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_Advanced_Fall_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

In [2]:
```
print("Done")
```

```
Done
```