Universität Hamburg
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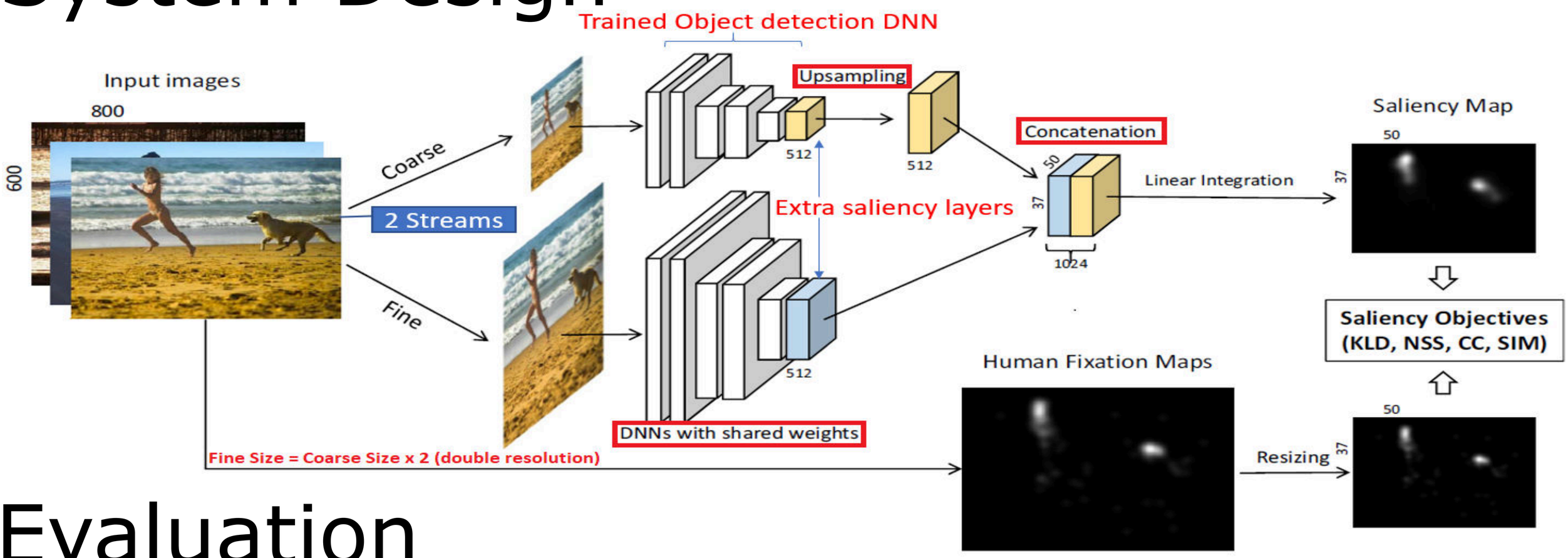
Reducing the Semantic Gap in Saliency Prediction by Adapting Deep Neural Networks

Motivation

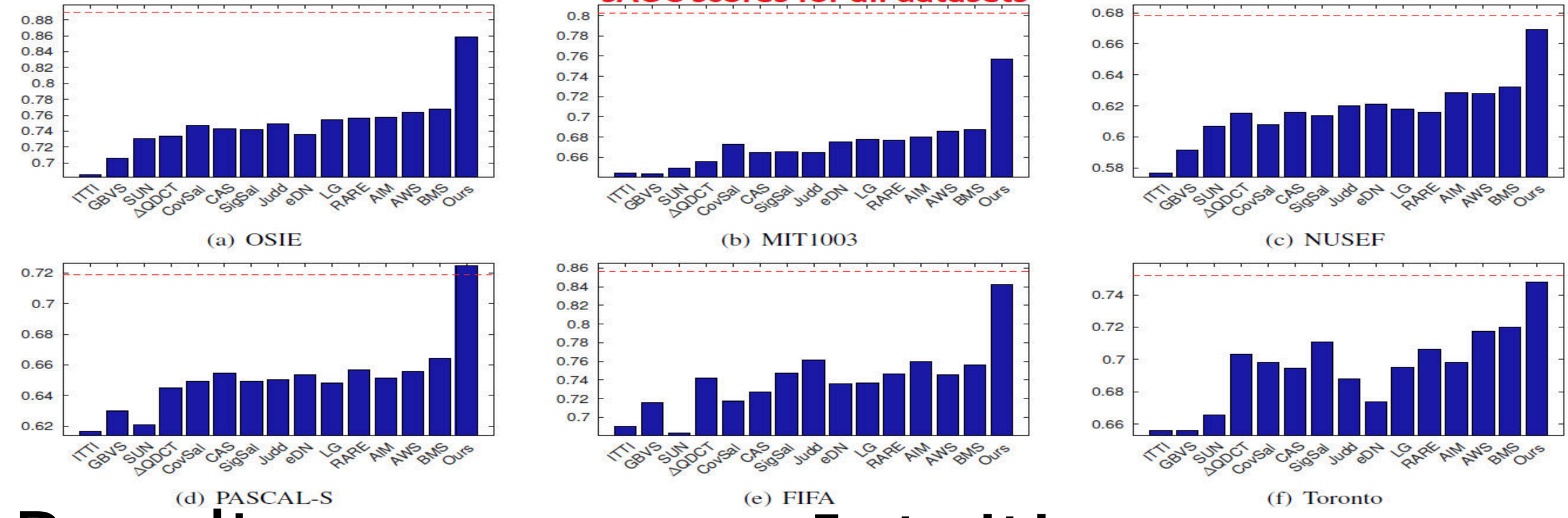
- Conventional saliency models rely on image statistics to predict human fixations
- They perform well unless images have a strong semantic content (i.e. meaning)
- New approach tries to fine tune Object Recognition DNNs
- Object Recognition DNNs are inherently very good at extracting meaning from images
- Another key component is to integrate information at different image scales
- The new approach surpasses all state of the art methods on all datasets and metrics

System Design



Evaluation

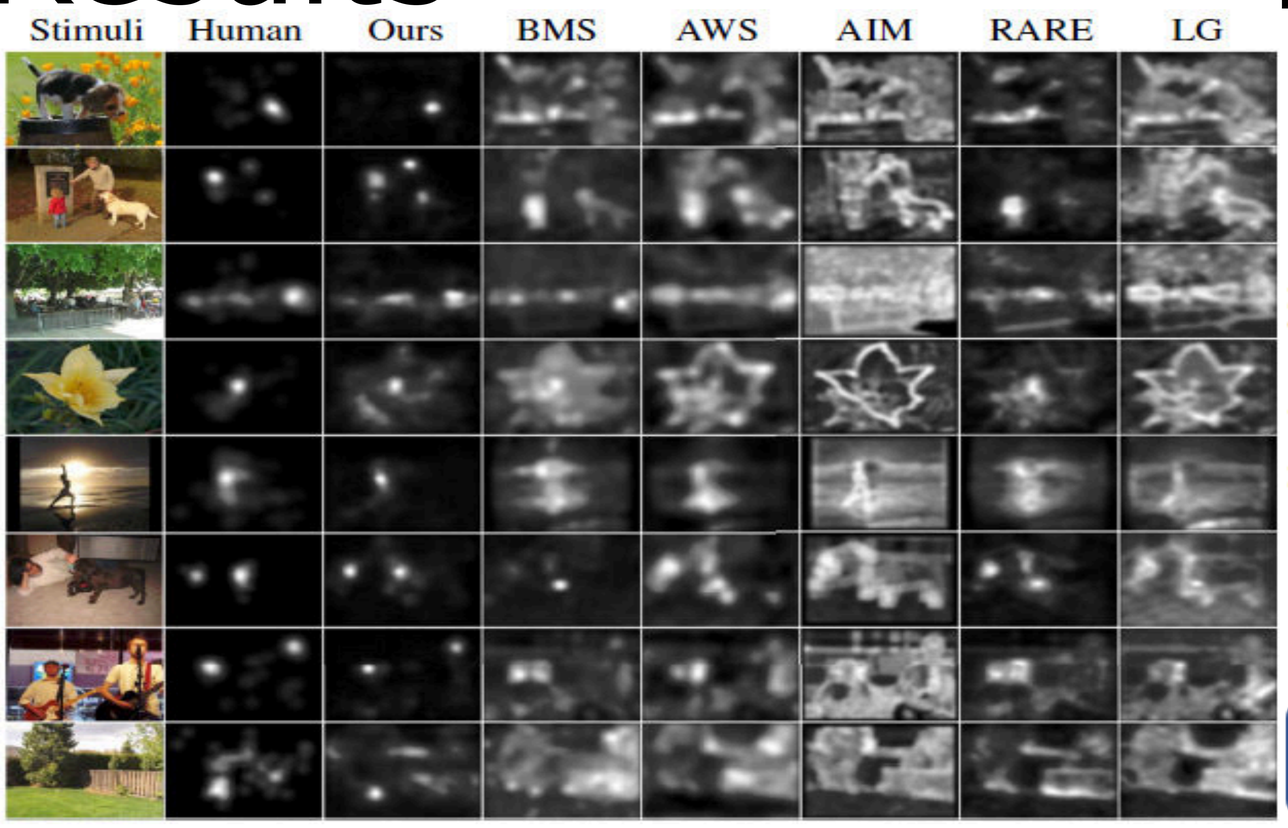
sAUC scores for all datasets



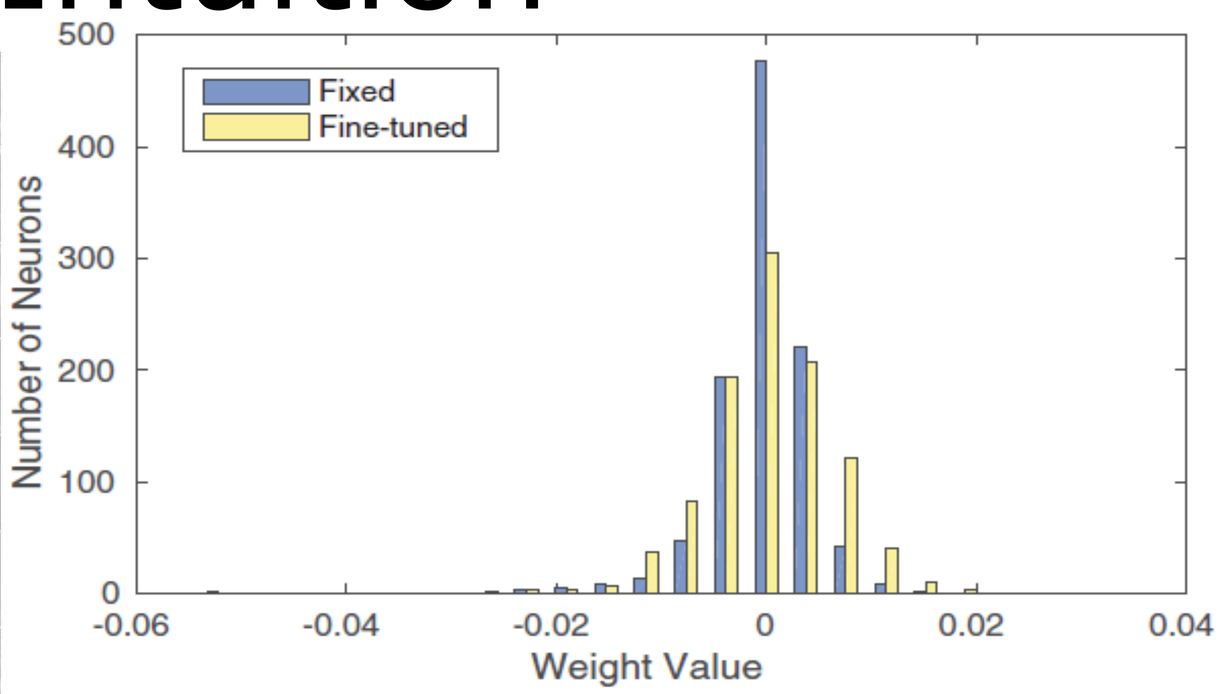
(a) OSIE (b) MIT1003 (c) NUSEF

(d) PASCAL-S (e) FIFA (f) Toronto

Results



Intuition



Poster was adapted by Caus Danu based on the following paper

Huang, Xun, et al. "Salicon: Reducing the semantic gap in saliency prediction by adapting deep neural networks." *Proceedings of the IEEE International Conference on Computer Vision*. 2015.