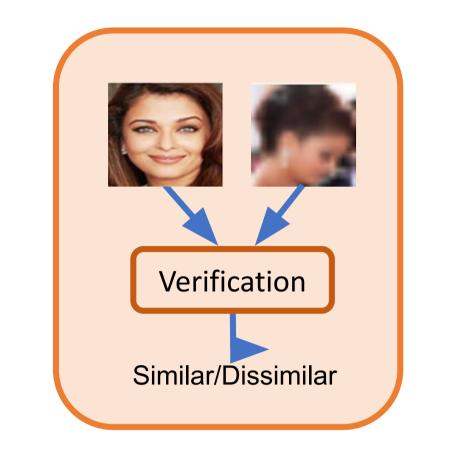
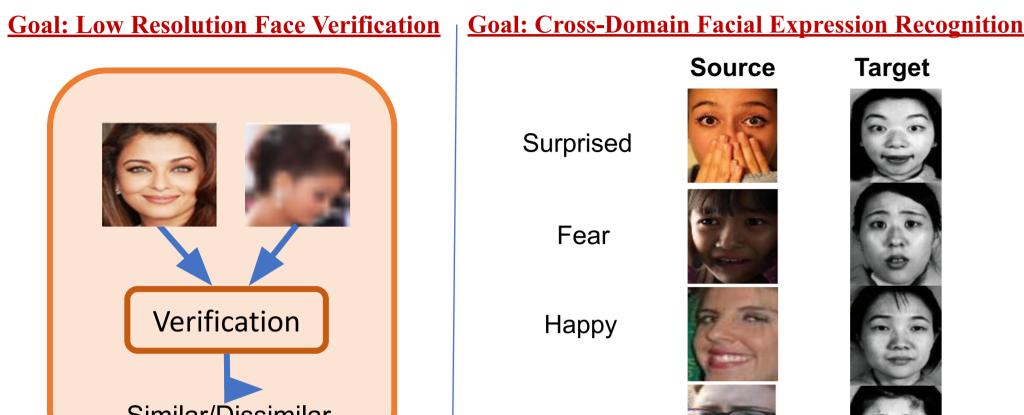


Image Analysis and Computer Vision Laboratory

Faculty: Prof. Soma Biswas Room No. C-314 Department of Electrical Engineering Indian Institute of Science, Bangalore

Face and Expression Recognition





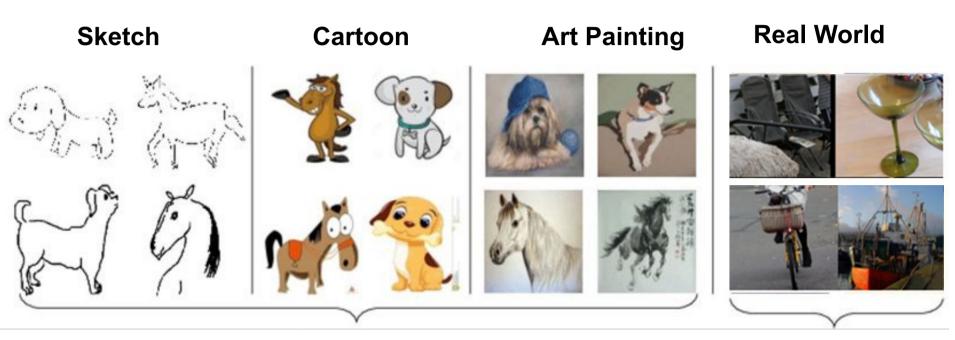
About us...

We work on a variety of exciting Computer Vision problems like

- Cross-Domain or Cross-Modal Matching and retrieval
- Domain Adaptation and Domain Generalization
- Novelty Detection and Zero-Shot Learning
- Class-Incremental Learning
- Test-Time Adaptation

Zero-Shot Domain Generalization

Goal: Classify unseen classes from unseen domains

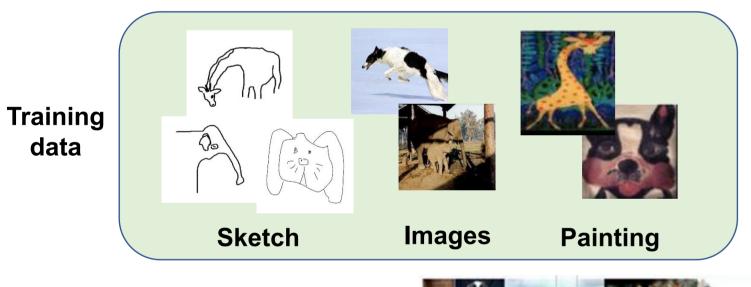


Training Set Test Set

Universal Cross-Domain Retrieval

Sad

Goal: Query and Search images can contain seen/unseen classes





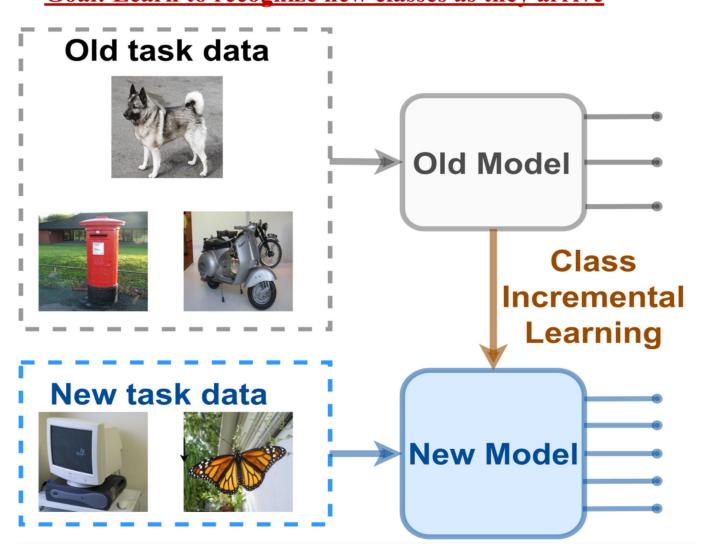
Query: category: Horse domain: cartoon



Search Set Images

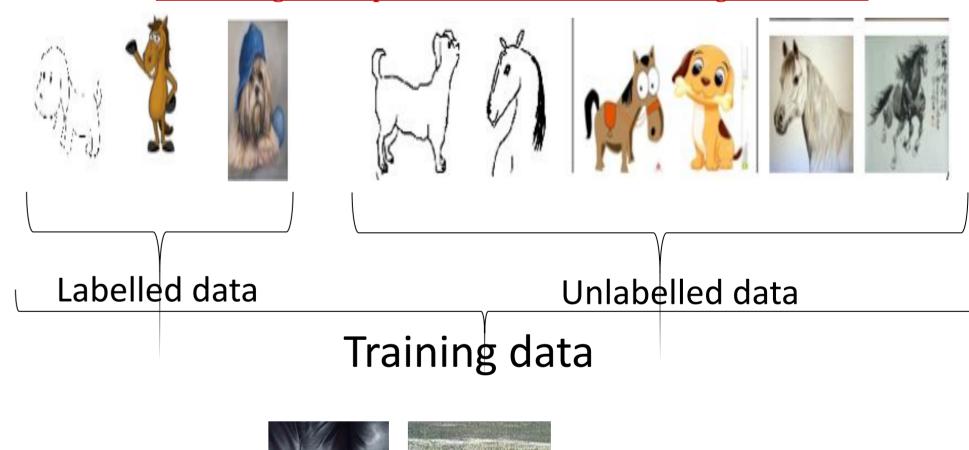
Class-Incremental Learning

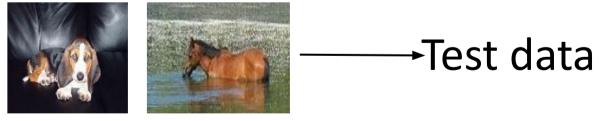
Goal: Learn to recognize new classes as they arrive



Semi-Supervised Domain Generalization

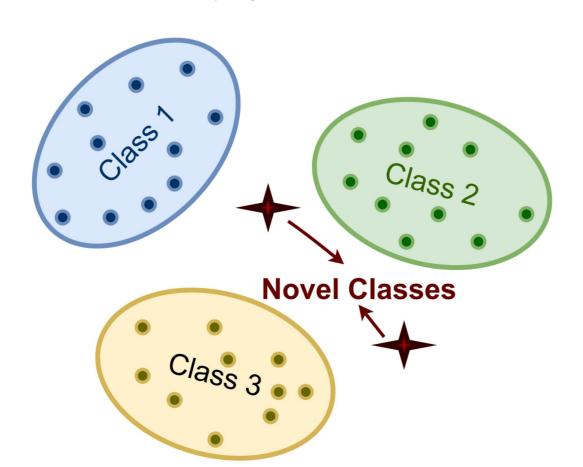
Goal: Using semi-supervised multi domain data for generalization





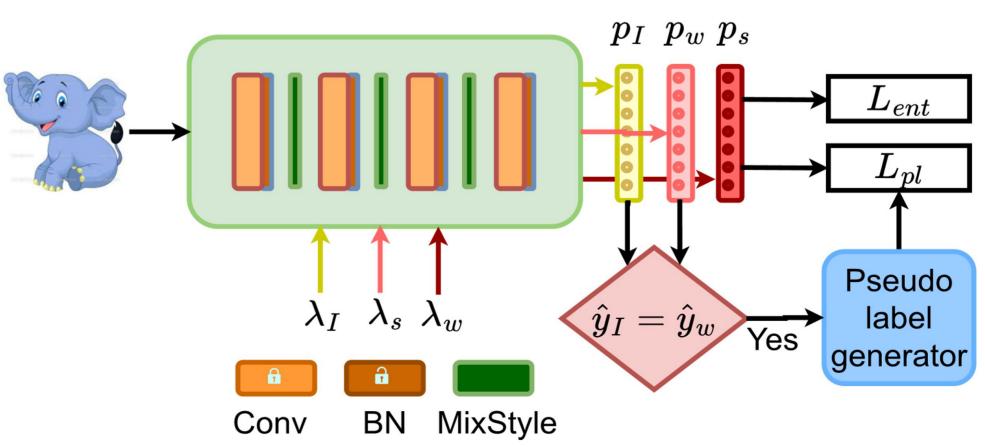
Novelty Detection

Goal: Identifying novel classes at test time



Test-Time Adaptation

Goal: Model adaptation using online test data



Few-Shot Class-Incremental Learning

Goal: Learning new classes with few number of samples

