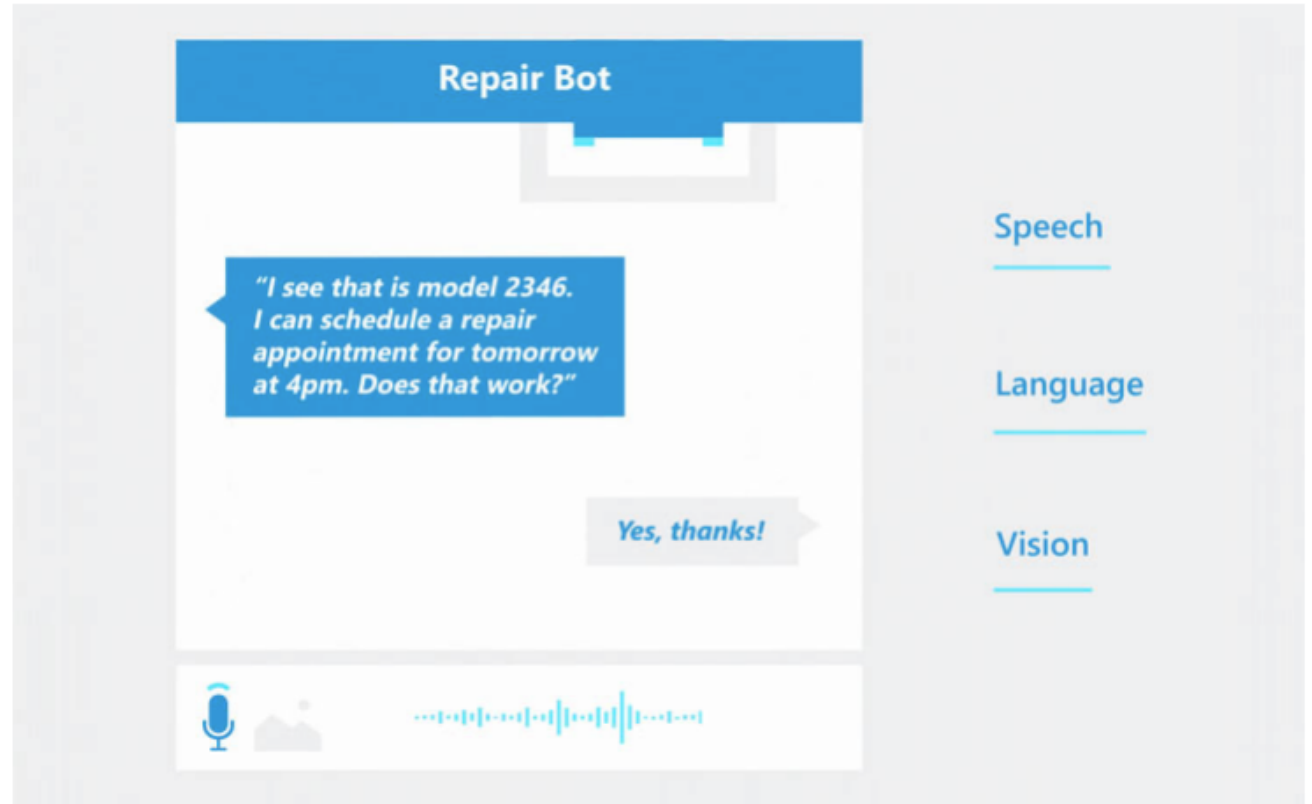
### Cognitive Services

A collection of domain specific pre-trained AI models that can be customized with your data.

[Vision](#) > [Speech](#) > [Language](#) > [Decision](#) >

### Bot Service

A purpose-built bot development environment with out-of-the-box templates to get started quickly.



Make smarter decisions faster

### Anomaly Detector PREVIEW

Identify potential problems early on.

### Content Moderator

Detect potentially offensive or unwanted content.

### Personalizer

Create rich, personalized experiences for every user.

Extract meaning from unstructured text

### Immersive Reader

Help readers of all abilities comprehend text using audio and visual cues.

### Language Understanding

Build natural language understanding into apps, bots, and IoT devices.

### QnA Maker

Create a conversational question and answer layer over your data.

### Text Analytics

Detect sentiment, key phrases, and named entities.

### Translator

Detect and translate more than 60 supported languages.

## Integrate speech processing into apps and services

### Speech to Text

Transcribe audible speech into readable, searchable text.

### Text to Speech

Convert text to lifelike speech for more natural interfaces.

### Speech Translation

Integrate real-time speech translation into your apps.

### Speaker Recognition PREVIEW

Identify and verify the people speaking based on audio.

## Identify and analyze content within images, videos, and digital ink

### Computer Vision

Analyze content in images.

### Custom Vision

Customize image recognition to fit your business needs.

### Face

Detect and identify people and emotions in images.

### Form Recognizer

Extract text, key-value pairs, and tables from documents.

### Ink Recognizer PREVIEW

Recognize digital ink and handwriting, and pinpoint common shapes.

### Video Indexer

Analyze the visual and audio channels of a video, and index its content.

Find what you're looking for from the world-wide-web

#### Bing Autosuggest

Help users complete queries faster by adding intelligent type-ahead capabilities.

#### Bing Custom Search

Create a custom search engine with ad-free results.

#### Bing Entity Search

Recognize and classify named entities, and find search results based on them.

#### Bing Image Search

Add a variety of search image options to your app.

#### Bing News Search

Turn any app into a news search resource.

#### Bing Spell Check

Help users identify and fix word breaks, slang, names, homonyms, and brands.

#### Bing Video Search

Add advanced video search features to your app.

#### Bing Visual Search

Enable users to search using images.

#### Bing Web Search

Enable safe, ad-free, location-aware search for your users, surfacing relevant information from [web results](#), [images](#), [news](#), [videos](#), and [visuals](#).

# How to Get Started



**Shop** available AI services on your cloud platform



**Evaluate** them against business opportunities



**Experiment** with target services



**Build** a small minimum viable product (MVP)



**Test** customer reaction

# References

## Azure

### **Azure AI Platform**

<https://azure.microsoft.com/en-us/overview/ai-platform/>

### **Azure Bot Samples**

<https://github.com/Microsoft/BotBuilder-Samples>

### **Azure Free AI Learning Account**

<https://azure.microsoft.com/en-us/free/ai/>

## AWS

### **AWS Machine Learning**

<https://aws.amazon.com/machine-learning/>

### **AWS AI Services**

<https://aws.amazon.com/machine-learning/ai-services/>

### **AWS Machine Learning Training**

<https://aws.amazon.com/training/learning-paths/machine-learning/>



# Questions?

**Dave Todaro**

[linkedin.com/in/dtodaro](https://www.linkedin.com/in/dtodaro)

[dave@ascendle.com](mailto:dave@ascendle.com)

**[ascendle.com](https://ascendle.com)**

