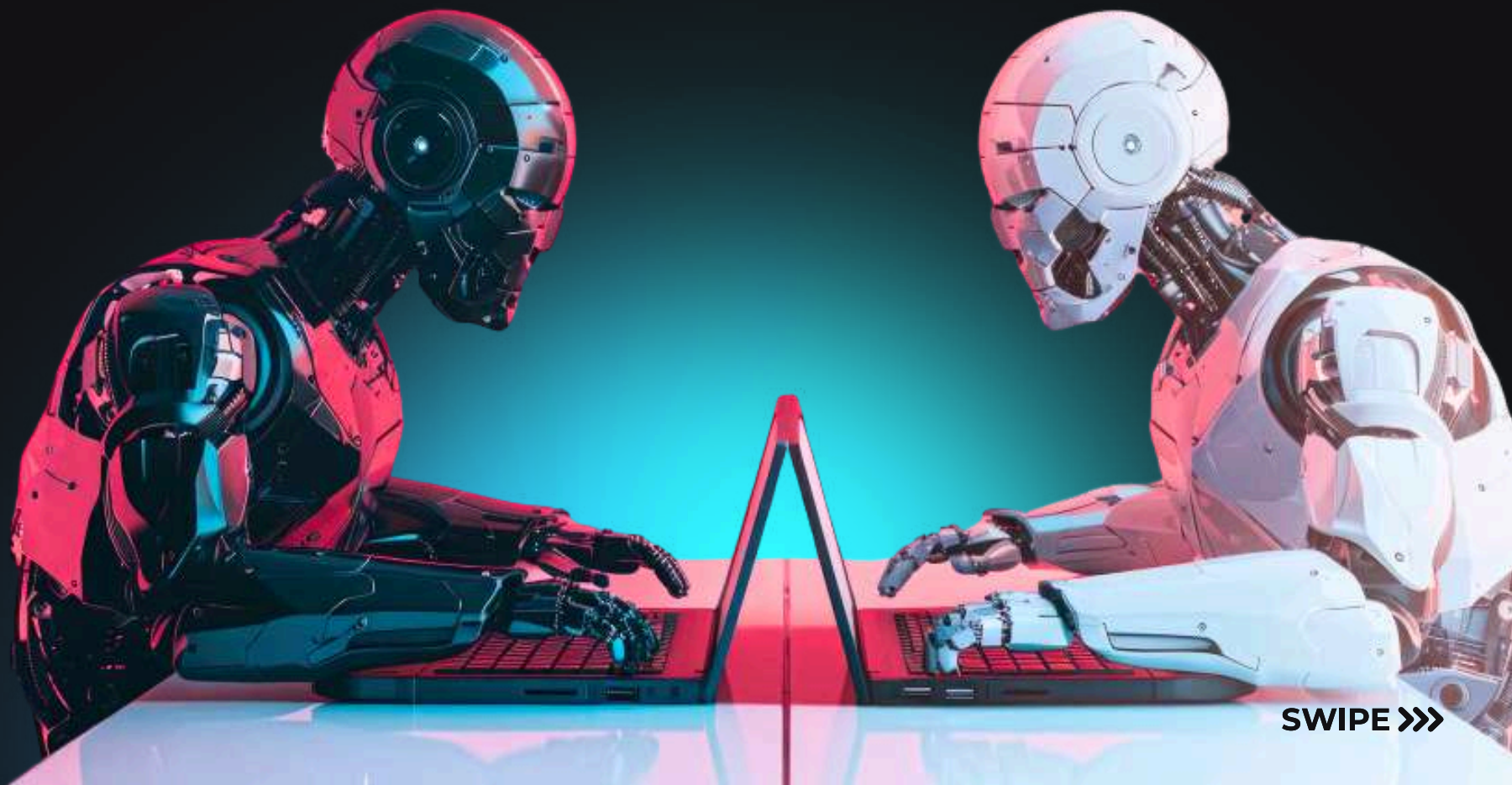


GENERATIVE AI vs PREDICTIVE AI

KEY DIFFERENCES YOU MUST KNOW!



SWIPE >>>

KEY FOCUS

Generative AI

Learns the underlying data distribution to create new, original samples.

Predictive AI

Learns relationships in data to forecast outcomes or classify inputs.



Naveed Sarwar
AI Consultant

TRAINING OBJECTIVE

Generative AI

Minimize differences between generated and real data. Often uses adversarial objectives (e.g., GANs).

Predictive AI

Minimize predictive error on labeled tasks (regression classification, or next step prediction).



Naveed Sarwar
AI Consultant

REPRESENTATIVE METHODS

Generative AI

GANs, VAEs, DCGAN

Predictive AI

RNN-based language models,
Transformers,
(regression/classification models)



Naveed Sarwar
AI Consultant

SWIPE >>>

OUTPUTS

Generative AI

Synthetic images, audio, or text that are novel yet consistent with the training data.

Predictive AI

Predicted labels or values (e.g., next word, class label, forecast).



Naveed Sarwar
AI Consultant

SWIPE >>>

APPLICATIONS

Generative AI

Art generation, style transfer,
synthetic data creation, drug
discovery (molecule generation)

Predictive AI

Sentiment analysis, stock price
prediction, medical diagnosis,
language translation and
reccomendation systems



Naveed Sarwar
AI Consultant

CHALLENGES

Generative AI

Mode collapse, instability, evaluation difficulties of generated samples.

Predictive AI

Data imbalance, overfitting, interpretability challenges for large scale predictive models.



Naveed Sarwar
AI Consultant

YOUR AI TOOLKIT JUST GOT SMARTER!

WHICH AI ARE YOU
EXPLORING RIGHT NOW?



FOLLOW ME

Naveed Sarwar

