Co-Clustering to Reveal Salient Facial Features for Expression Recognition

- **Proposal** Use co-clustering to select features that can be used to classify facial expressions
- **Method**
  - Use Gabor filter to extract features from facial images
  - Use co-clustering to attain a subset of features and samples
  - Find the probability that a co-cluster is related to a certain class
  - Features with high probability are selected

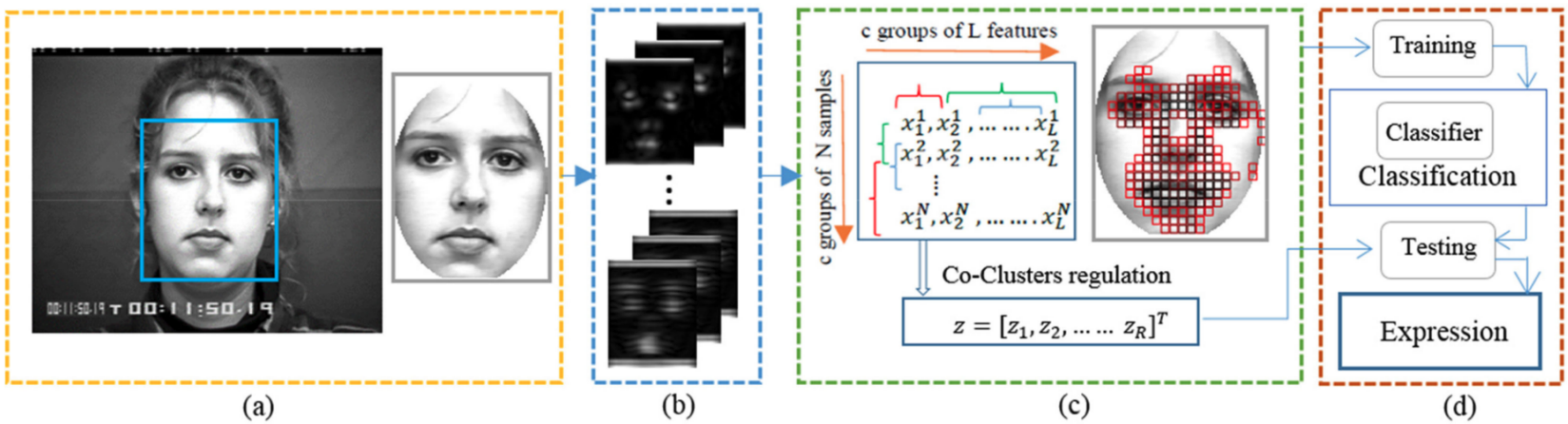

Figure: Khan et al. 2017

My Proposal

- Word-embedding or n-gram to extract features from text
- (Maybe) Generate more features from the results above
- Use co-clustering to attain a subset of features and samples
- Select features that are related to a certain class most

Best Paper of ICML 2017

- **Title** Understanding Black-box Predictions via Influence Functions
- **Authors** Pang Wei Koh, Percy Liang
- **Introduction** This paper uses influence function to measure the importance of each training sample and feature.