Summary

- **Top-5 accuracy is improved**
  - 1st place 82.54% (79.25% in 2018)

- **Text/meta-data is the new focus**
  - Bert model
  - Semantic relation based on WordNet

- **Other issues**
  - Label noise
  - Class imbalance
  - Model ensemble
  - Long-tail distribution
Open Questions

- **Definition of classes**
  - What classes are representative?

- **Number of classes**
  - Are 5,000 classes enough or too many?

- **Larger scale**
  - Shall we increase the dataset size?

- **More tasks**
  - Webly supervised semantic segmentation / object detection
  - Domain adaptation / transfer learning
  - Video recognition
Thank you!