

# The Major Changes

We present a novel method for learning a graphical model with minimal supervision with applications to segmenting and classifying visual objects. A short early version of this work was presented in CVPR08, but there was no space to clearly explain our approach in detail or to present all our results. In the current journal submission, we make the following changes.

1. A detailed justification about the motivation (Section I).
2. Formulate the “LEARNING BY KNOWLEDGE PROPAGATION” in a mathematical way. (Section II)
3. Plot the graphical model of POMs, the Bayes net for joining POM-IP to POM-mask and the terminology table. (Figures 2,3 and Table 1.)
4. We provide the theoretical formulation of POMs and give more details. (Sections IV and V).
5. Add a detailed formulation for POM-mask. (Section V.A and V.B)
6. theoretical formulation and more details about POM-mask learning and inference. (Section V.B)
7. More results on 14-class classification and segmentation. (Sections VII.B, C, D. Tables III and IV)