

## MACHINE LEARNING

### PROS



#### Low operational costs

Computationally less expensive, requires cheaper hardware.



#### High accuracy

When trained properly with the right data, can produce highly accurate, reliable predictions.



#### Interpretability

Methods are available to understand “why” a model gave a certain output.



#### Established use cases

Big data, video analysis, etc., have been handled for years with ML.



#### Field maturity

More established tools, workflows, frameworks, research, etc. are available.



### CONS



#### Data dependency

Any effective Machine Learning model requires substantial amounts of labelled data.



#### Lack of reusability

If a model is trained to classify emails, it cannot be applied to detect sentiment, etc.



#### Constant maintenance

Models need retraining if business landscape changes. For e.g., when a retail enterprise buys an outdoor clothing business, existing ML models related to their customers will likely begin to perform poorly.



#### Domain expertise

Need experts in specific domains, like NLP, computer vision, etc. which can be expensive

## GENERATIVE AI

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### PROS



#### **Requires little data**

Large Language Models (LLMs) can achieve meaningful outputs with smaller datasets.



#### **Lower time to market**

Without the need for extensive datasets, you can deploy your product or solution sooner.



#### **Adaptability**

Models can be adapted for different tasks by adjusting prompts, offering flexibility without retraining.



#### **Flexibility**

One model can serve various tasks across business functions. For e.g., applicant tracking, chatbot, etc.



#### **Content Generation**

When well prompted, an LLM can create new human readable content for a business to use.



### CONS



#### **Expensive**

While APIs can be economical to begin with, fine-tuning and pretraining LLMs can be costly.



#### **Lack of explainability**

Gen AI models struggle to explain the “why” behind specific outputs, leading to transparency challenges.



#### **Murky intellectual property**

Issues surrounding ownership of generated content can be complex, requiring careful legal consideration.



#### **Lack of quality control**

It's challenging to ensure model responses are appropriate.



#### **Data privacy concerns**

Using public LLMs may pose risks to data privacy, and public trust has lot of room to improve.