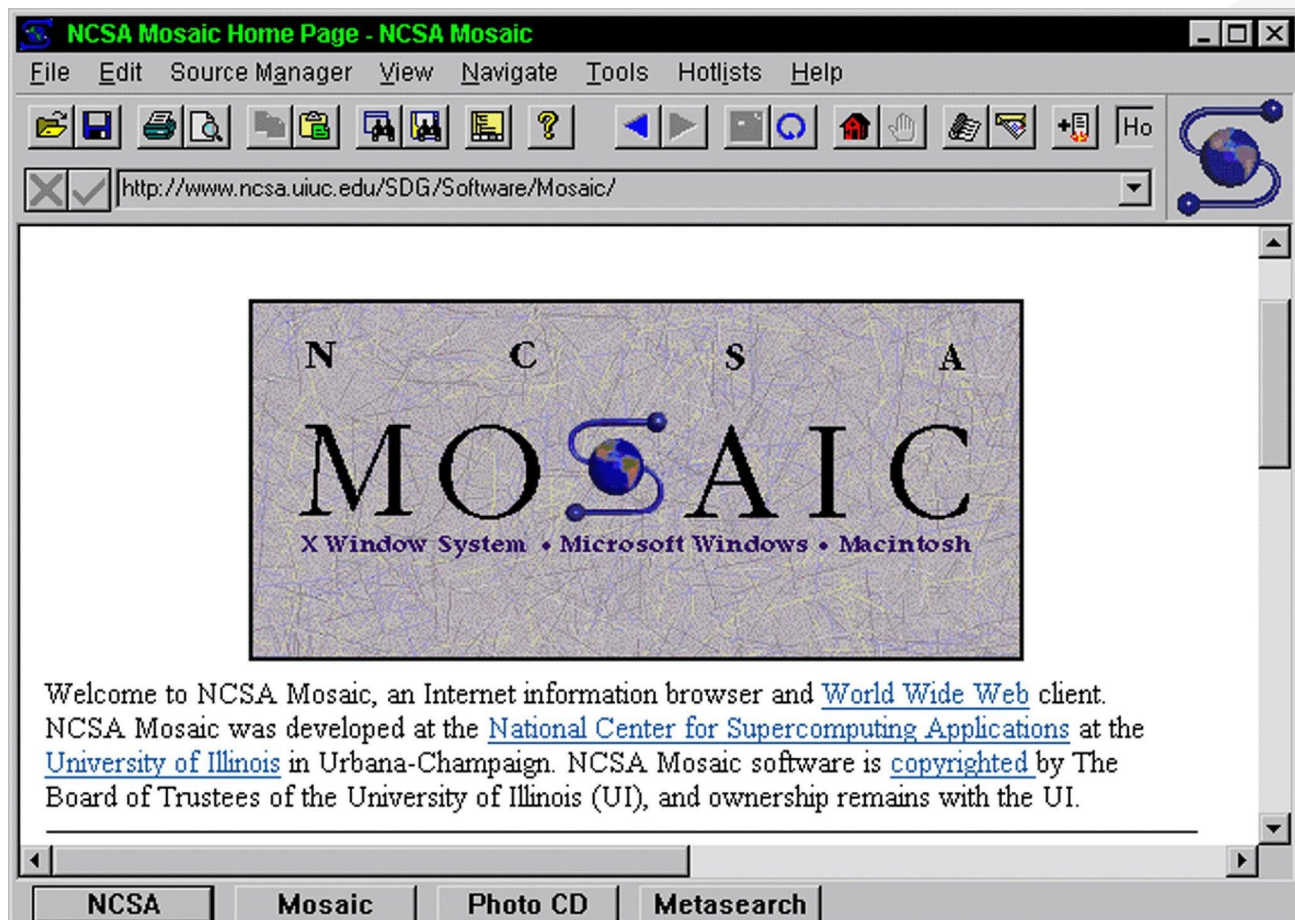




# Lessons learned from AI in enterprise

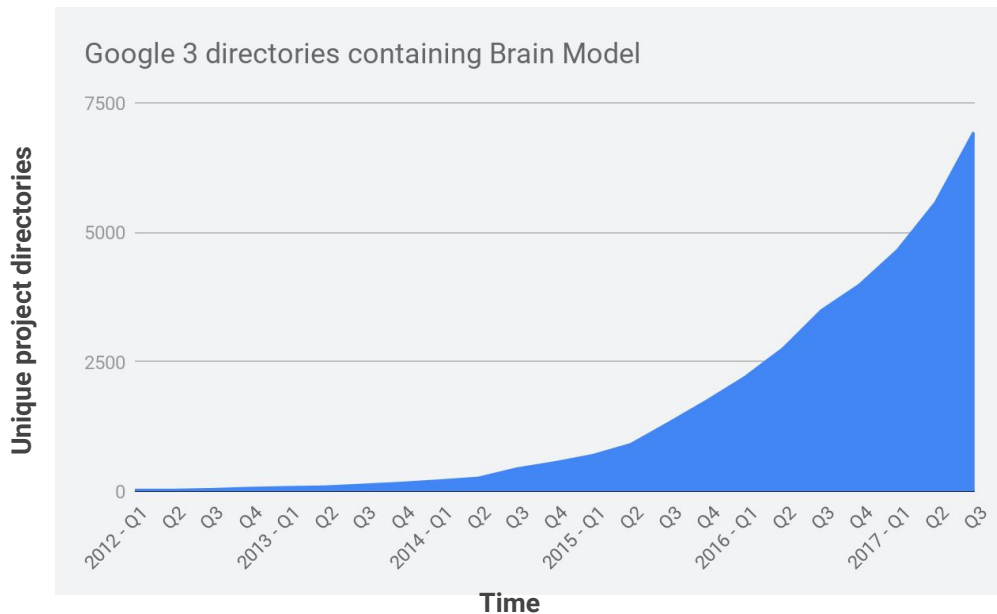
**Rajen Sheth**, Vice President of Product, Cloud AI & ML

Google Cloud

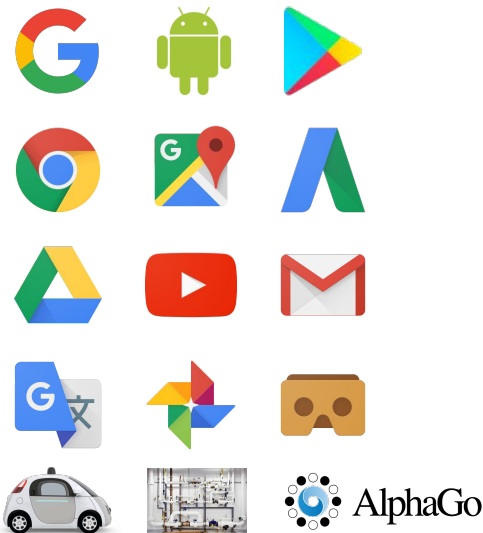


**Over the next decade  
every business will be  
transformed through AI**

# AI has transformed nearly every Google product



Used across products:



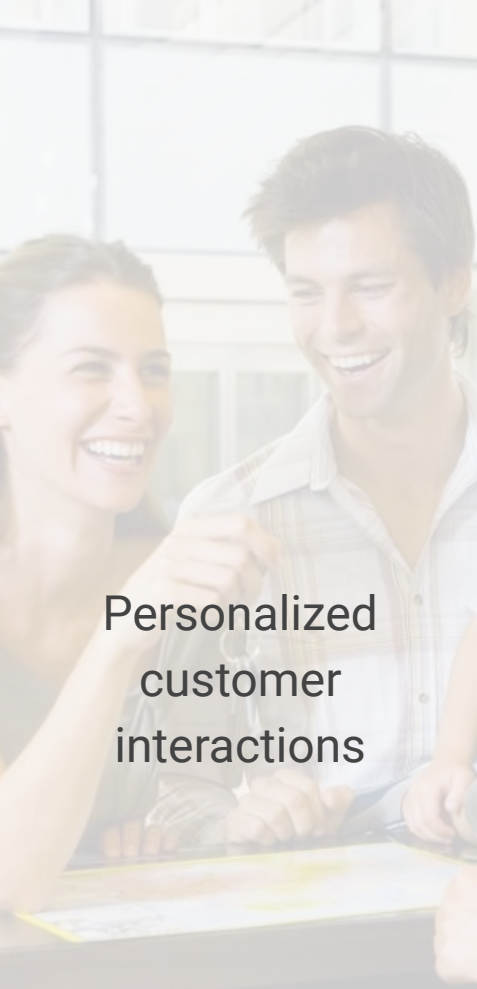
# Domains with the most practical advancement

**Vision**


**Conversation**

**Language**

**Structured  
Data**



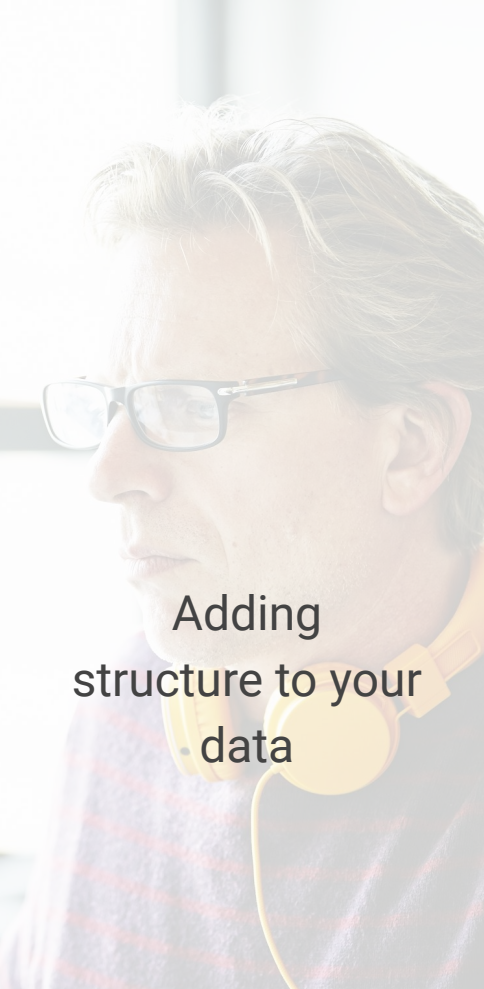
Personalized  
customer  
interactions



Efficiency &  
agility



Spotting  
patterns and  
trends



Adding  
structure to your  
data

# Major benefit to many industries



Retail



Government



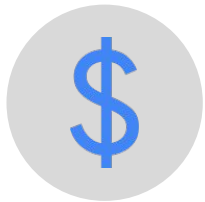
Energy



Media &  
Entertainment



Gaming



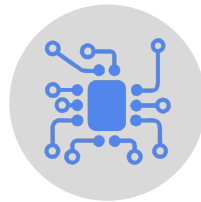
Financial  
Services



Manufacturing



Healthcare &  
Life Sciences



Technology



Marketing

# Businesses are still nascent in their AI journey

I know I should  
use AI, but  
why?

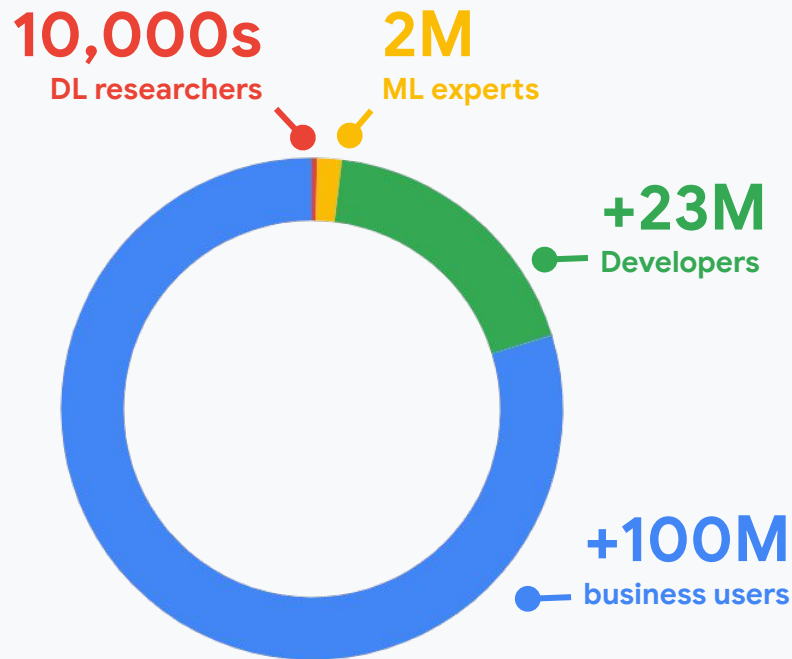
I know why I  
need AI, but  
how?

I know why and  
how, but what  
tools?



# Who can actually use AI today?

Very few people can create custom ML models today



# Some other major challenges with AI

## Use Case



Is it mission critical, or is it just cool?

## Trust



Can I trust AI, and what are the implications?

## Deployment and integration



60% of models intended for production never see the light of day

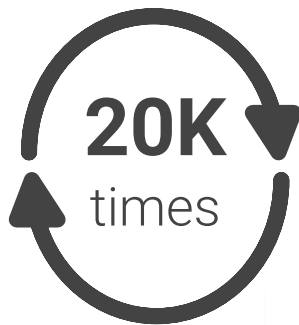
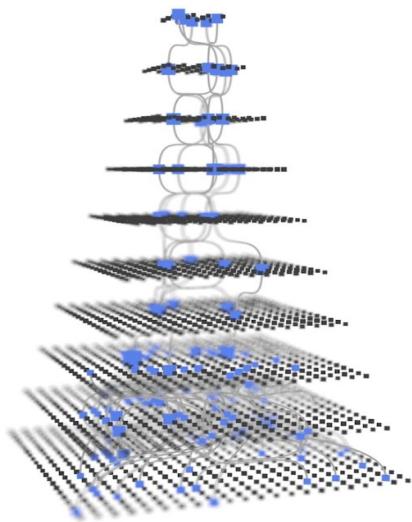
## Data



Data is scarce or hard to use

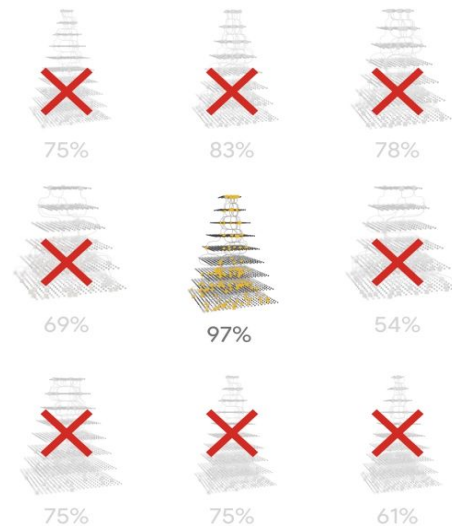
# Solving the talent and data gap: AutoML

Controller: proposes ML models



Iterate to  
find the  
most  
accurate  
model

Train & evaluate models



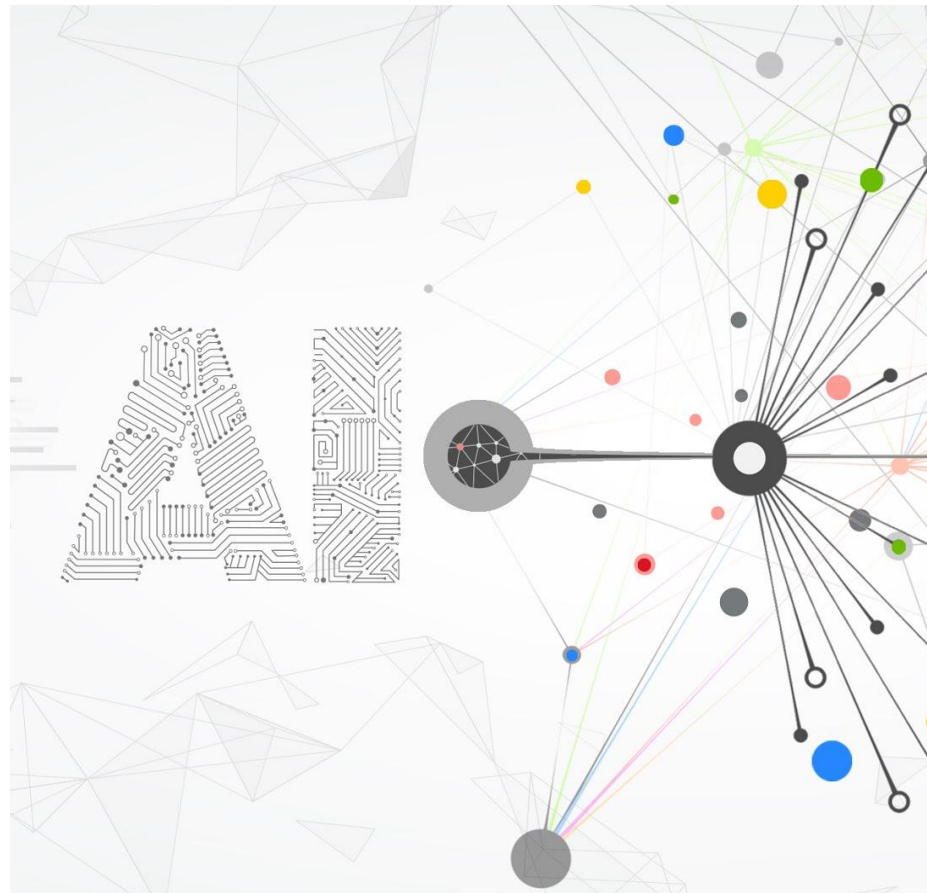
**Solving the talent gap: Teach the world**

kaggle

Changing workforce

Bias in the data

Impact of the use of AI



# Google AI Principles

## AI should:

- 1 be socially beneficial
- 2 avoid creating or reinforcing unfair bias
- 3 be built and tested for safety
- 4 be accountable to people
- 5 incorporate privacy design principles
- 6 uphold high standards of scientific excellence
- 7 be made available for uses that accord with these principles

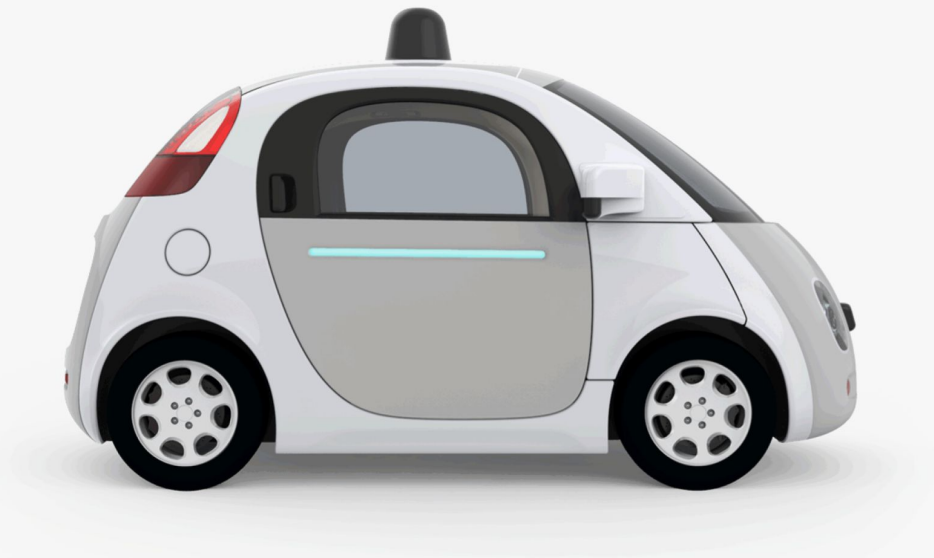
## Applications we will not pursue:

- 1 likely to cause overall harm
- 2 principal purpose to direct injury
- 3 surveillance violating internationally accepted norms
- 4 purpose contravenes international law and human rights



Google Cloud

# Lessons learned in building AI for businesses

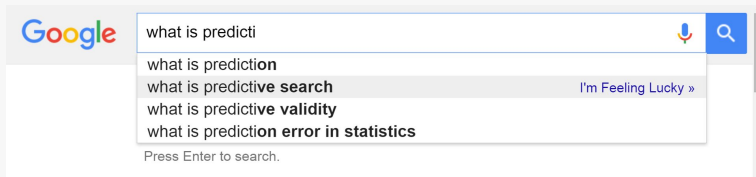


**Start with your key business objectives**





# Sometimes the simplest uses are most powerful



**Predictive search**

# Bloomberg



Cloud  
Translation

# Focus on the user experience, not the technology



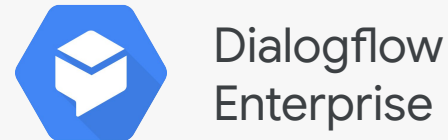
Google Photos



# AI open up new user interaction models



Google Assistant



# AI is a team sport



**ML Engineer**



**Data Engineer**



**Developer**



**Data Scientist**



**Business Analyst**



**End User**

**Think big, and get there a piece at a time**

