# Data Science & Al

**Victor Geislinger** 



## "So Who Are You?"

# Who Am !?

#### Who Am I?

Teacher
Software (ML)
Engineer
Data Scientist

#### Who Am I?

Physics & Math Degrees

Teacher
Software (ML)
Engineer
Data Scientist

#### Who Am I?

**Physics & Math Degrees** 

**Teacher Software (ML)** Engineer **Data Scientist** 

**Creating Al Especially With Natural** Language

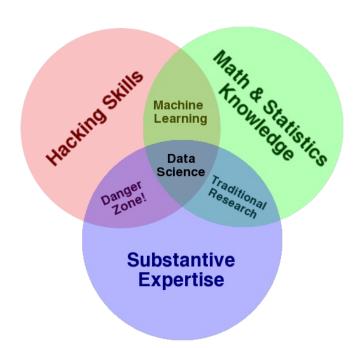


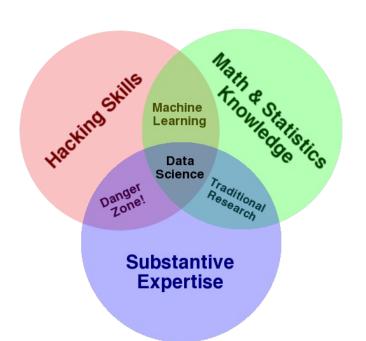


### **What is Data Science & AI?**

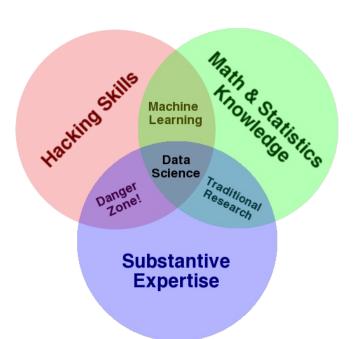
You might already be using it

## Data Science



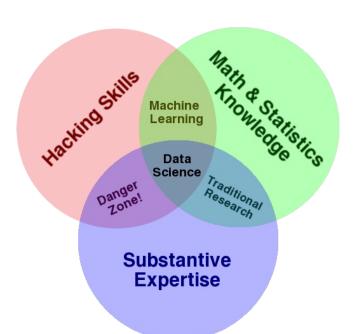


Various Subjects (Cross-Disciplinary)



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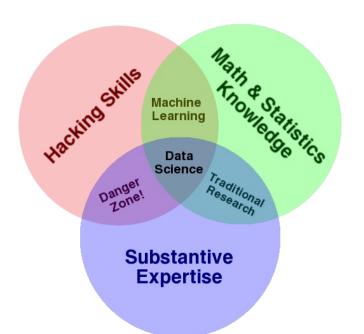
**Computers: Doing More Faster** 



Various Subjects (Cross-Disciplinary)

**Computers: Doing More Faster** 

Connecting Math to the Real World

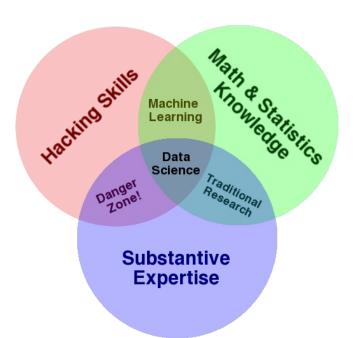


Various Subjects (Cross-Disciplinary)

**Computers: Doing More Faster** 

Connecting Math to the Real World

**Communicating Ideas** 



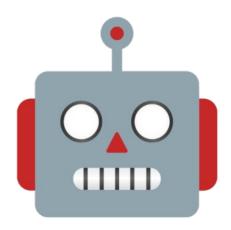
Various Subjects (Cross-Disciplinary)

**Computers: Doing More Faster** 

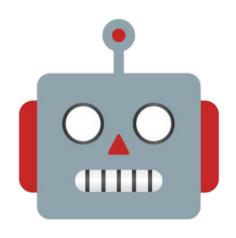
Connecting Math to the Real World

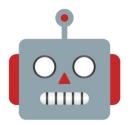
**Communicating Ideas** 

# Artificial Intelligence (AI)



Past Information ("Data") to Make "Better" Decisions



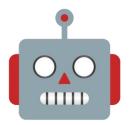


Past Information ("Data") to Make "Better" Decisions

?

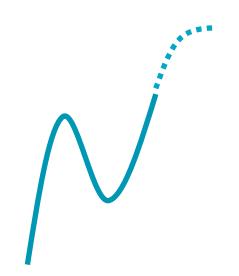
**Predicting** 

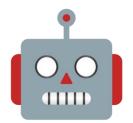




Past Information ("Data") to Make "Better" Decisions

**Predicting** 



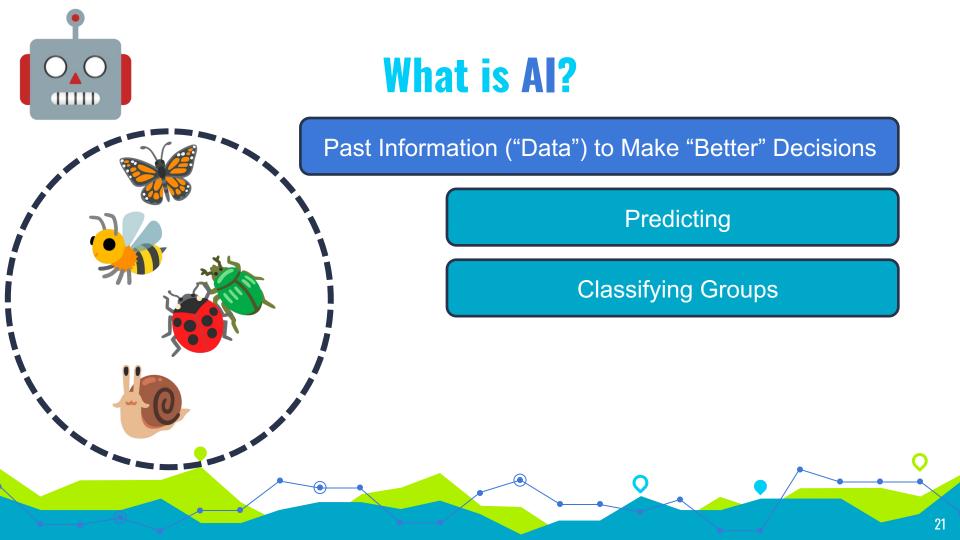


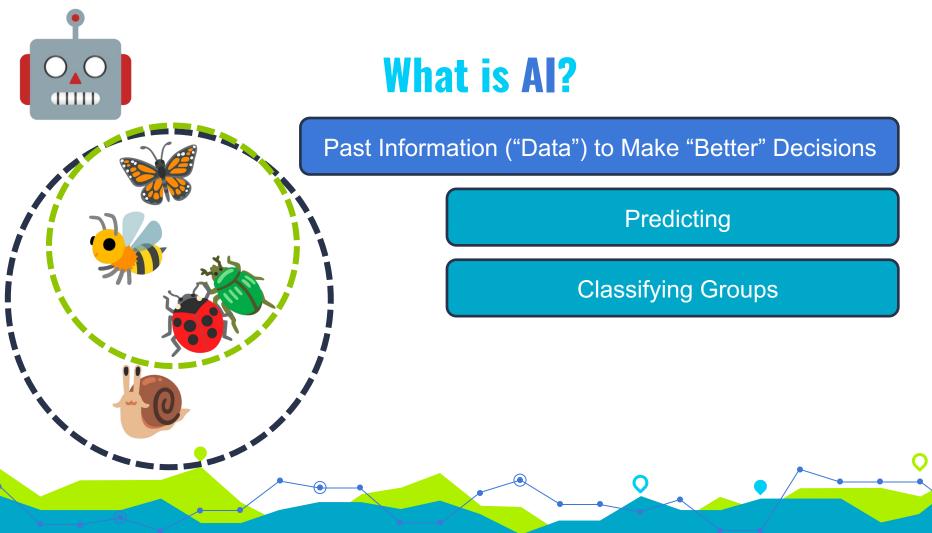
Past Information ("Data") to Make "Better" Decisions

Predicting

**Classifying Groups** 





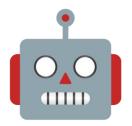




Past Information ("Data") to Make "Better" Decisions

**Predicting** 

**Classifying Groups** 



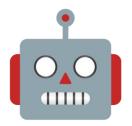
Past Information ("Data") to Make "Better" Decisions



**Predicting** 

**Classifying Groups** 

"Reinforcement Learning"



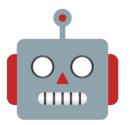
Past Information ("Data") to Make "Better" Decisions



**Predicting** 

**Classifying Groups** 

"Reinforcement Learning"



Past Information ("Data") to Make "Better" Decisions

**Predicting** 

**Classifying Groups** 

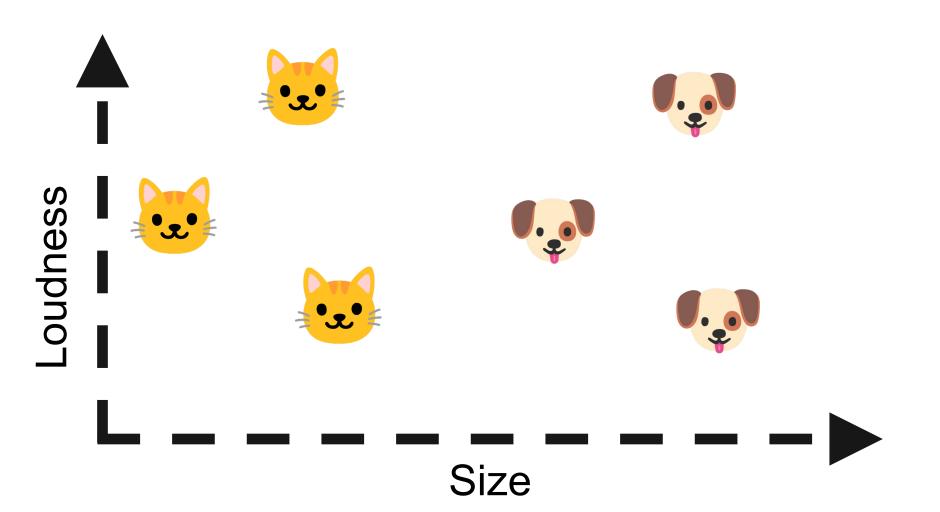
"Reinforcement Learning"

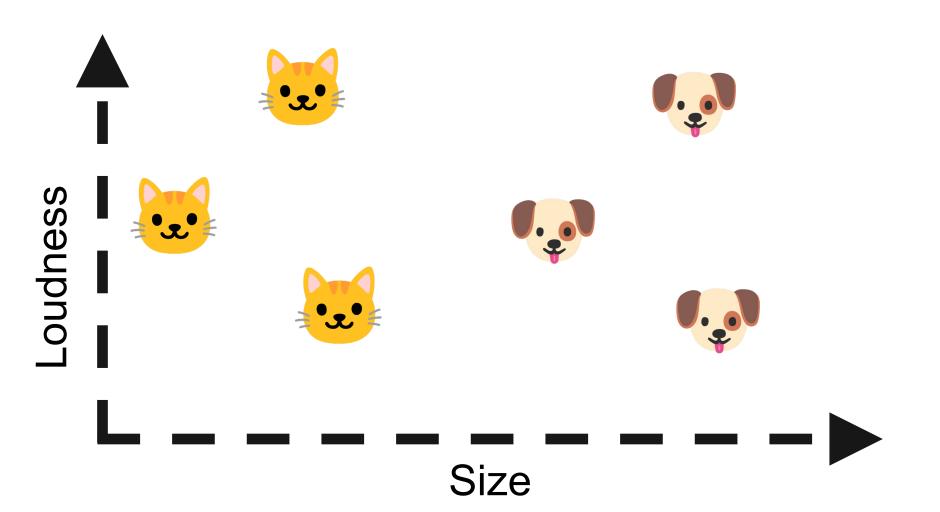
Generative

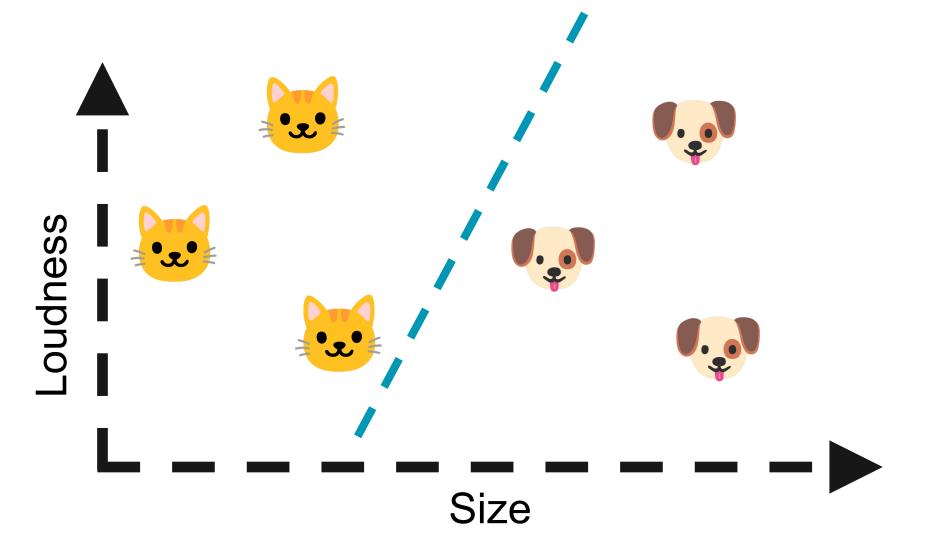


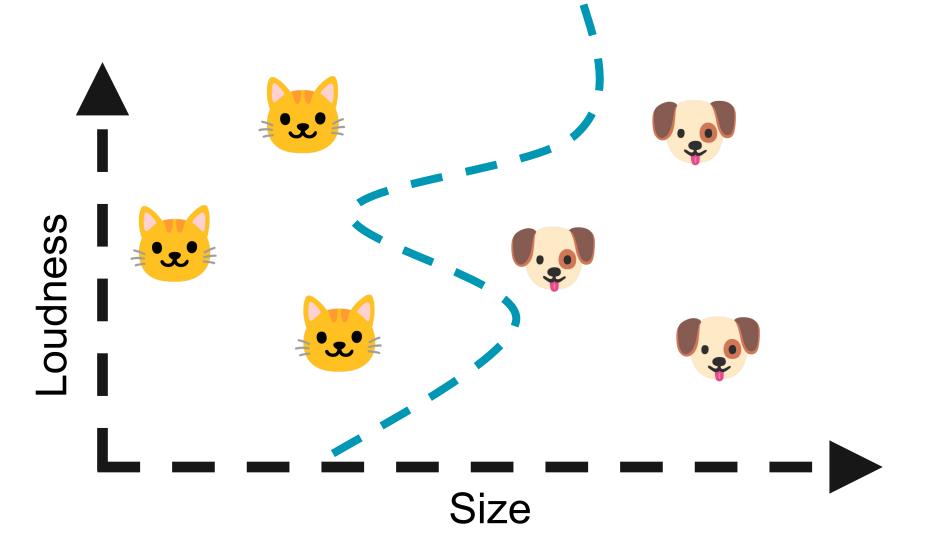
## **How AI Works**

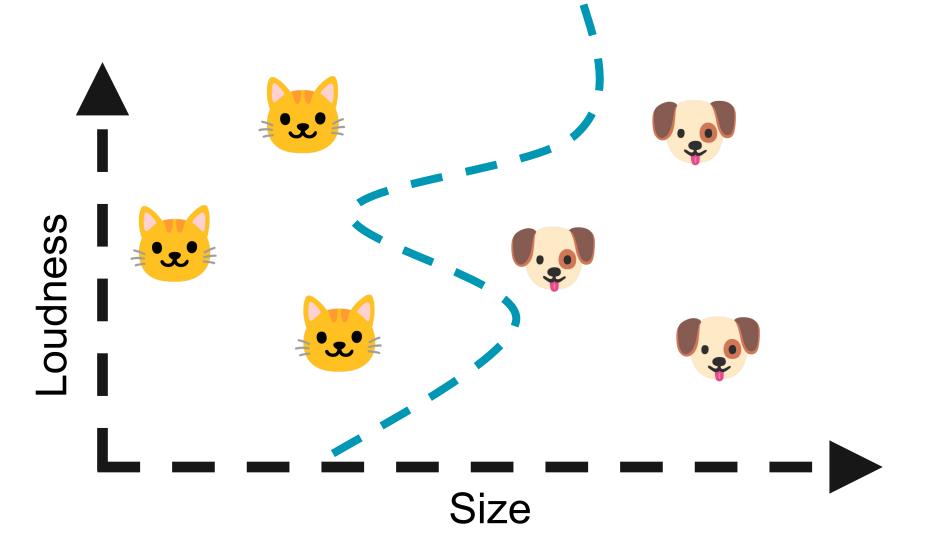
Many Different Ways...

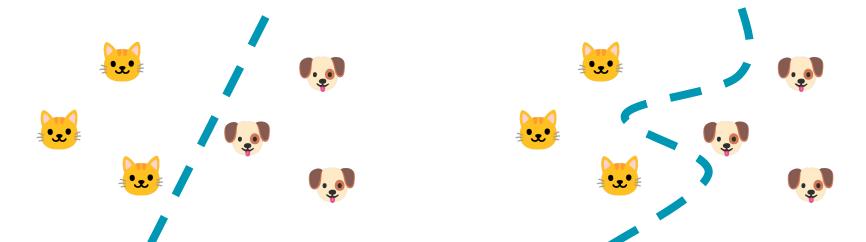


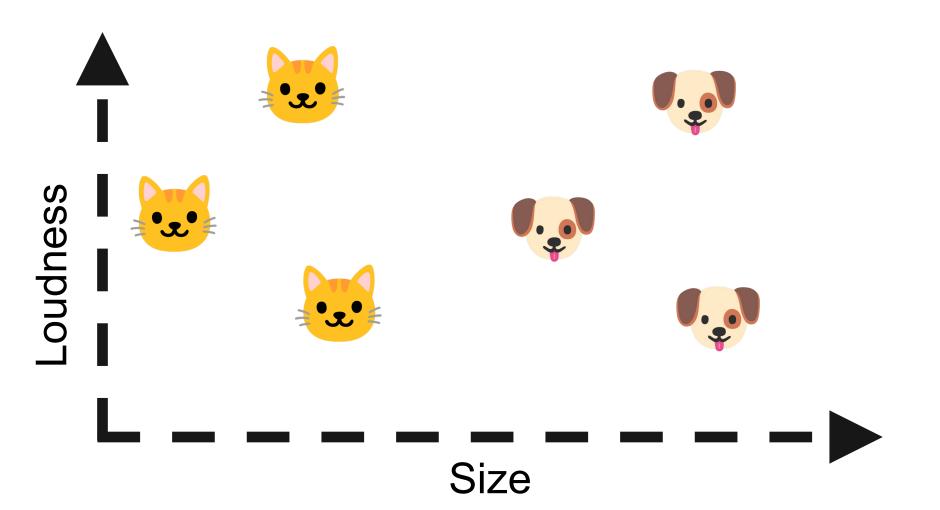


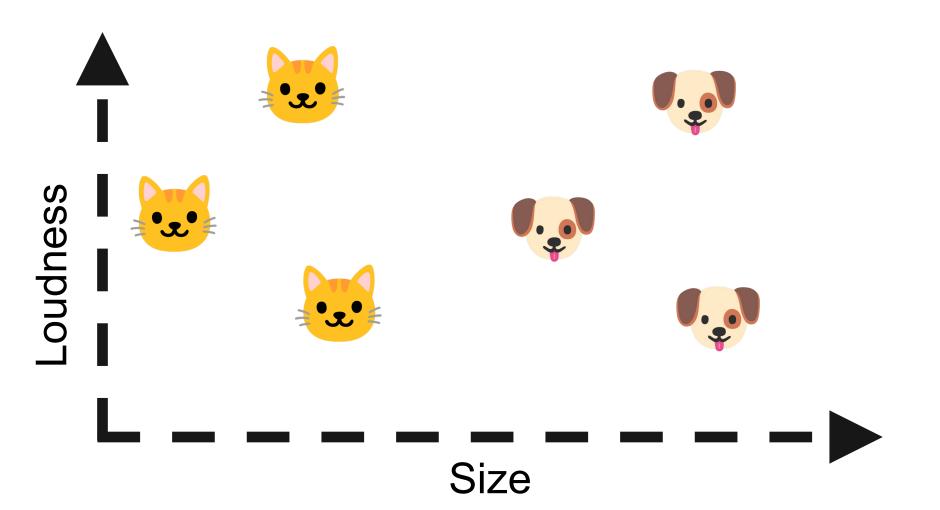


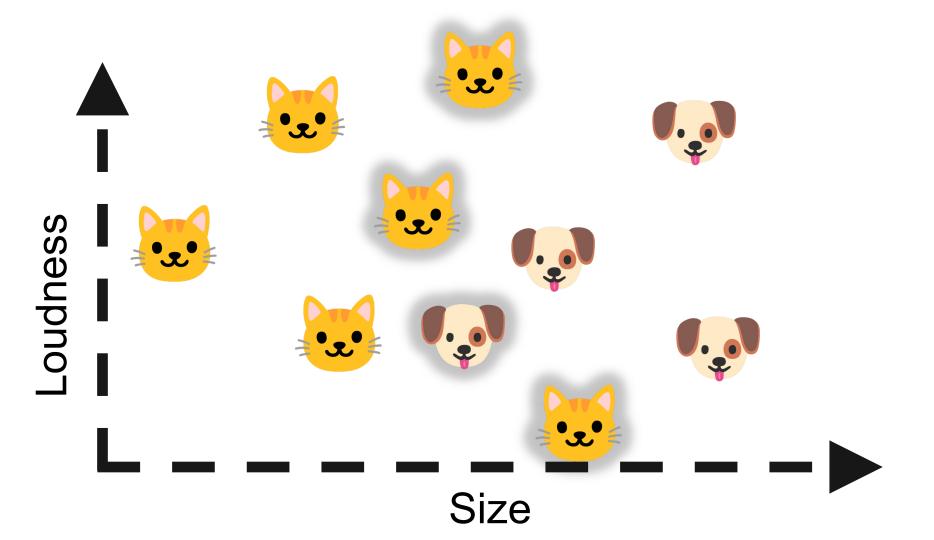


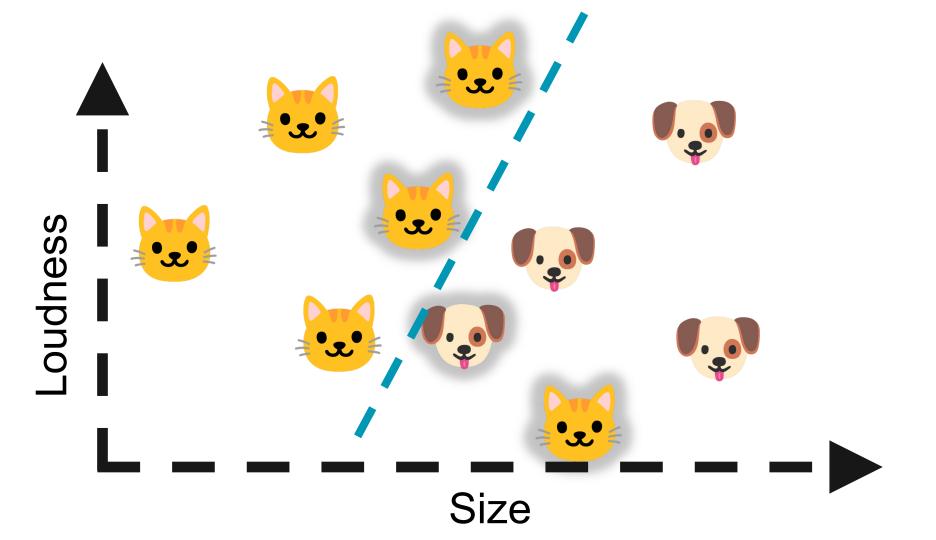


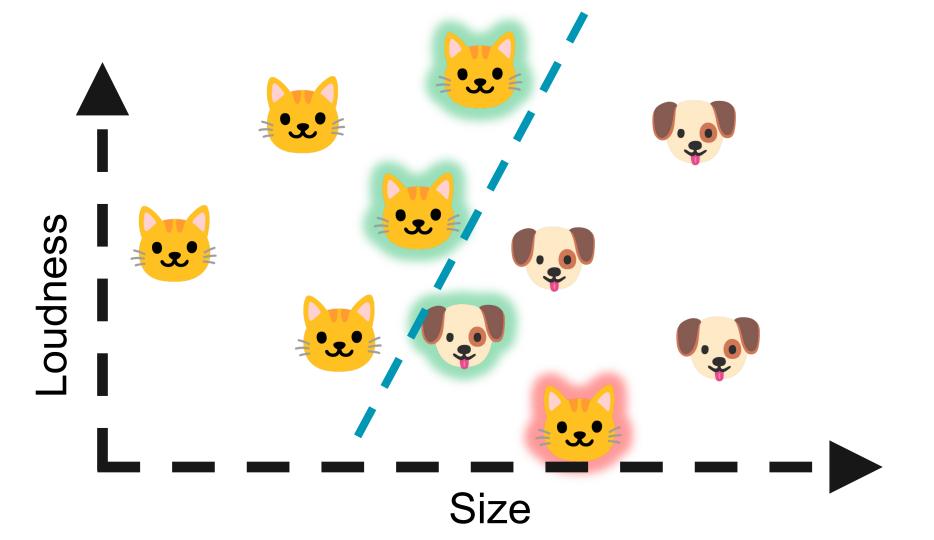


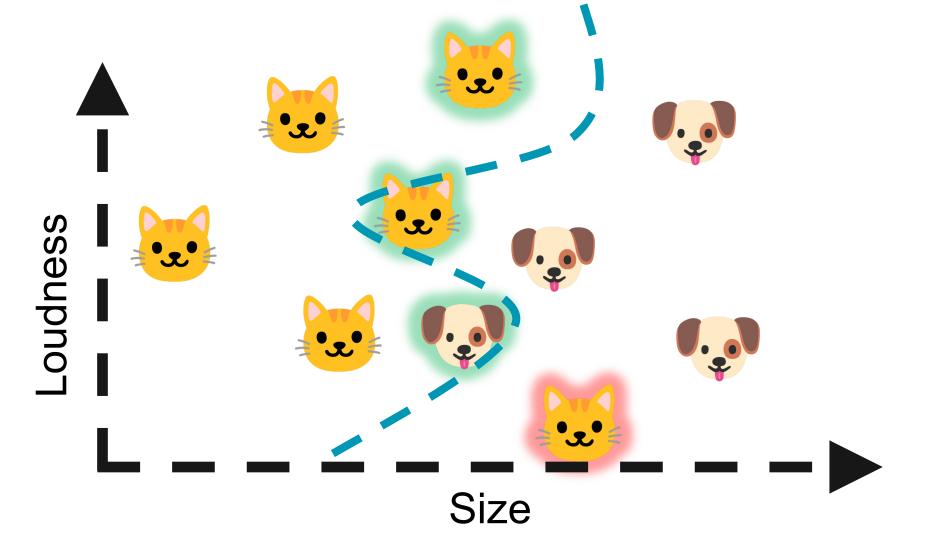


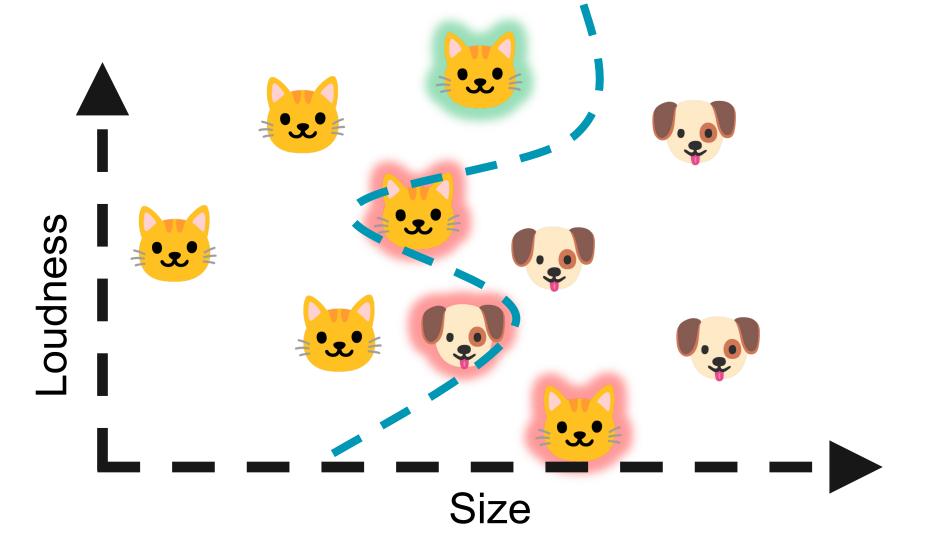


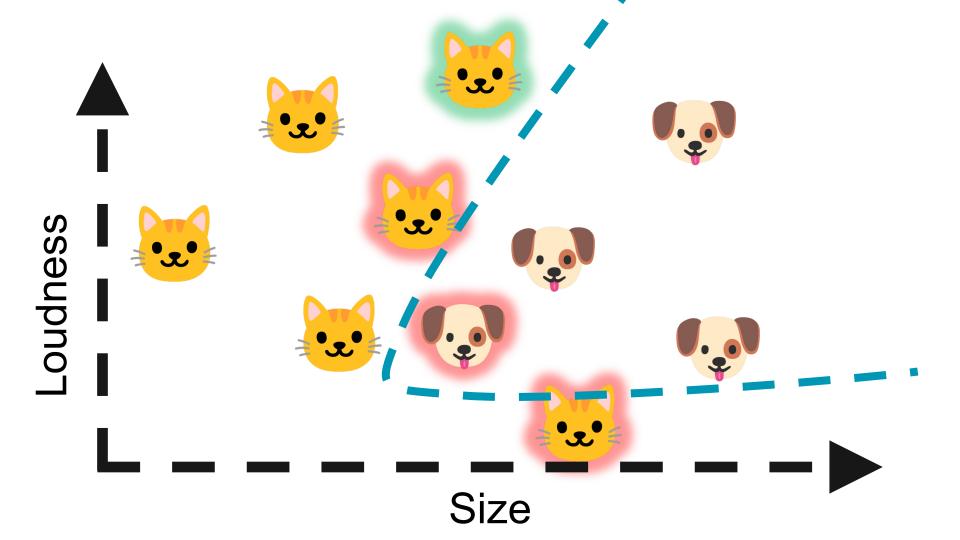


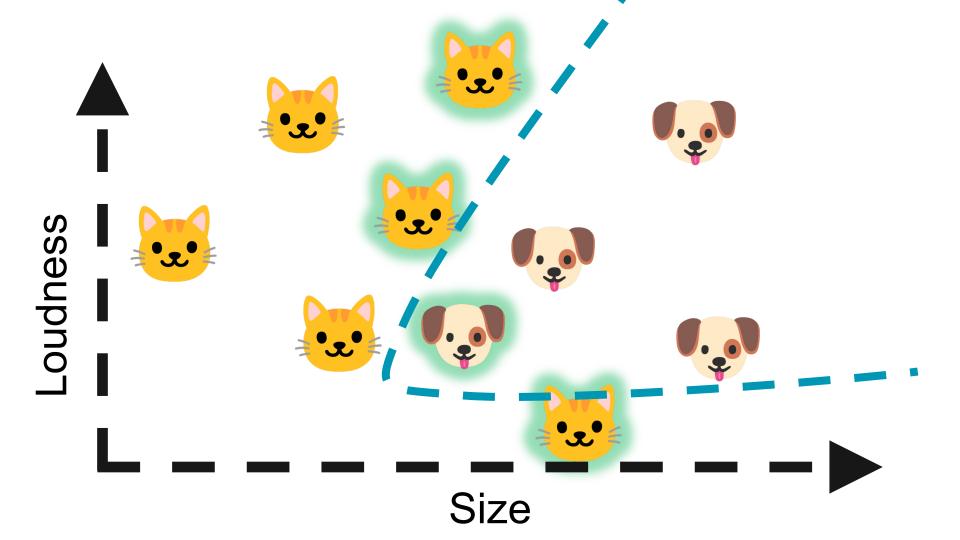






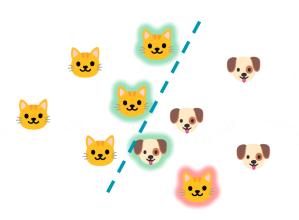






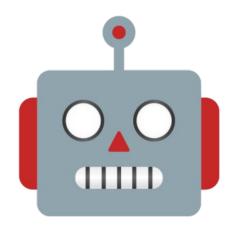
## Where's the AI?

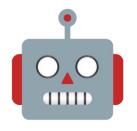
#### Where's the AI?





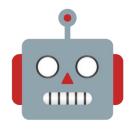
### **AI: Current & Future**





#### **Current AI**

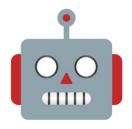




Generating Writing: ChatGPT

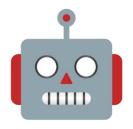
Image Generation: Midjourney





Generating Writing: ChatGPT

Image Generation: Midjourney

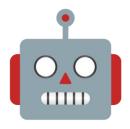


Generating Writing: ChatGPT

Image Generation: Midjourney

Robotics (Self-Driving)

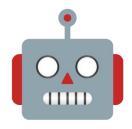




Generating Writing: ChatGPT

Image Generation: Midjourney

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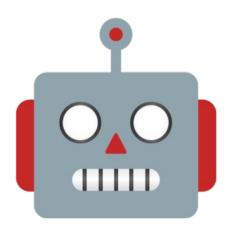
**Generating Writing: ChatGPT** 

Image Generation: Midjourney

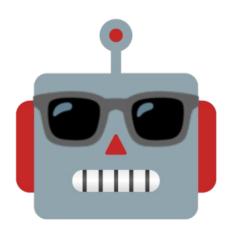
Robotics (Self-Driving)

**Decision Making** 

Science/Medical Research



#### **Future of AI?**





### **Concerns About Al**

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Privacy

**Jobs & Careers** 

Ethics in Its Usage

Who Has the Final Say

Understanding Al

**Emerging Technology** 

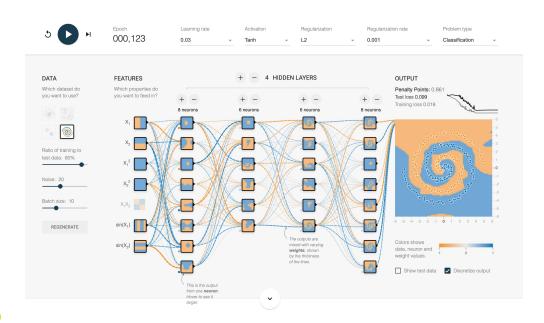




### **TensorFlow Playground Activity**



## TensorFlow Playground Playing with Real Al





## Questions & Answers Time AMA

# THANKS!

@MrGeislinger / mrgeislinger.com











#### PRESENTATION DESIGN

Special thanks to all the people who made and released these awesome resources for free:

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