



Data  
Schools

# Module 3: Introduction to Machine Learning

## Machine Learning Application Development Approach

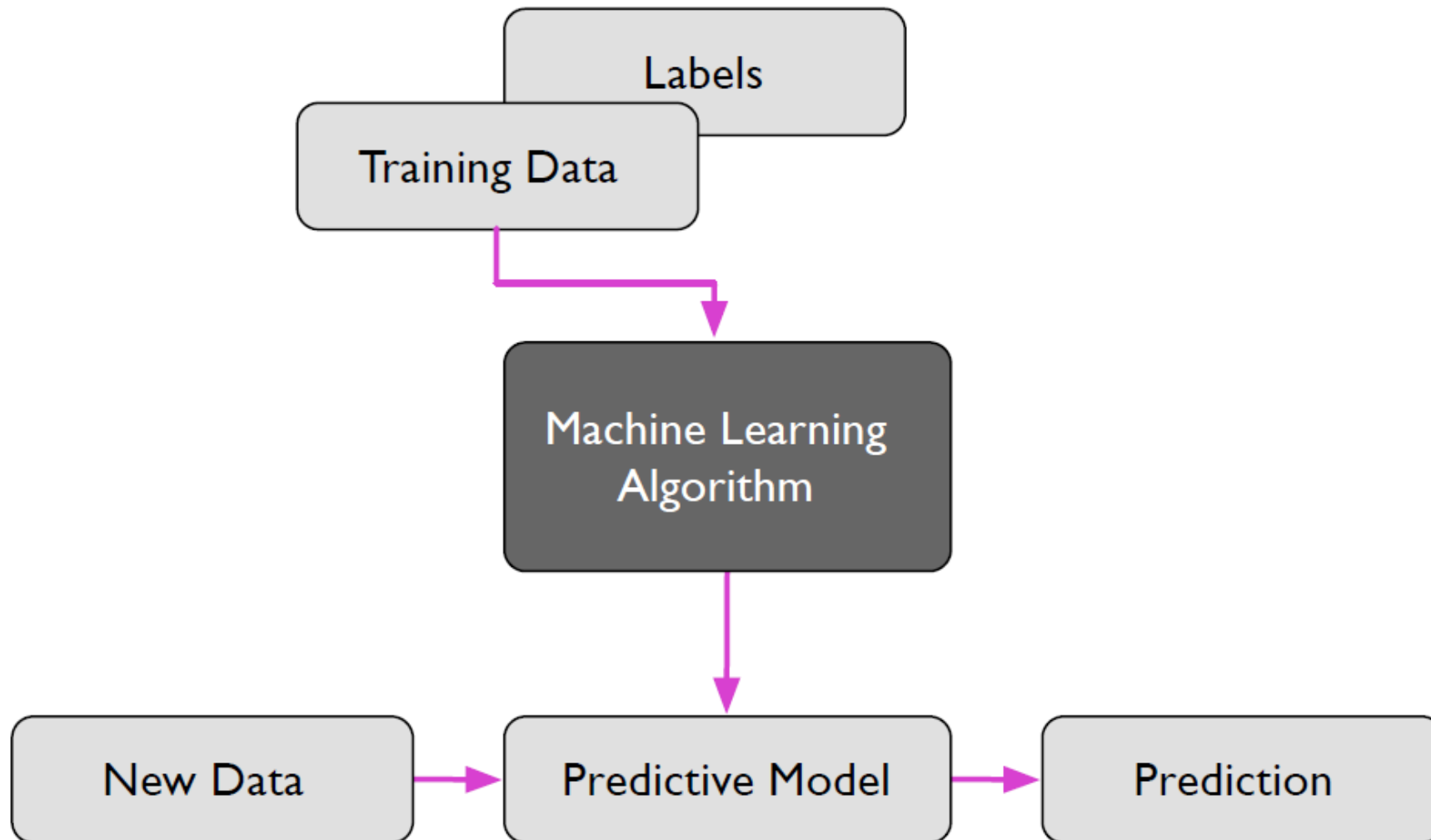
# Modules for this topic

1. Overview: What is Machine learning
2. Categories of Machine Learning
3. Machine Learning Application Development Approach
4. *Building Classification Model*
5. Recommender Systems
6. *Building a Recommender Engine*

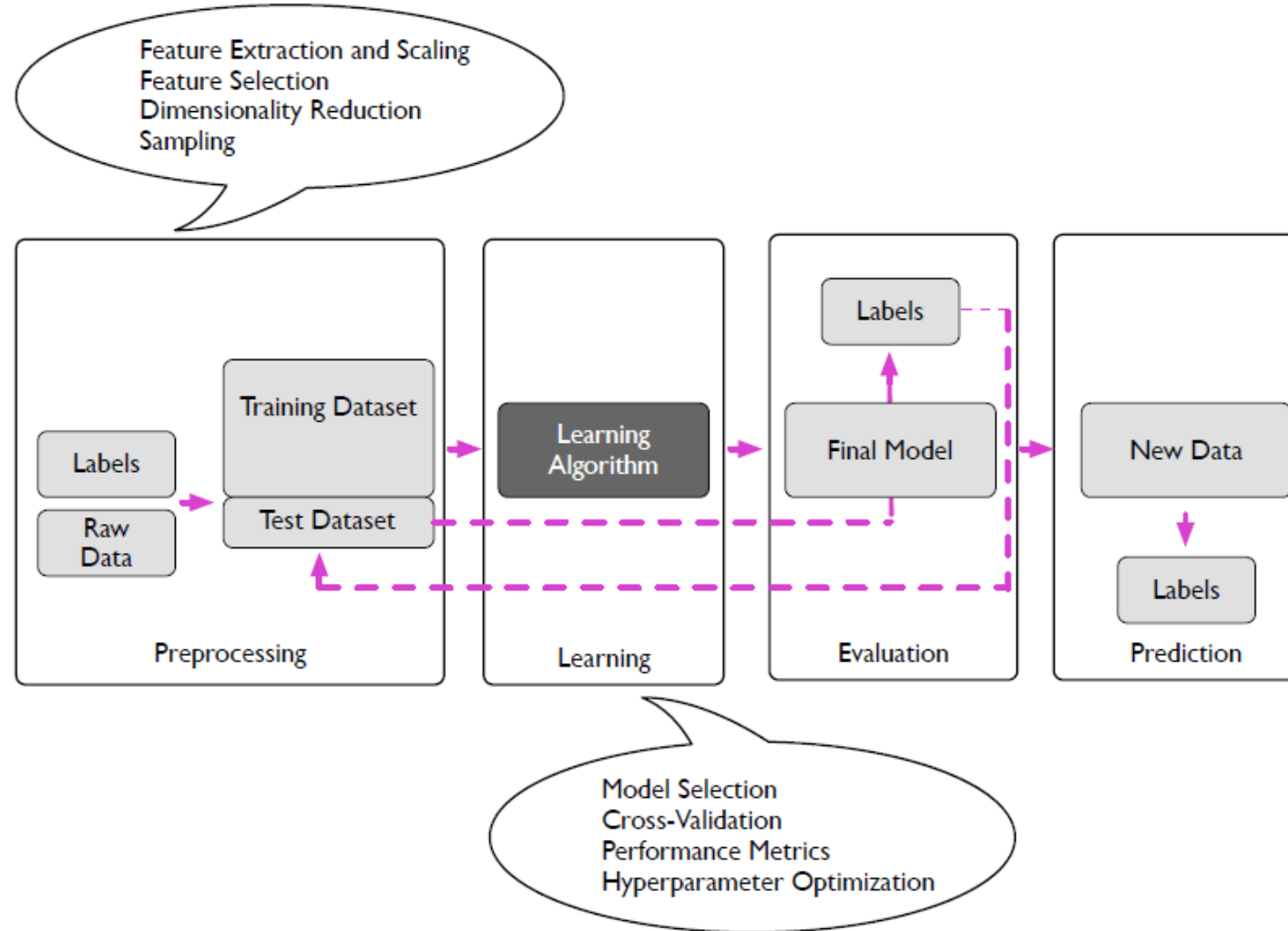
# Module 3

Machine Learning Application Design Approach

# Supervised Learning Workflow



# Supervised Learning Process



# Supervised Learning Process

## Example steps for ML Application Design

1. Define the problem to be solved.
2. Collect (labeled) data.
3. Prepare the data.
4. Choose an algorithm class.
5. Train the model.
6. Choose a metric or measure for evaluating the model.
7. Tune parameters
8. Prediction or inference

# Exercise

Building classification models is one of the most important data science use cases. Classification models are models that predict a categorical label. A few examples of this include predicting whether a customer will churn or whether a bank loan will default. In this guide, you will learn how to build and evaluate a classification model in R. We will train the logistic regression algorithm, which is one of the oldest yet most powerful classification algorithms.

# Summary

- We now have some basic understanding of the process to build an ML application.