CHAPTER 02 / MAKE THE DISTINCTION

Learn. Recognize. Create.

Three labels. Different questions.

Choose by the outcome you need.

PREDICT

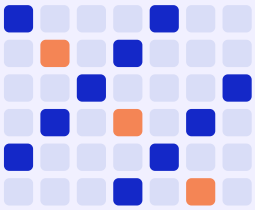
Demand next week



ML can fit a forecast.

RECOGNIZE

A defect in a photo



DEFECT DETECTED

Deep learning can classify.

GENERATE

A reply to a customer

Thanks for the photo. We can replace the damaged part.

REVIEW BEFORE USE

A generator creates content.

Choose the task first. These are not three mutually exclusive model types.

Deep learning is a machine-learning method. Generation is an output task; the labels can apply together.

Machine learning

Fits patterns from examples. Often useful for prediction and classification using structured data.

Deep learning

Uses neural networks with multiple layers to learn representations. Can predict, classify, or generate.

Generative AI

Produces new content such as text, images, or audio. Evaluate its correctness, usefulness, and constraints.

↗ **A polished generation is not a substitute for an accurate prediction.**

PUT IT TO WORK

For a support desk: predict ticket volume, recognize a damaged part in a photo, or draft a response. Define the outcome before choosing a model.

CLOSE THE PAGE. EXPLAIN IT.

Is your problem asking for a score, a label, or new content? How will you check it?