

Review: Transfer Learning

Transfer Learning is the art of

- adapting an existing, pre-trained model
- to solve a new task

We begin by reviewing "traditional" Transfer Learning.

The new paradigm of *Unsupervised Pre-training + Supervised Fine-Tuning*

- is a more recent extension of the concept
- which we will subsequently learn about

Transfer learning: concept

[Transfer Learning \(Transfer_Learning.ipynb\)](#)

Transfer learning: code

- [Transfer Learning example from github](https://colab.research.google.com/github/kenperry-public/ML_Spring_2024/blob/master/TransferLearning_demo.ipynb)
(https://colab.research.google.com/github/kenperry-public/ML_Spring_2024/blob/master/TransferLearning_demo.ipynb) (Colab)
 - [Transfer Learning example from github](#) ([TransferLearning_demo.ipynb](#))
(local machine)
 - [Utility notebook](#) ([Dogs_and_Cats_reformat.ipynb](#))
 - Takes the *very large* raw data (from Kaggle) used in the Transfer Learning example
 - Creates a much smaller subset, using a different directory structure
 - The above notebook uses this reorganized, smaller subset

