NCAI Internship

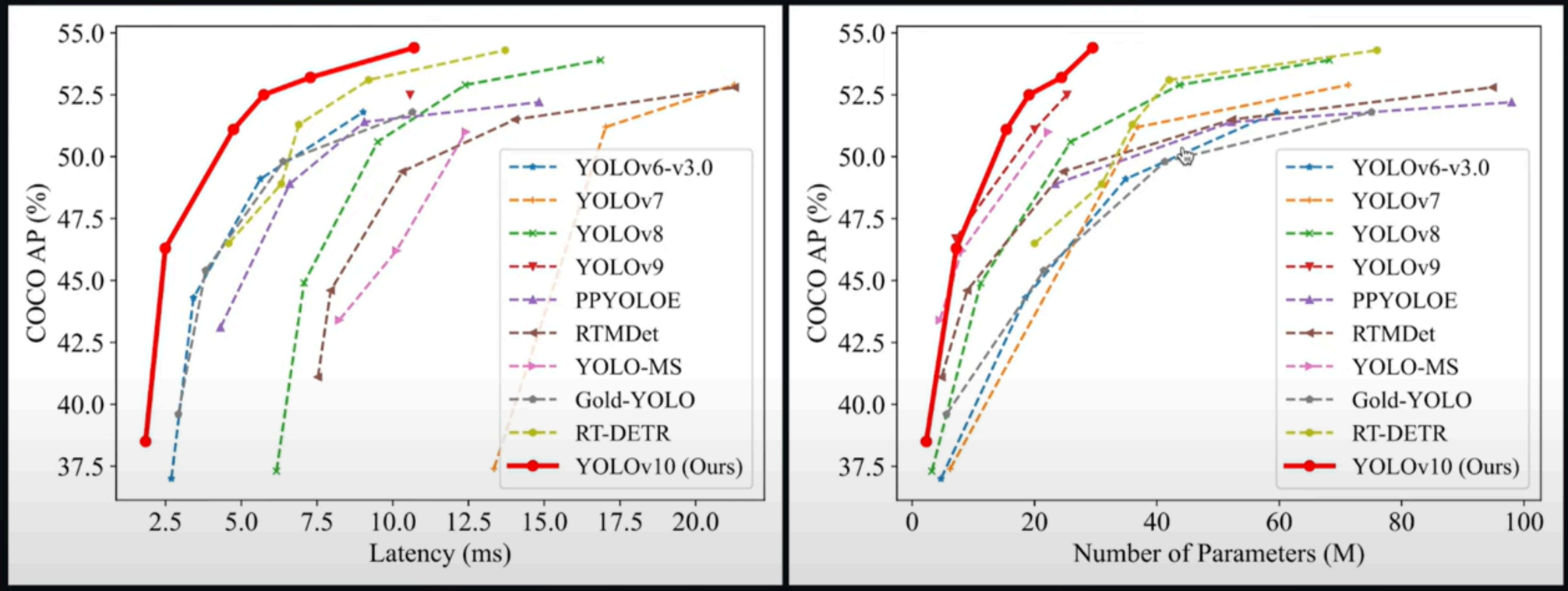
Yolo Comparison

Muhammad Hanzalah

Yolo V8 & Yolo V10

- Latency less/ prediction speeed higher
- Number of paramters less

Official PyTorch implementation of **YOLOv10**.



Comparisons with others in terms of latency-accuracy (left) and size-accuracy (right) trade-offs.

V10 Architechtural Differences

- Removed Non maximal Supression in preprocessing. (multiple overlapping bounding box an then removal)
- Classification head more lightweight

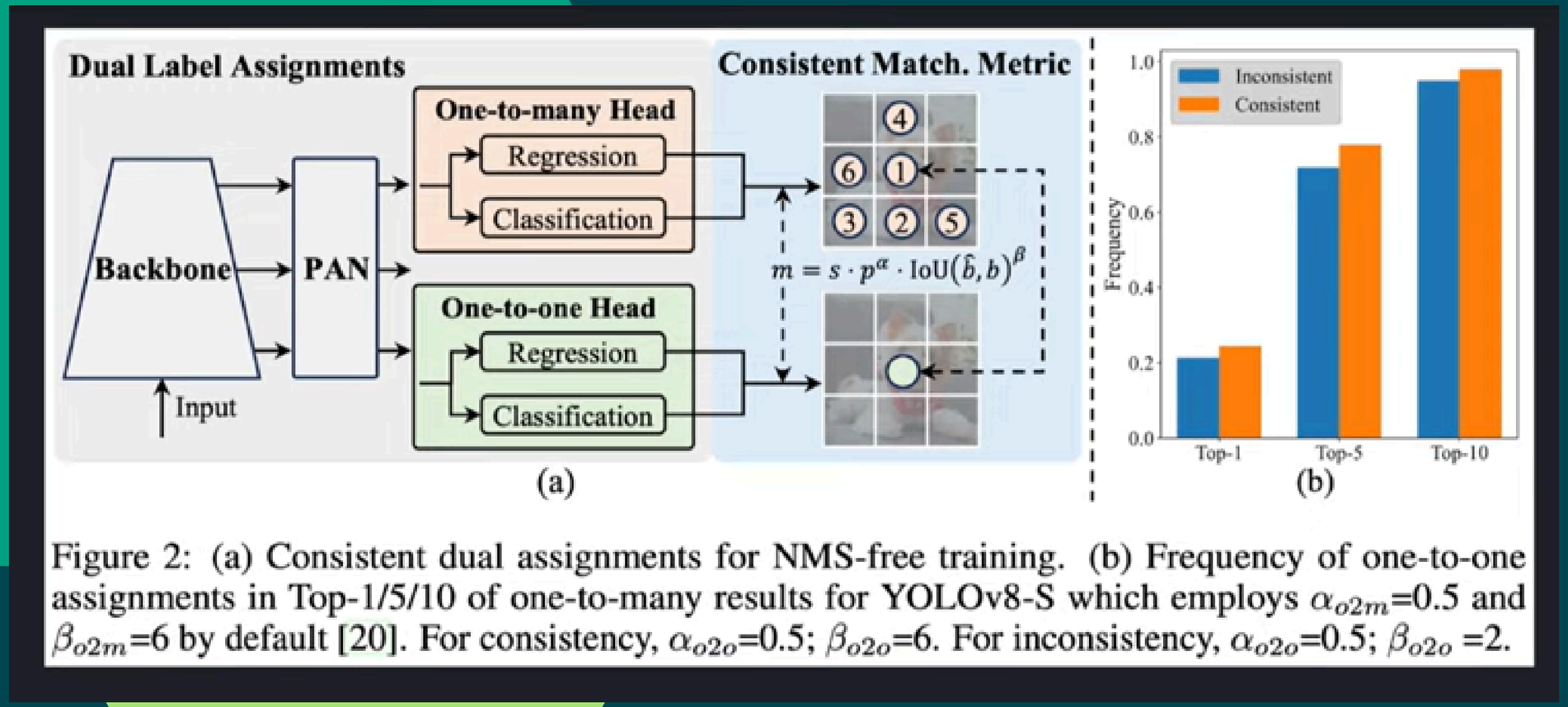


Figure 2: (a) Consistent dual assignments for NMS-free training. (b) Frequency of one-to-one assignments in Top-1/5/10 of one-to-many results for YOLOv8-S which employs α_{o2m}=0.5 and β_{o2m}=6 by default [20]. For consistency, α_{o2o}=0.5; β_{o2o}=6. For inconsistency, α_{o2o}=0.5; β_{o2o} =2.

Better in real world senario?

Yolo V8 better at detecting smaller objects compared to v8. But takes some accuracy hits.

Yolo V9 recommended for sweet spot. but also depends on the kind of data we have.

These tests were on coco dataset

Back to Agenda Page