Interesting Objects are Visually Salient
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INTRODUCTION AND MOTIVATION
How do we decide which objects in a visual scene are more interesting than others?
High-level cognitive processes?
Low-level Stimulus?
We found that the bottom-up saliency computations showed a 43% probability (chance 21%) of finding an interesting object within the first fixation, and over 76% probability (chance 43%) within the third fixation.

STIMULUS/EXPERIMENTS
LabelMe dataset created by Russell et al. (2005).
74,454 annotated objects in 24,863 scenes.
Dataset provides a good indication of what people would find "generically interesting"
Determined Hit Rate, maximum/ratio between labeled objects and saliency value, and how subsequent fixations indicated a labeled object.

RESULTS

DISCUSSION AND CONCLUSIONS
We therefore conclude that the saliency map is a strong indicator of what people chose to label in complex natural scenes.
The saliency map showed a 43% probability of finding a labeled object within the first fixation (chance 21%), and over 76% probability within the third fixation (chance 43%).
This means that even though choosing objects to label might seem like a "free" decision, humans are largely bound by bottom-up processing that influence their higher decision.
The saliency map computations can be used for object detection and object recognition algorithms, among many other applications.