



# Learning from Web Data with Self-Organizing Memory Module

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## Learning From Web Data



- Web-crawled images usually have two types of noises, label noise and background noise.



**Label noise**



**Background noise**

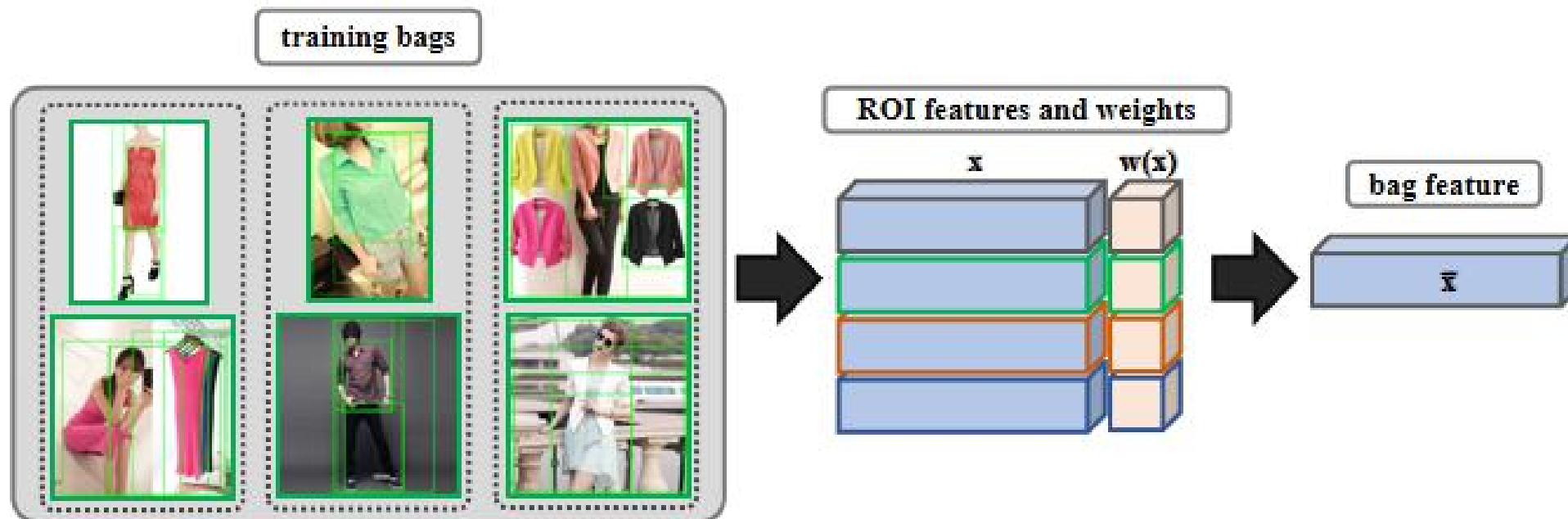
Figure 1. Two web images crawled with keyword “dog”. **Left:** Dog food; **Right:** A kid and a dog on the grassland.



## Multi-Instance Learning



- We group images and their region proposals from the same category into bags.
- We use the weighted features as the bag-level feature for prediction.



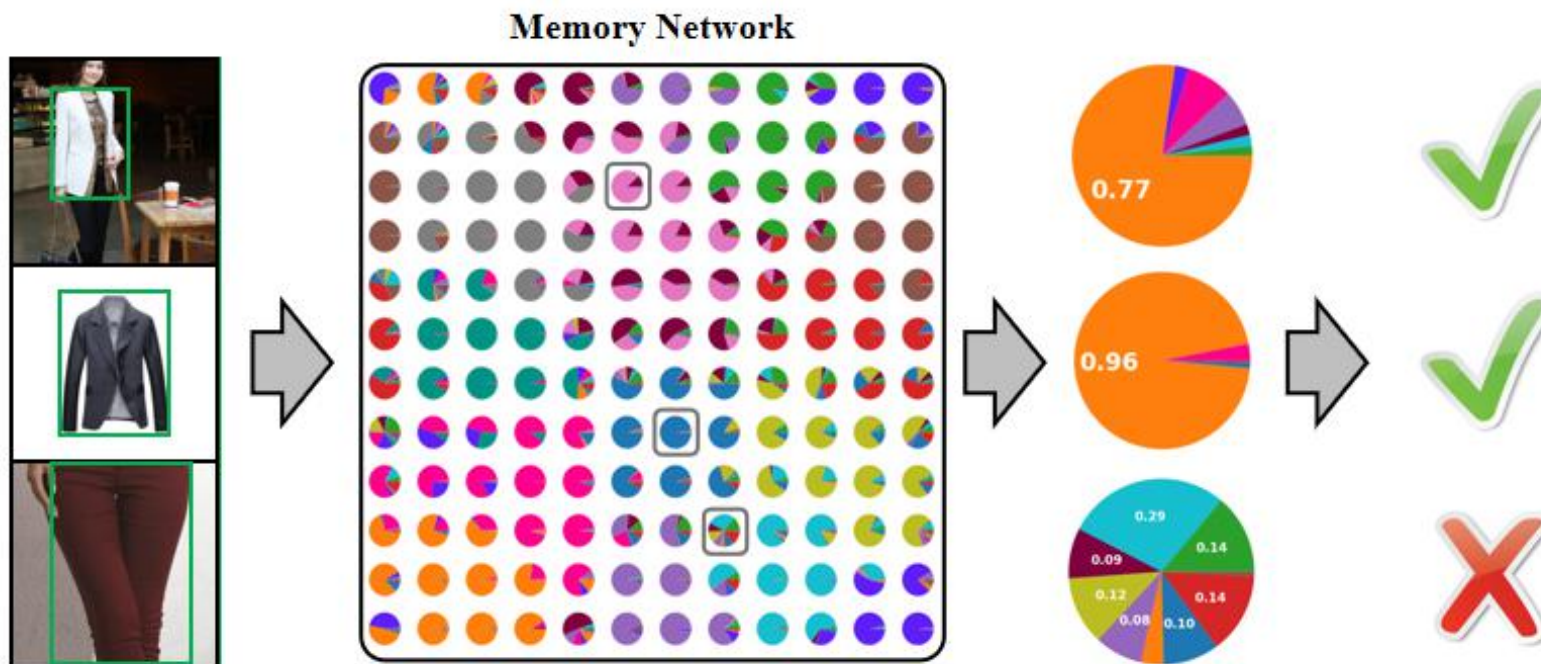




## Self-Organizing Memory Module



- We use the memory module to capture the clustering center of each category.
- We feed the instances into the memory module to update their weights.



# Thanks for watching!

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