How Does AI Actually Learn?

Be the model: sort the cards, score them with real knobs, and see what narrow data does.

1 · REMEMBER THE LOOP

Fill in the missing words. Every line is a caption from the episode.

Every example comes with the right answer. That's _____.

Data in. _____. Feedback. Adjust. Repeat.

Data in. Guess. Feedback. _____. Repeat.

That's bias: a _____ pattern, learned from narrow data.

2 · SORT THE NEW ANIMALS

Cut out the 6 cards. The model never saw any of them while it learned. Sort them into a Dog pile and a Not a dog pile.

Husky

- ■ Big body
- ☐ Long fur
- ☐ Floppy ears
- ■ Long snout
- ☐ Golden color
- ■ Round pupils

Dachshund

- ☐ Big body
- ☐ Long fur
- ■ Floppy ears
- ■ Long snout
- ☐ Golden color
- ■ Round pupils

Yellow lab

- ■ Big body
- ☐ Long fur
- ■ Floppy ears
- ■ Long snout
- ■ Golden color
- ■ Round pupils

Chihuahua

- ☐ Big body
- ☐ Long fur
- ☐ Floppy ears
- ☐ Long snout
- ☐ Golden color
- ■ Round pupils

Siamese cat

- ☐ Big body
- ☐ Long fur
- ☐ Floppy ears
- ☐ Long snout
- ☐ Golden color
- ☐ Round pupils

Tiger

- ■ Big body
- ☐ Long fur
- ☐ Floppy ears
- ■ Long snout
- ■ Golden color
- ☐ Round pupils

3 · BE THE MODEL

Pick a card. Add the knob for every clue it has, then add the starting lean. More than 0 means "dog". 0 or less means "not a dog". Do it with both sets of knobs.

Predict first: which dogs will the golden-only knobs get wrong? _____

Clue	Golden-only	All kinds
Big body	+1	+1
Long fur	0	0
Floppy ears	+3	+3
Long snout	+1	+2
Golden color	-1	-1
Round pupils	+1	+3
Starting lean	**-3**	**-2**

Card	Your sort	Golden-only	says	All kinds	says
Husky					
Dachshund					
Yellow lab					
Chihuahua					
Siamese cat					
Tiger					

4 · TALK ABOUT IT

1. What's something you learned by trying, not by reading rules?
2. The model never "saw" a dog - just 6 clues. What clue would you add?
3. If an AI only learned from people like you, who might it get wrong?

Honest scale note: this tiny model looks at 6 yes/no clues. Real image models look at millions of pixels, but the loop is the same idea.

Answer key for grown-ups: 1) training data, Guess, Adjust, narrow. 3) Golden-only knobs: Husky 0 not a dog; Dachshund 2 dog; Yellow lab 2 dog; Chihuahua -2 not a dog; Siamese cat -3 not a dog; Tiger -2 not a dog. All kinds knobs: Husky 4 dog; Dachshund 6 dog; Yellow lab 6 dog; Chihuahua 1 dog; Siamese cat -2 not a dog; Tiger 0 not a dog.