



Start experimenting with new technologies and
boost your knowledge

HBO-I, October 4, Utrecht

Kamini Aisola
General Manager AWS Benelux

Amazon ?



- 1994 ○ Founded
- 1995 ○ Amazon.com
- 1998 ○ Added CDs & DVDs
- 2006 ○ Amazon Web Services
- 2007 ○ Kindle/Prime
- 2011 ○ Video
- 2012 ○ Groceries
- 2014 ○ Alexa/Echo
- 2015 ○ Bookstores
- 2017 ○ Go



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HyperSpeed

Near infinite resources available in minutes



63PB

EBS Storage

7.1T

DynamoDB Requests

45.5M

Peak DynamoDB Requests/Sec

609TB

Aurora Database Size

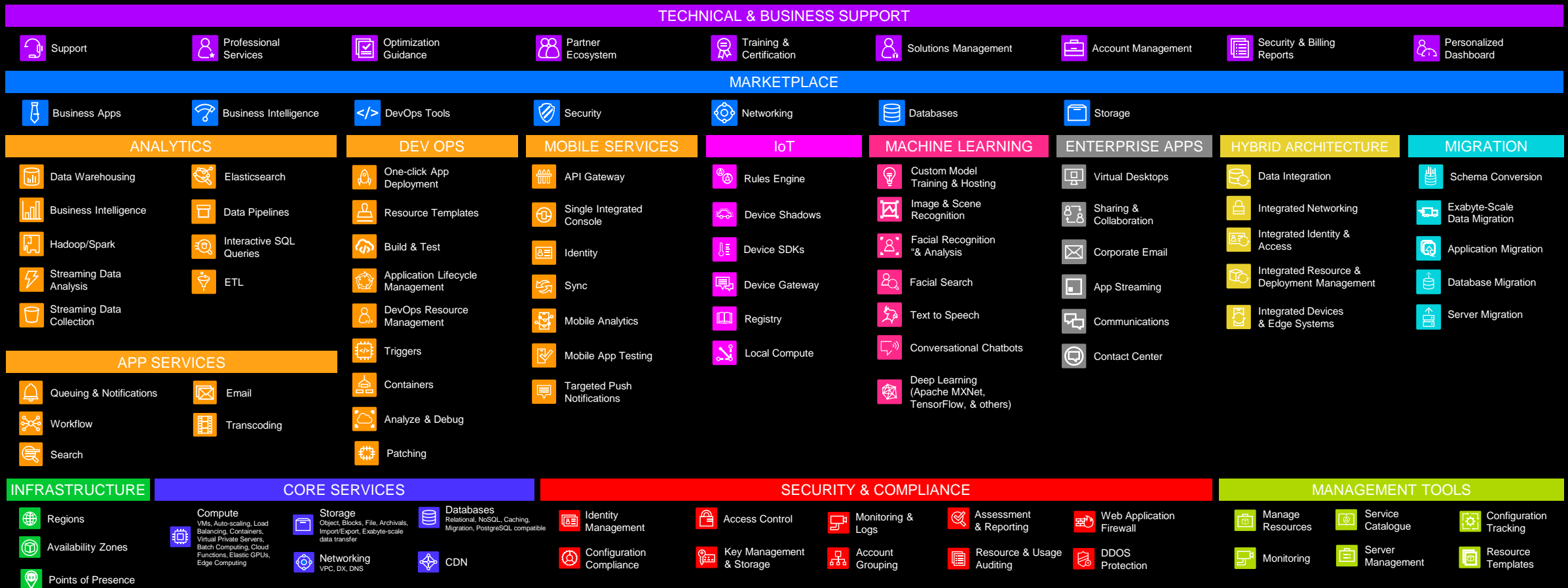
148B

Aurora Transactions

372K-426K

EC2 Instances

Most robust, fully featured technology infrastructure platform



Innovation has Manifested Across Many Domains...



Drone Development



Video Streaming



Kindle Reader



Home
Entertainment



Grocery Delivery



Advanced Shopping



Home Automation



Cloud Computing

Tens of thousands of active AWS customers in Benelux



If I asked you...

"How important is it to invest in Machine Learning and AI?"

What we often hear:

"We're not a Machine Learning company."

"They're not central to our business."

"We have more important topics to address."

Now, if I asked you...

"How important is it to build better products and deliver a better customer experience?"

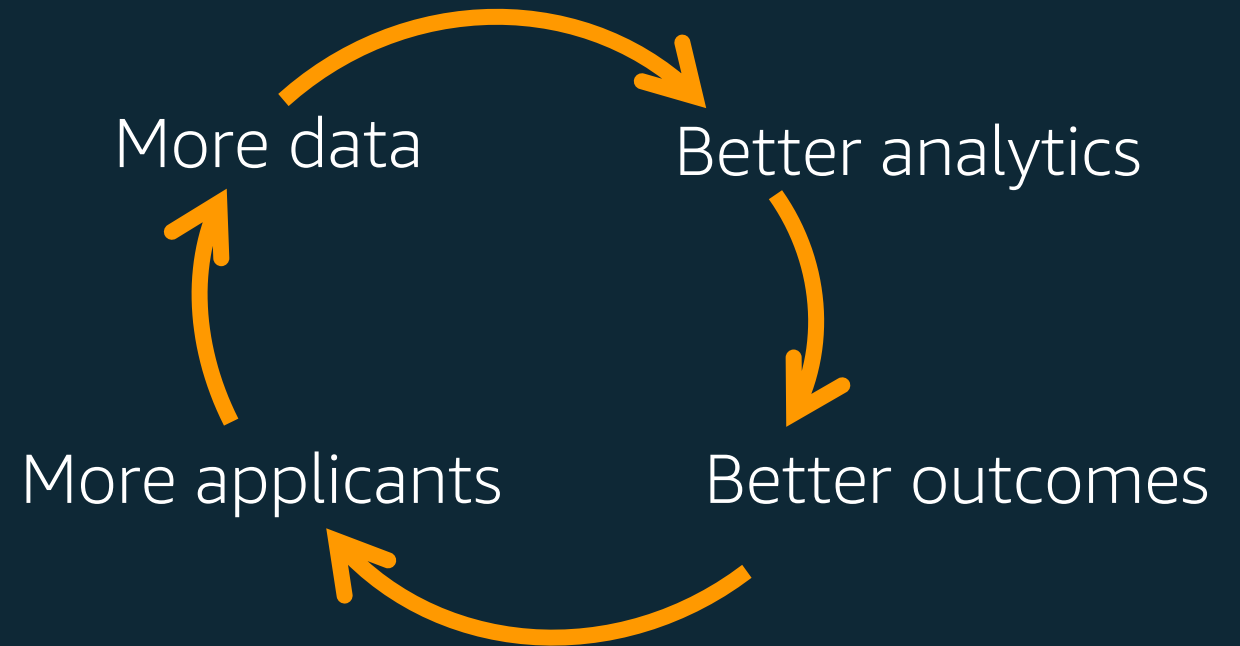
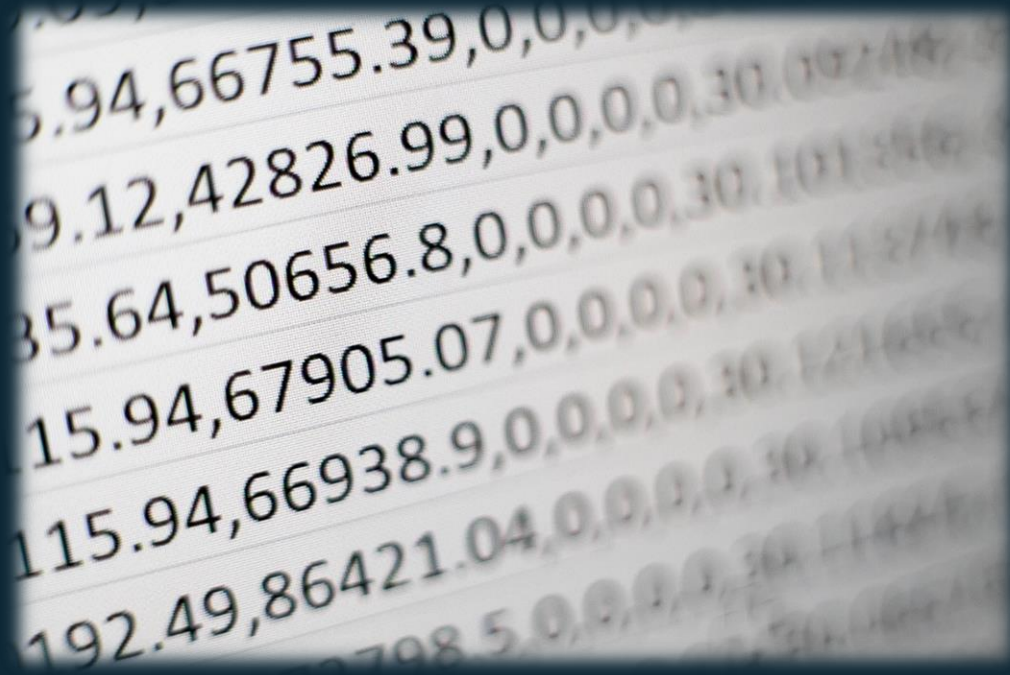
We always hear:

"This is our number one priority."

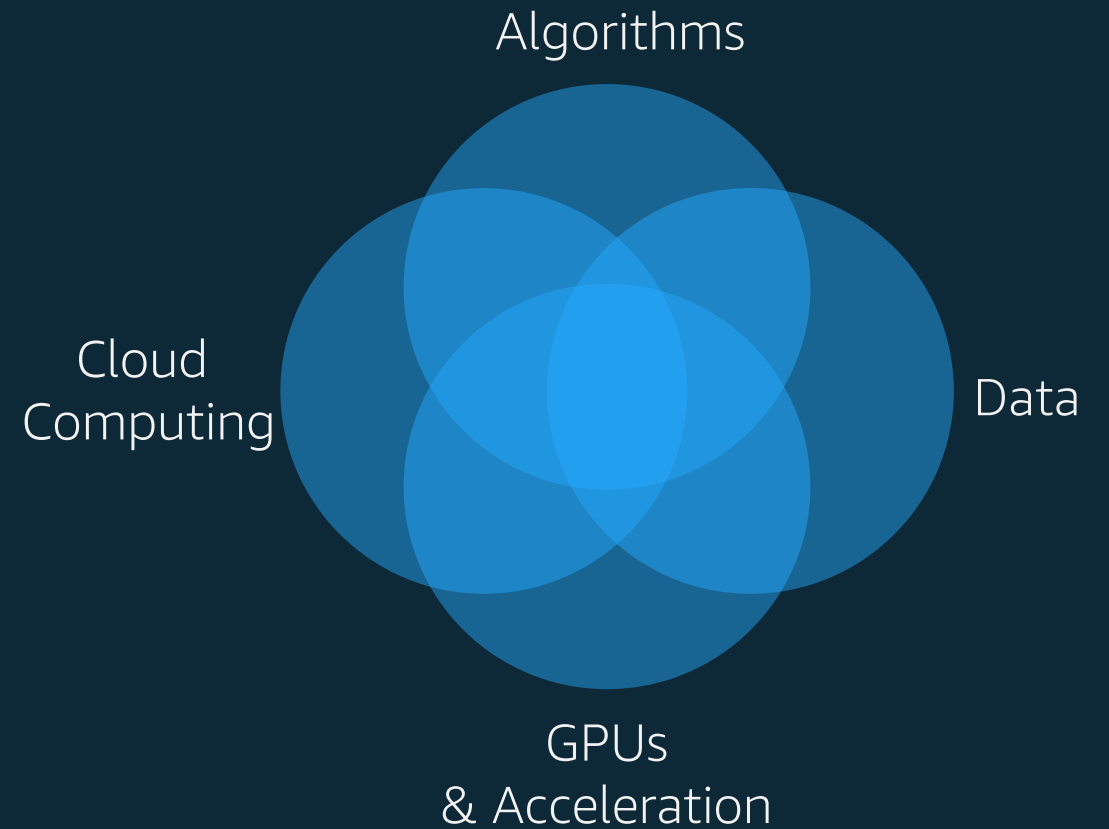
But isn't this the same question, really?

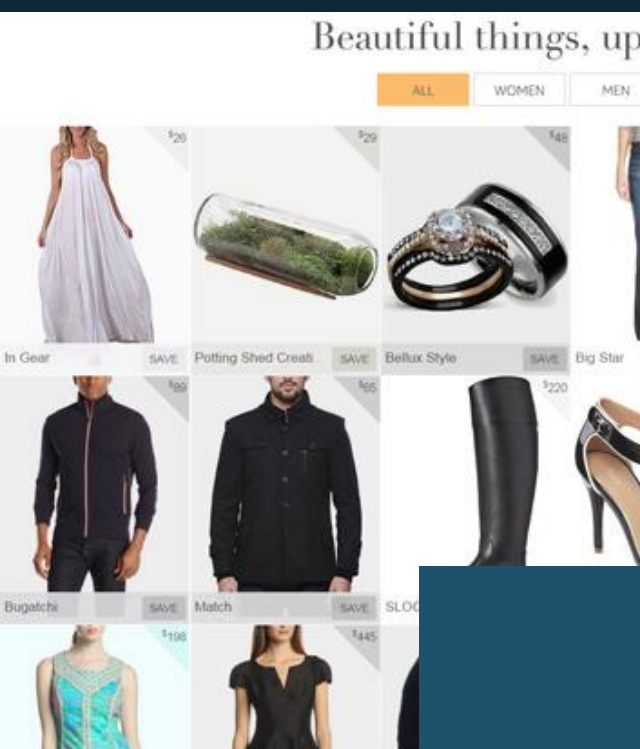
A Flywheel for Data

More **data** than ever, but how do you use it?



The Advent of AI



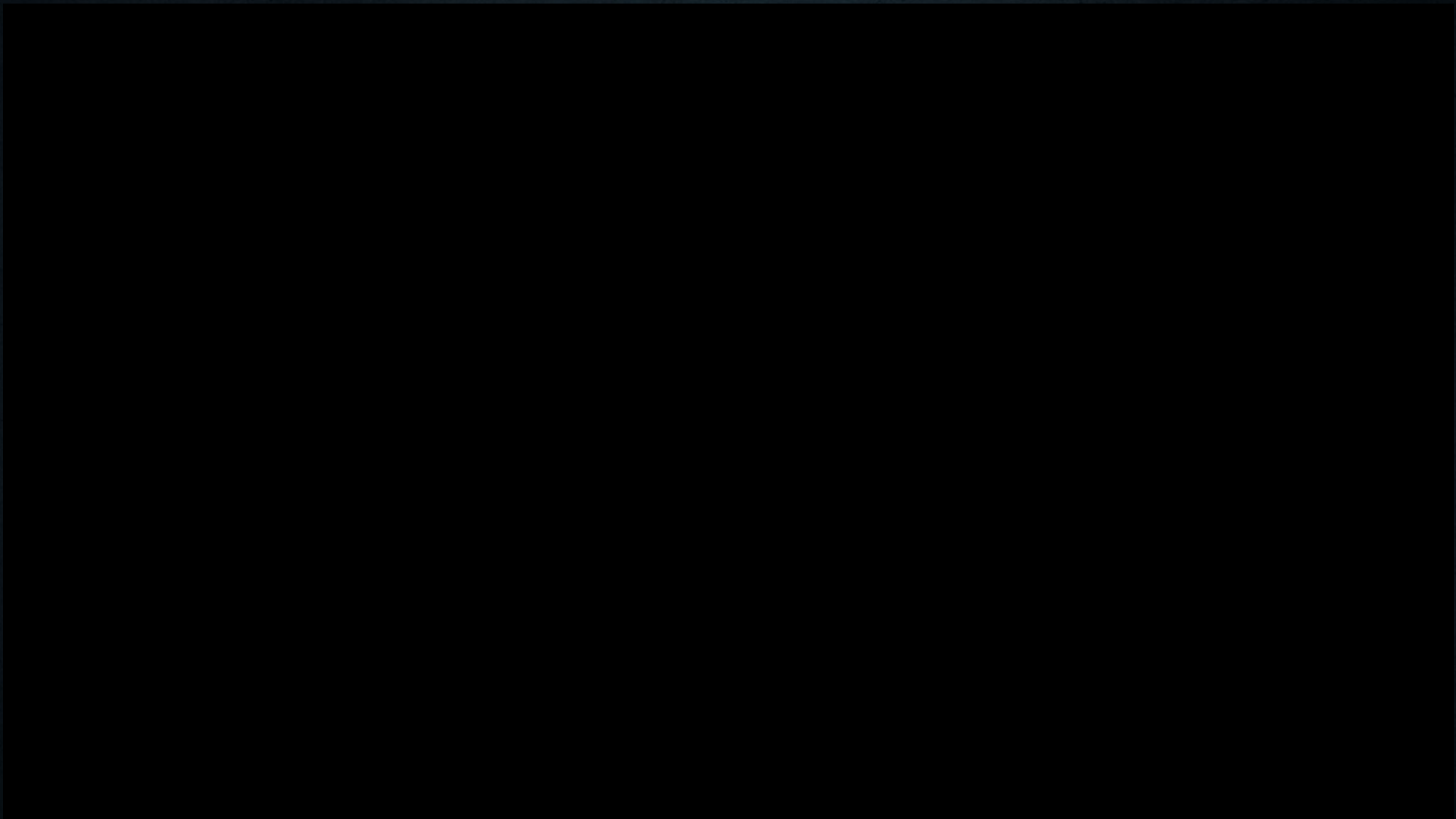


Amazon AI

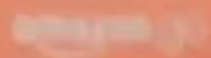


Arizona State University & Amazon bring voice-technology programme to campus





JUST
WALK
OUT
SHOPPING



Amazon Rekognition – Image and Video Analysis





Person 15

Person 18

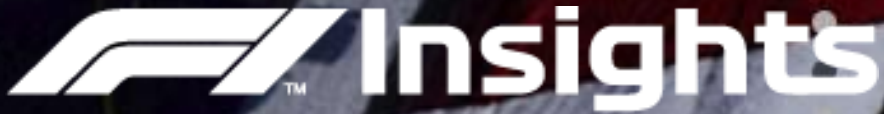
Person 13

Person 10

Person 14

0:00



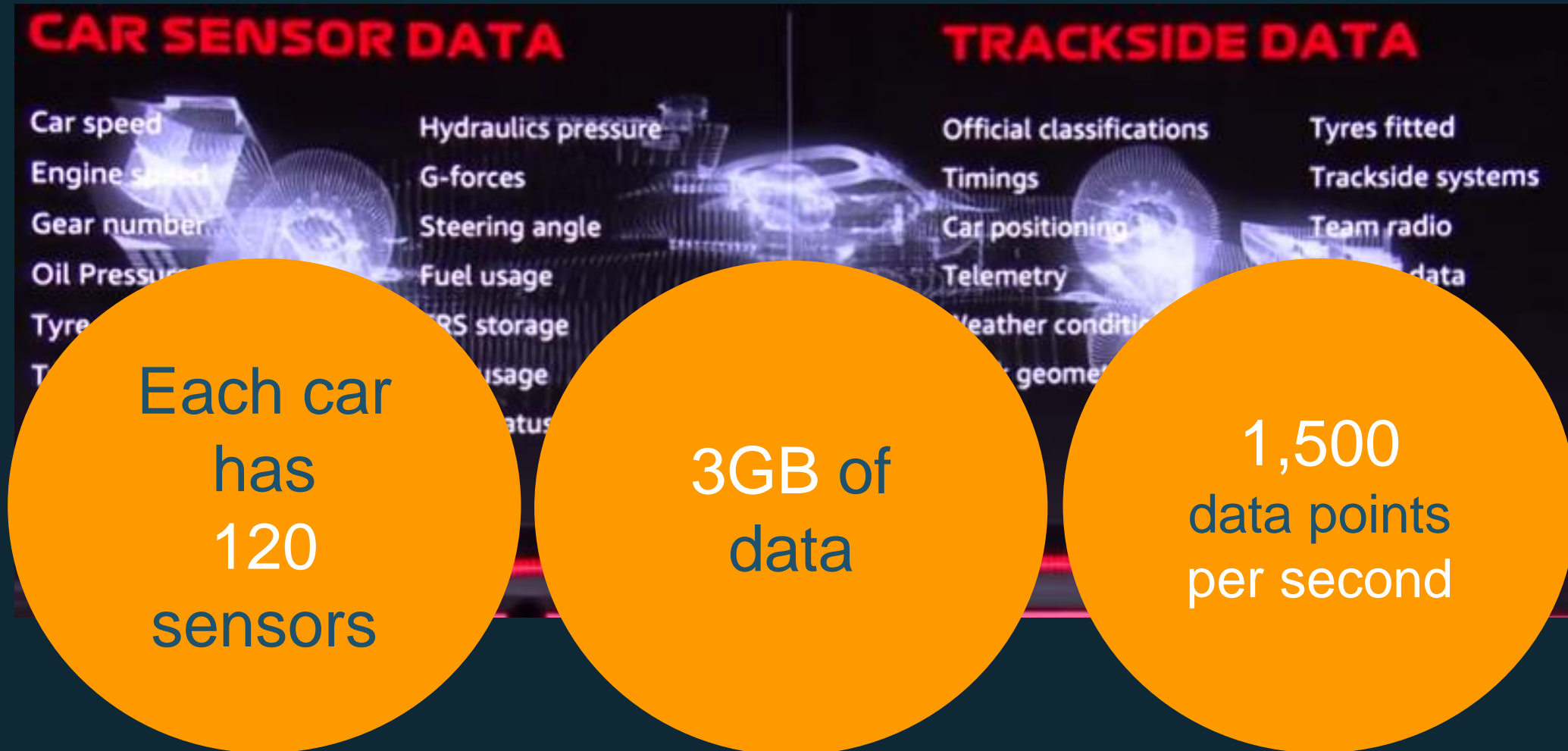


Formula 1 selects AWS as Official Cloud and Machine Learning Provider

F1 has been using AWS to extract critical race performance statistics, make race predictions, and give fans insight into the split second decisions and strategies adopted by teams and drivers



AWS Fuels Analytics Through Machine Learning



Applying Machine Learning to the F1 Data



Overtake probability

Applying Machine Learning to the F1 Data



Pit Stop Advantage

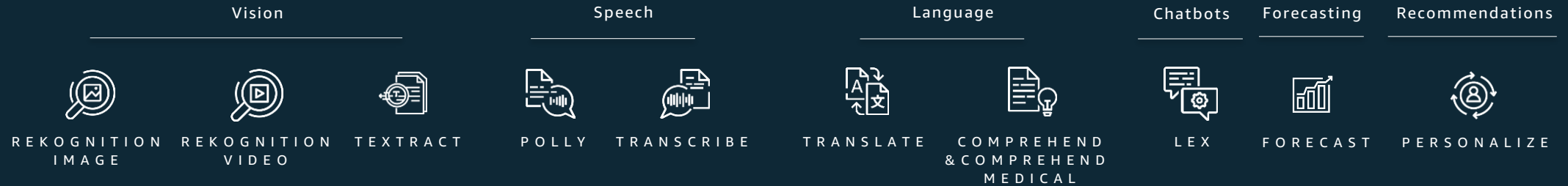
...but how does this help me?

Our mission at 

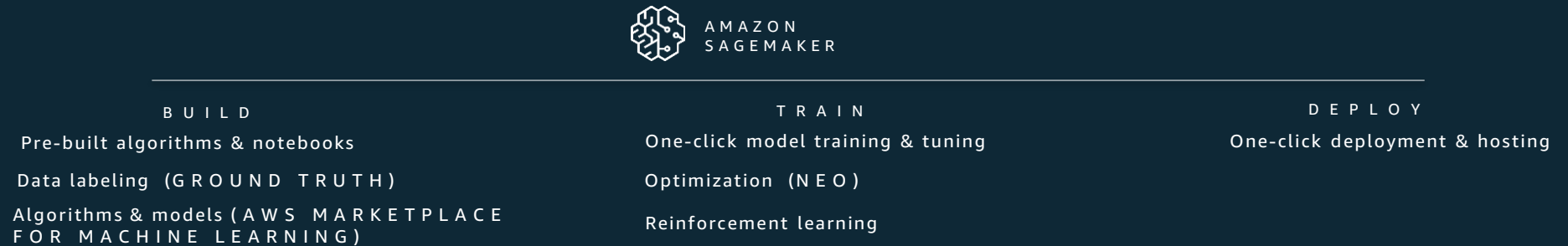
Put machine learning in the
hands of every developer

The Amazon ML Stack: Broadest & Deepest Set of Capabilities

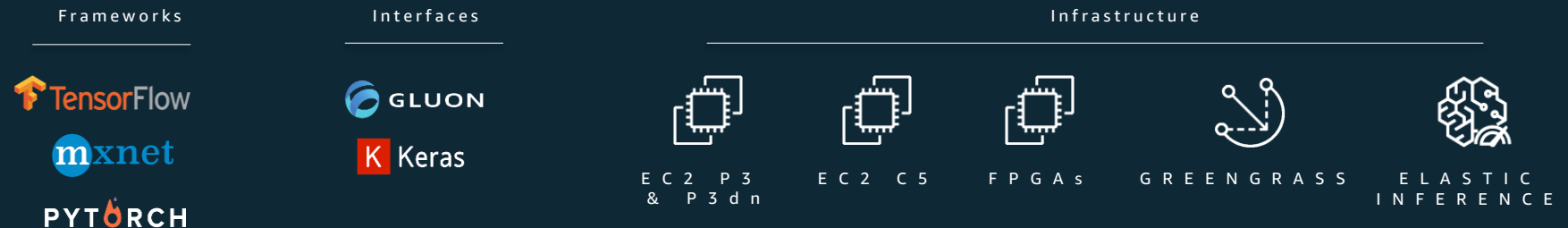
AI SERVICES



ML SERVICES



ML FRAMEWORKS & INFRASTRUCTURE



AI and ML CENTERPIECE FOR DIGITAL TRANSFORMATION



Customer
experience



Business
operations



Decision
making



Innovation



Competitive
advantage

40%

of digital transformation initiatives
supported by AI in 2019

—IDC 2018

3 scenarios for AI/ML success

1. Automation

- Optimize existing processes
- Maintain (or improve) quality & reduce cost

2. Enrichment

- Add new features to products and services
- Increase engagement & attract new custom

3. Invention

- Create new products and categories
- Leverage industry experience + AI expertise

Increasing customer engagement

Using Amazon SageMaker, Tinder analyzes millions of match requests a minute, billions of swipes a day, across more than 190 countries to make the perfect match. With Amazon Rekognition, Tinder creates tags to highlight photos, resulting in 20% increase in engagement.



Connecting tasks and doers

fiverr uses Amazon SageMaker to trigger product recommendations and help users find exactly what they need—including predictively, before they ask for it.

The Fiverr logo is displayed in a white, lowercase, sans-serif font. It is centered within a solid blue rectangular box that has a subtle drop shadow, making it stand out from the background. The background of the slide features a dark blue gradient with abstract, glowing patterns of small dots in yellow and orange, suggesting a network or data flow.

Personalizing customer experiences

Domino's uses Amazon Personalize to customize and scale relevant marketing communications to customers based on time, context, and content, thereby improving and enhancing their experience with the Domino's brand.





Using Machine Learning to optimize game-levels

Improving the design of game levels so they will offer optimized ratio of challenge vs accomplishment. Saving Rovio's developers from spending 50% of their time on manually optimizing game levels to few hours

WIRED



Petri Hyokyranta
Rovio CTO

“...[AI] handles the mundane tasks...but there’s still no way to measure or predict player satisfaction. Joy is not something that can be modeled, so initial development and quality assessment will remain in the hands of human designers”



Expediting watch returns process using image recognition

Item returns was a customers friction point. To speed it up, they created an automated image recognition process using **Amazon Rekognition**. Allowing them to automate process of identifying products and printing labels. They have been able to process returns 15 times faster and with higher accuracy.

[to blog post](#)

Enforcing compliance at scale

Coinbase uses machine learning models on Amazon SageMaker to help with fraud prevention, identity verification, and large-scale compliance. Using Amazon Sagemaker reduced model training times from 20 hours to 10 minutes.

The Coinbase logo is displayed in white lowercase letters on a dark blue rectangular background. The logo is centered within the rectangle.



SkinVision

Saving lives by putting technology in people's hands

SkinVision offers a free-to-download app that allows people to scan their bodies in their own homes and have the pictures assessed by SkinVision's machine learning-based algorithms in 30 seconds.

<https://aws.amazon.com/solutions/case-studies/skinvision/>

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Ivy Tech are using data for student retention

In autumn 2016, Ivy Tech made 23,000 calls to 16,000 students predicted to fail in their courses, to check in and offer targeted assistance.

By mid-term: a 3.3% drop in the number of D & F grades across all students

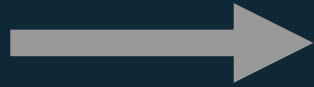




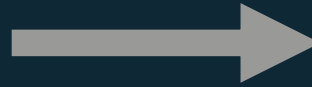
Amazon Lex was able to handle 40% of the incoming call volume.

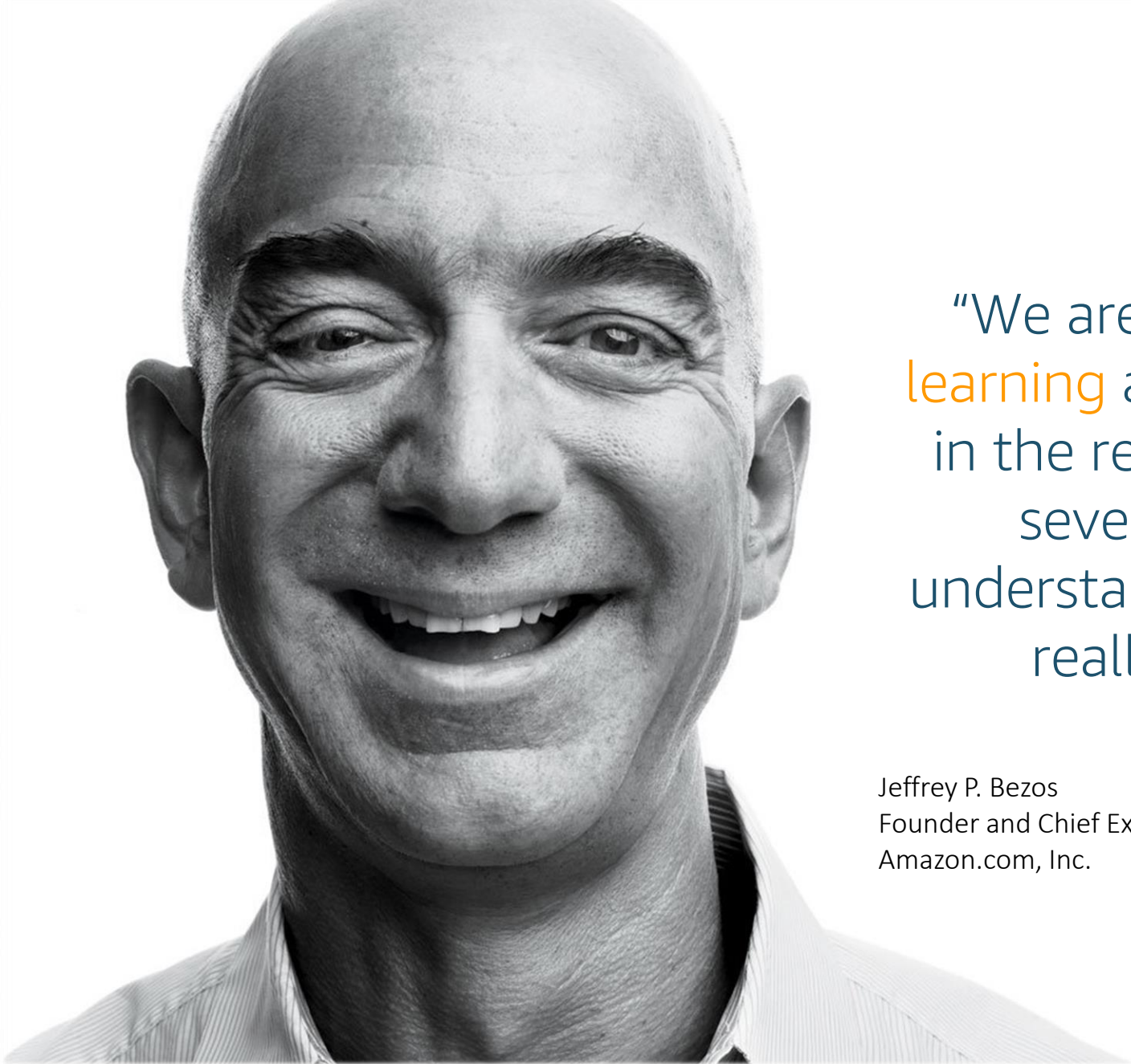
Amazon Polly: Text In, Life-like Speech Out

"The weather
today in Seattle,
WA is 65°F"



Amazon Polly





"We are solving problems with machine learning and artificial intelligence that were in the realm of science fiction for the last several decades. Natural language understanding, machine vision problems, it really is an amazing renaissance."

Jeffrey P. Bezos
Founder and Chief Executive Officer
Amazon.com, Inc.

So what will you
build next as you
embark on your
career?

Start experimenting yourself! AWS Educate



Amazon's Global Initiative to accelerate cloud learning and to prepare for the cloud-enabled jobs of tomorrow.

A screenshot of the AWS Educate landing page. The background is a solid blue color with faint, white, wavy lines. At the top center is the "aws educate" logo, where "aws" is in white and "educate" is in a lighter blue, with a graduation cap icon between them. Below the logo is the main heading "Teach Tomorrow's Cloud Workforce Today" in a large, white, sans-serif font. Underneath the heading is a horizontal white line. Below the line is a paragraph of white text: "With the increasing demand for cloud employees, AWS Educate provides an academic gateway for the next generation of IT and cloud professionals. AWS Educate is Amazon's global initiative to provide students and educators with the resources needed to accelerate cloud-related learning." At the bottom center is a large, orange, rounded rectangular button with the text "Join AWS Educate" in white. Below the button is the text "Login to AWS Educate" in a smaller, white, sans-serif font.

aws educate

Teach Tomorrow's Cloud Workforce Today

With the increasing demand for cloud employees, AWS Educate provides an academic gateway for the next generation of IT and cloud professionals. AWS Educate is Amazon's global initiative to provide students and educators with the resources needed to accelerate cloud-related learning.

[Join AWS Educate](#)

[Login to AWS Educate](#)

AWS Educate: program benefits



Institutions, educators, students, may apply to receive access to:



Curated, Open-source Content



Hands-On Learning using AWS Promotional Credits



Job Board mapped to career pathways



Training and Professional Development

Choose your AWS Educate Career Pathways



Machine Learning Scientist

Machine Learning Scientists create the products of the future. They collaborate with subject matter experts, design algorithms, and develop predictive data models that result in new features and enhancements that delight customers.

If you have a passion for diving deep into data and software development and want to shape the customer experiences of tomorrow, get started with the Machine Learning Scientist Pathway today.

Skills to Succeed

Learn about the diverse knowledge and skills Machine Learning Scientists use every day, including distributed systems, programming and scripting, and data analytics.

25 Hours of Learning

With a mix of videos, papers, labs, quizzes, and a final project, explore the skills you'll need in the way you prefer, and at your own pace.

Prepare for the Future

Machine Learning Scientists have degrees in fields like Computer Science or Applied Mathematics, along with demonstrated experience in the skills included in this pathway.

Check out our job board to learn more about machine learning roles available. [Click here.](#)



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