

Domain Adaptation for Image Classification

1. Office-Home dataset is a domain adaptation dataset, which consists of 65 categories of office depot from four domains (i.e., **A: Art, C:Clipart, P:Product, R: Real-world**). The raw images can be downloaded from <http://hemanthdv.org/OfficeHome-Dataset/>.
The 2048-dim ResNet50 deep learning features of all images can be downloaded from <https://pan.baidu.com/s/1qvcWJCXVG8JkZnoM4BVoGg>.
2. Conduct experiments in the following two settings (source domain -> target domain):
a) A->R; b) C->R;
In X->Y setting, use the deep learning features X_X.csv as source domain features and X_Y.csv as target domain features.
3. Select **2 unsupervised traditional domain adaptation methods (e.g., KMM, DIP)**. For the code of some domain adaptation methods, you can download from <https://github.com/jindongwang/transferlearning/tree/master/code/traditional>.
Use SVM classifier based on deep learning features and observe the performance gain brought by domain adaptation methods.
4. Summarize your experimental results and write a project report in English. The project report should contain experimental setting, the domain adaptation methods you tried, the experimental results you obtained, and the experimental observations based on your experimental results.