

## TPA 6: Video Concept Detection across Domains

**Problem Statement:** Domains can be broadly defined as data coming from different sources. Similar concept videos coming from two different sources (say consumer videos and Youtube videos) will have significant difference in visual features. This project is aiming at creating concept classifiers across domains wherein we have labeled videos from a certain source domain and very few labeled videos for target domain. The classifier built should improve the classification on the unlabeled target domain set.

### Input:

- A collection of video shots labeled with different concepts e.g. wedding, party, picnic, etc from source domain and few shots from target domain.

### Expected Output:

- Labels for the unlabeled target domain video shots.

### References

1. L. Duan et. al, Visual Event Recognition in Videos by Learning from Web Data, CVPR 2010
2. J. Yang et. al, Cross-Domain Video Concept Detection Using Adaptive SVMs, ACM Multimedia 2007.
3. L. Duan et. al, Domain Transfer Multiple Kernel Learning, PAMI 2012.
4. N. FarajiDavar et. al, Domain Adaptation in the Context of Sport Video Action Recognition, NIPS 2011.
5. J. Donahue et. al, Semi-Supervised Domain Adaptation with Instance Constraints, CVPR 2013
6. Kodak's consumer video benchmark data set: Concept definition and annotation, MIR 2007.