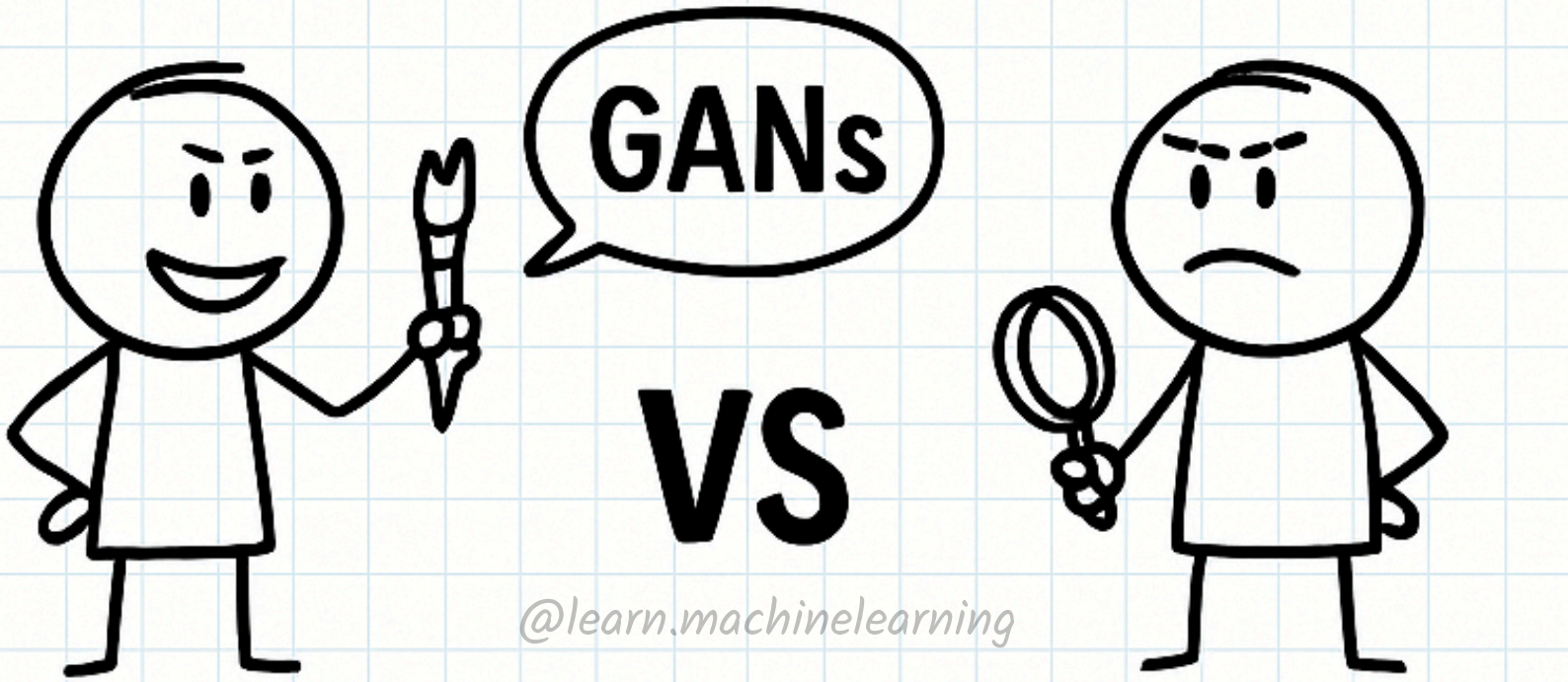
GENERATIVE AI SERIES: DAY 3

Meet GANs: The 'Art Battle' of AI

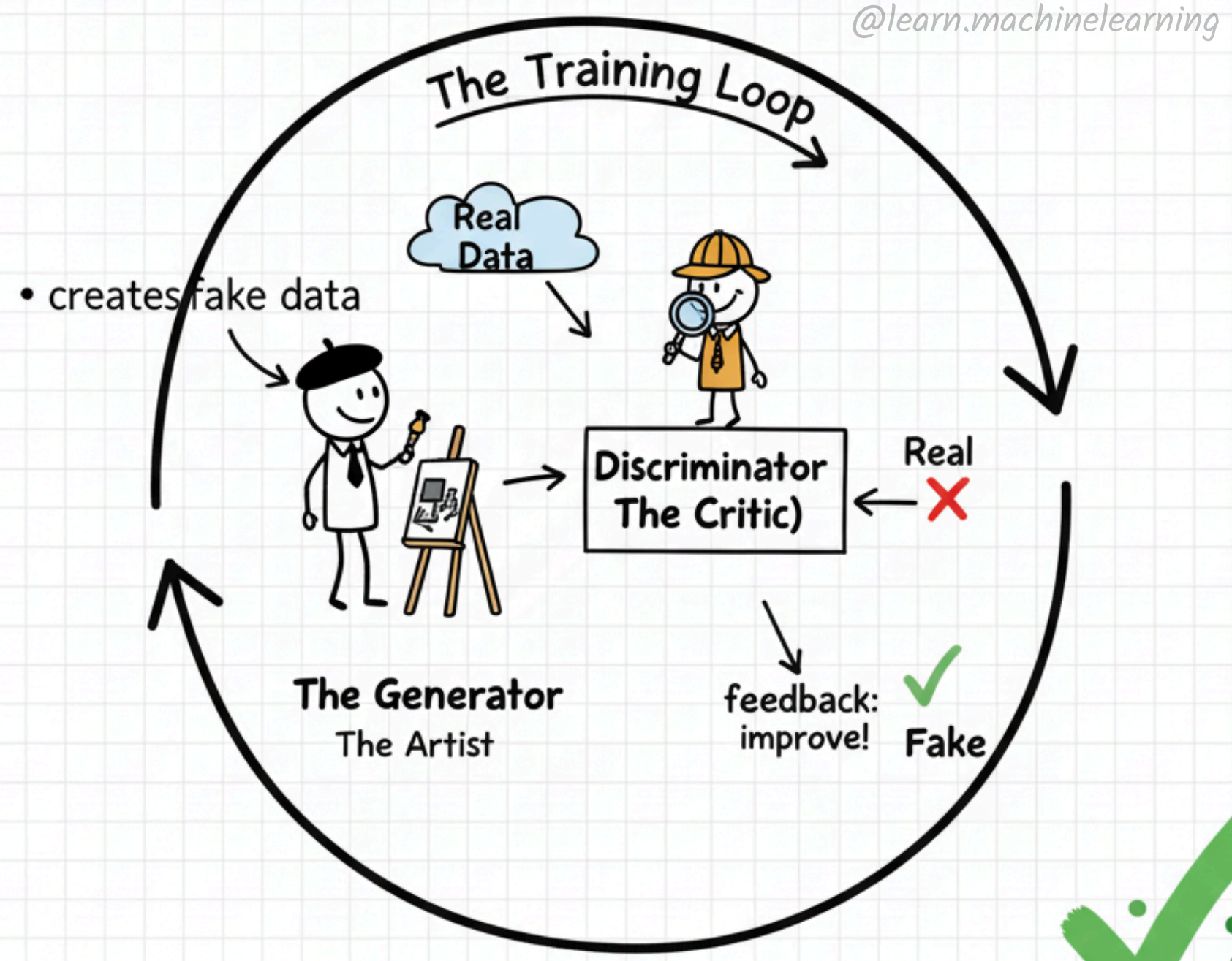
How two AIs compete to create incredibly realistic fakes! 😲



The Dynamic Duo: Generator vs. Discriminator

GANs work with two neural networks in a constant rivaily:

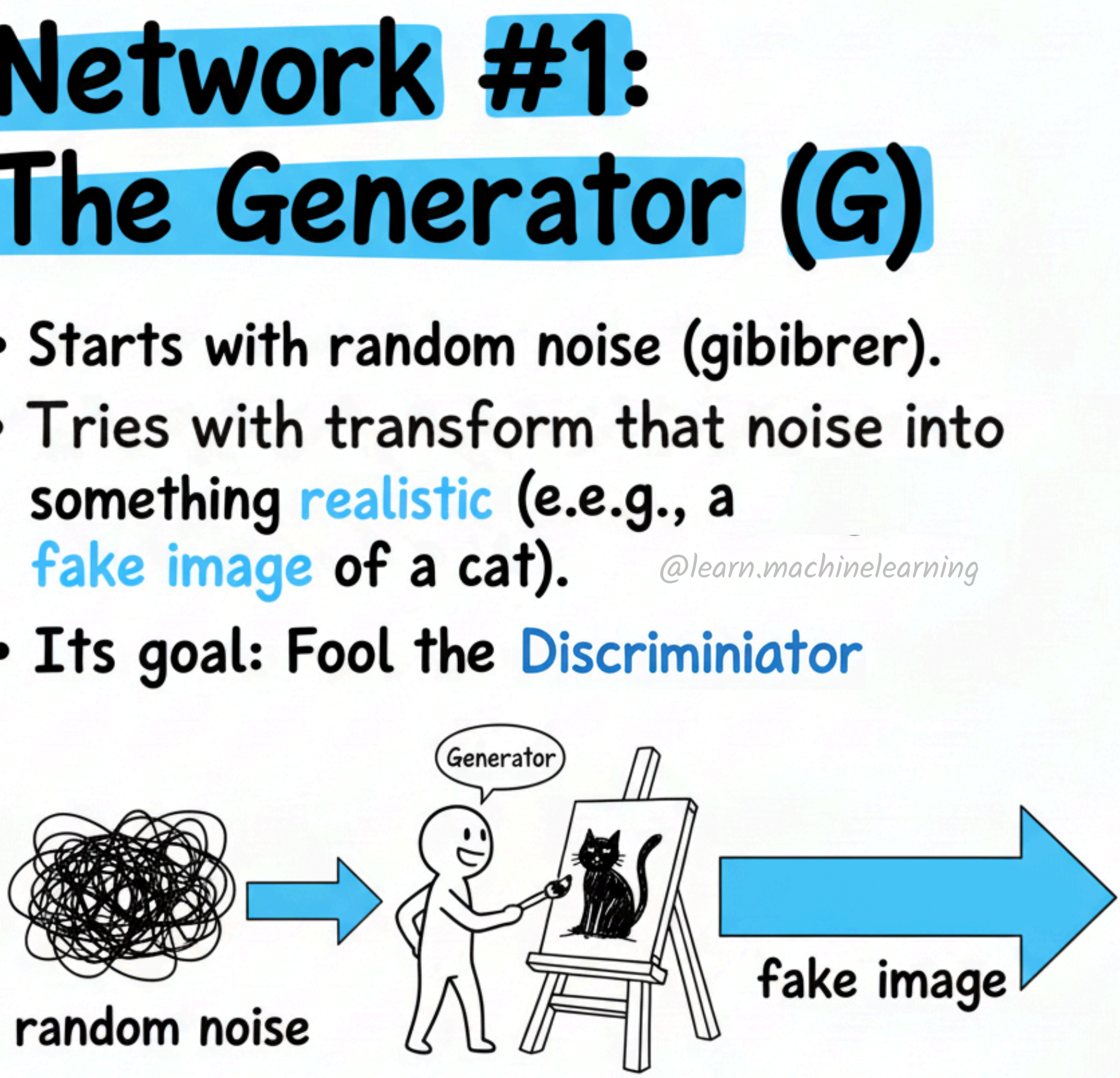
- The Generator (The Artist): Creates new data (e..g). images).
- The Discrirminator (The Critic): Judges if the data is real or fake.



Network #1: The Generator (G)

- Starts with random noise (gibibrer).
- Tries with transform that noise into something realistic (e.e.g., a fake image of a cat).

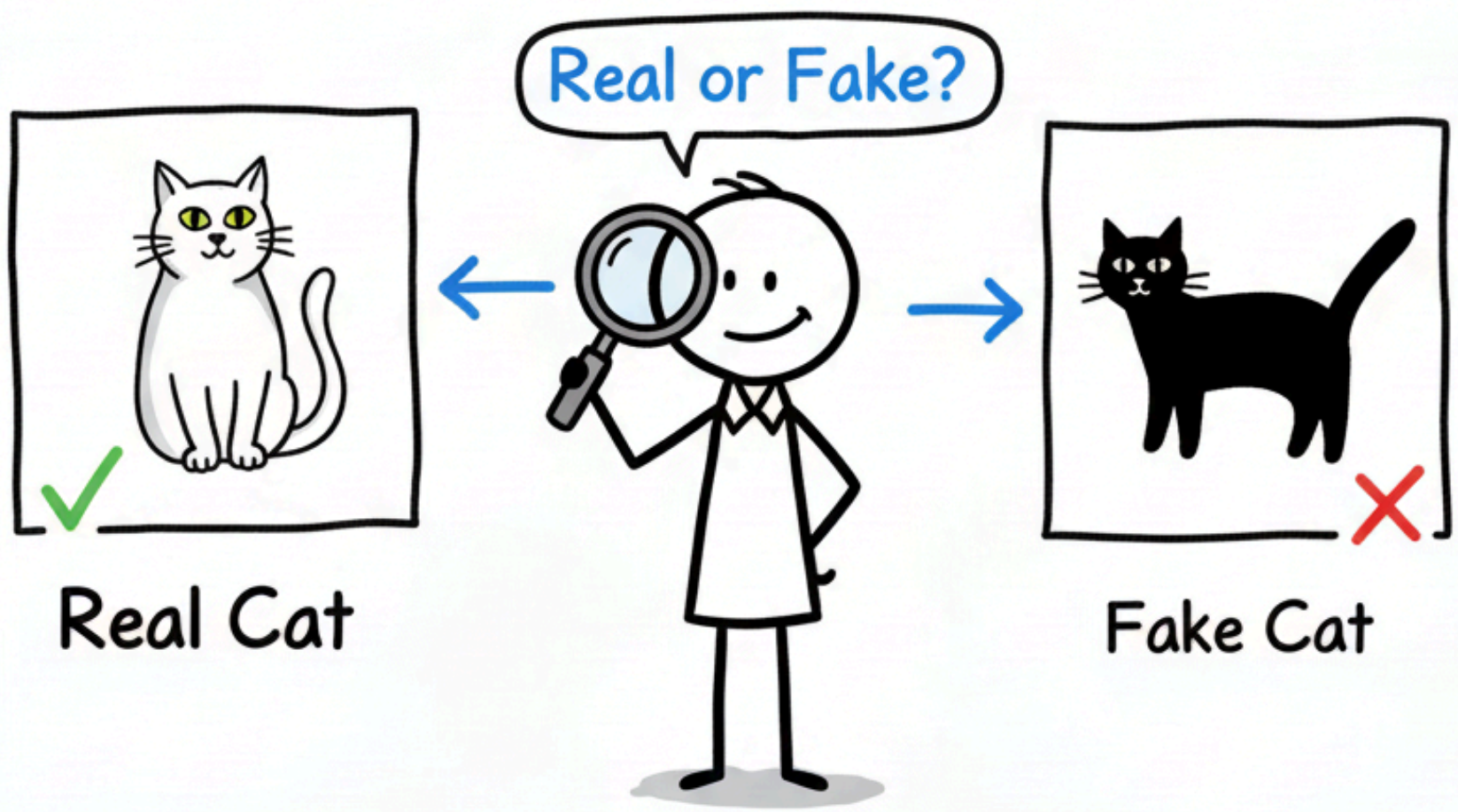
- Its goal: Fool the Discriminiator



Network #2: The Discriminiator (D)

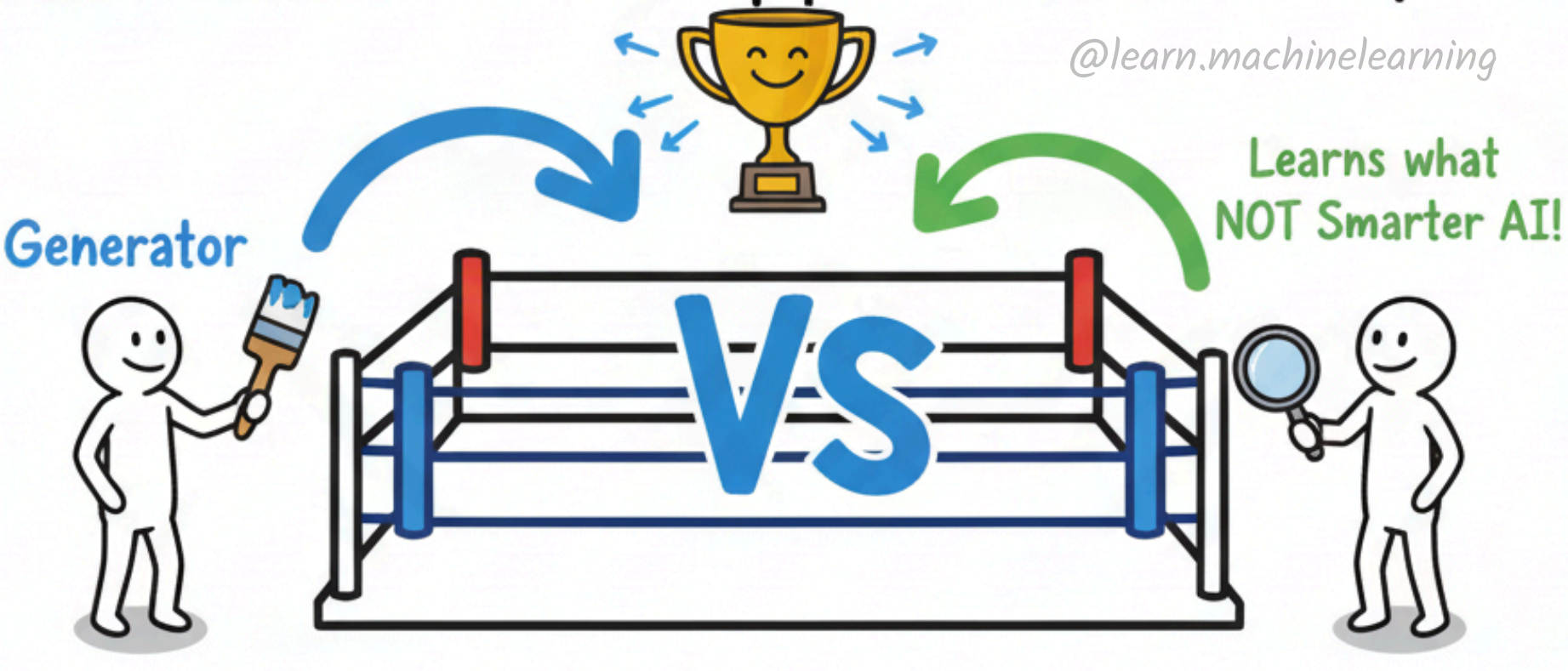
Gets two types of inputs:

- Real data (actual images of cats).
- Fake data (images from the Generator).
- Its goal: Correctly identify if the image is real or fake.

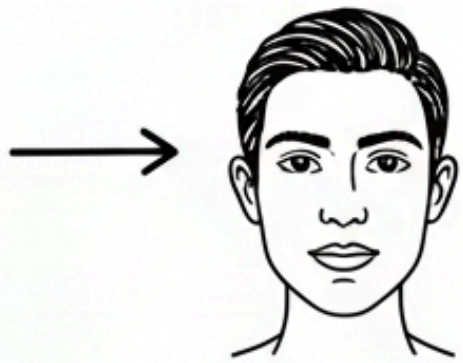
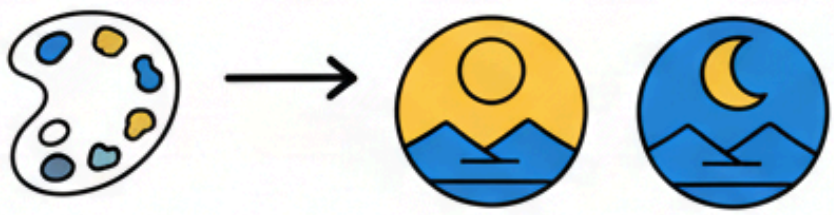


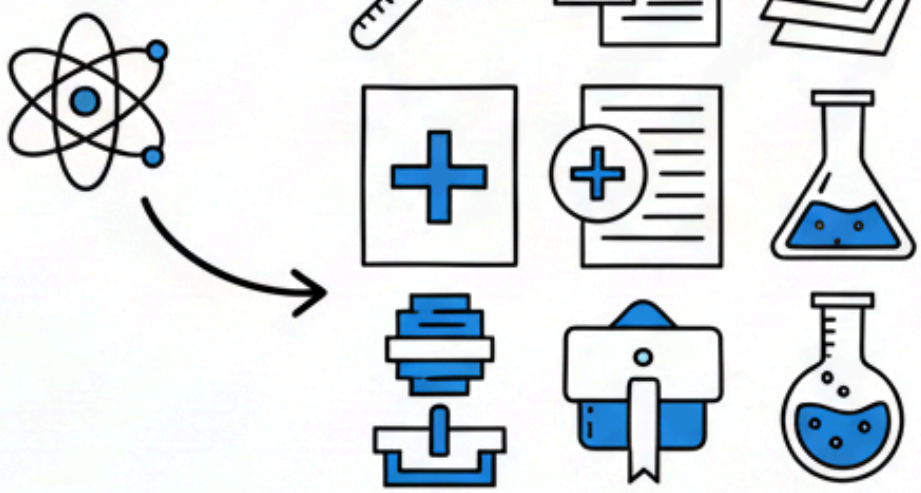
The Epic Showdown: Learning from Feedback!

- Generator makes a fake ⇒ Discrininator tryes to spot it.
- If Discriminator is fooled, Generator gets better!
- If Discririnator is't fooled, it learns what to look for, and Generator also learns what not to do.
- This constant feedback loop pushes both AI to improve!



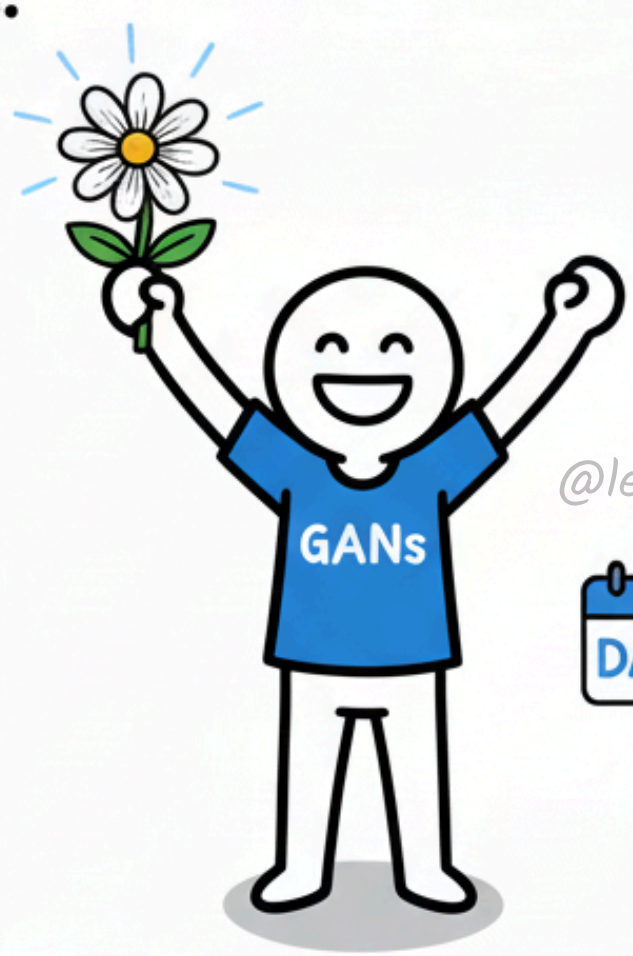
GANs in Action: Beyond "Fake Cats!"

- **Hyper-realistic Images:** 
- **Style Transfer:** 
- **Image-to-Image Translation:** 

- **Data Augmenation** 
- **Drug Discovery** 

Day 3 Takeaway: The Ultimate Creative Rivalrty!

- GANs leverage competition between two AI networks to generate incredibly convicing and novel data, pushing also boundaries of what AI can create.



Next Up: Day 4: Exploring Transformers & Diffusion Models!

What's the most mind-blowing GAN example you sen? Comment below!

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