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FindingEmo: An Image Dataset for Emotion Recognition in the Wild

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NeurIPS, 2024

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What is FindingEmo?

A dataset comprised of **25,869** annotations for as many images.

Target: Emotion Recognition

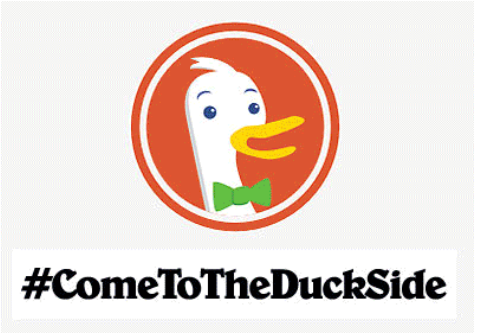
Dimensions: Valence, Arousal, Emotion (Plutchik's Wheel of Emotions)

Table 1: Comparison of relevant datasets. "V/A/D" indicates which of the Valence, Arousal and Dominance dimensions were annotated.

Name	Nb. images	Image source	Annotation target	V/A/D	Emotions scheme	Reference
EMOTIC	23,571	COCO + Ade20k + internet	Single person	V/A/D	26 custom emotion categories	24
CAER-S	70,000	TV Shows	Single person (face visible)	–	Ekman's 6 + neutral	32
HECO	9,385	HICO-DET + V-COCO + film + internet	Single person	V/A/D	Ekman's 6 + Excitement and Peace	27
FindingEmo	25,869	Internet	Whole image	V/A	Plutchik's Wheel of Emotions	This paper

Photo by David Shankbone, CC 3.0 (Wikimedia)

Gathering images



www.duckduckgo.com

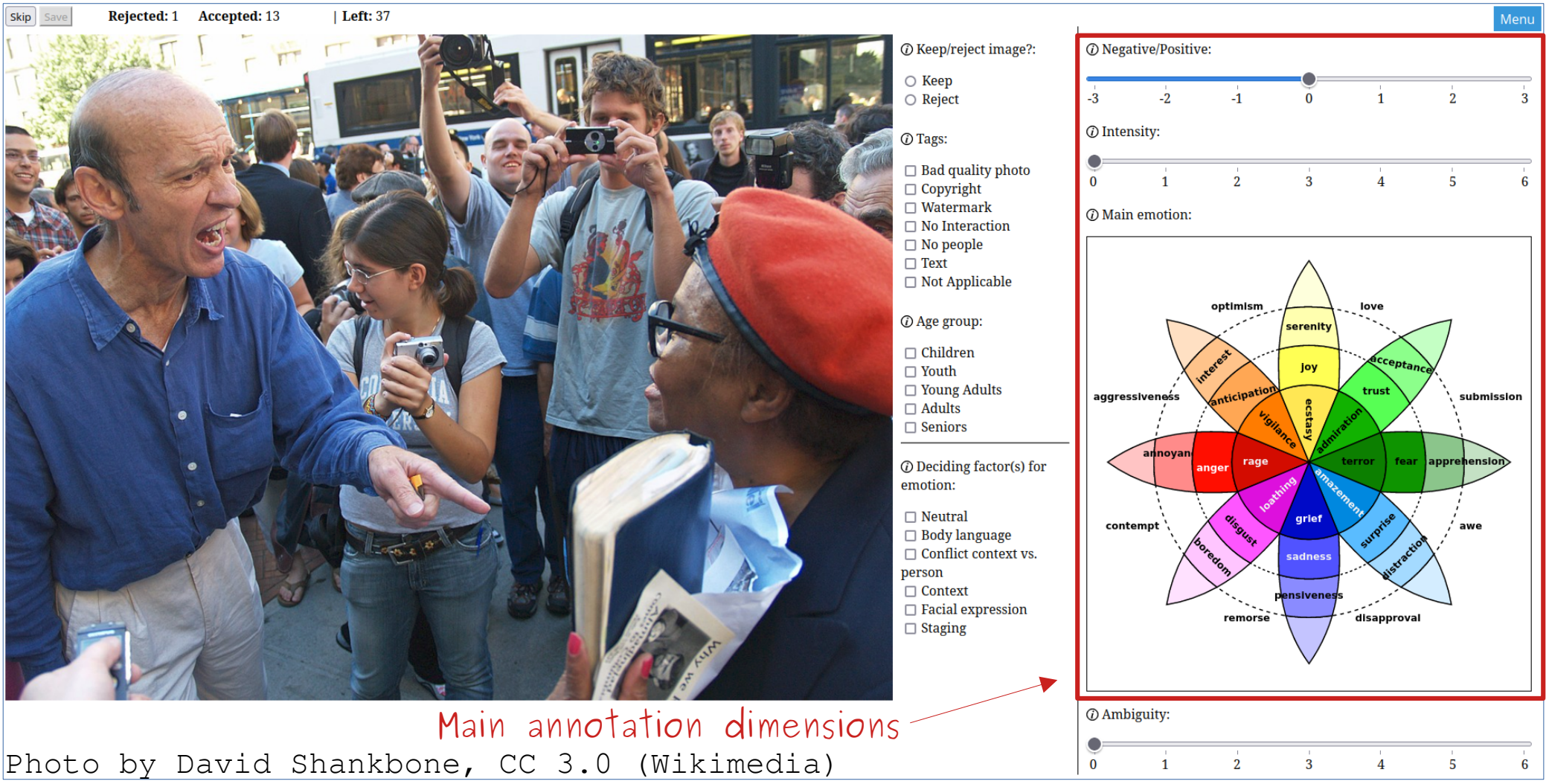
Scrape images using Duckduckgo, by generating an army of specific queries

	A	B	C
1	**Emotion**	**Subject**	**Setting**
2	accepting	children	anniversary
3	adoring	youth	beach
4	affectionate	adults	birthday
5	amused	seniors	circus
6	appreciative	people	competition
7	carefree	students	conference

Query = "Emotion subject setting"
e.g., "amused seniors circus"

Consider first 1000 results → apply some filtering → download remaining images.

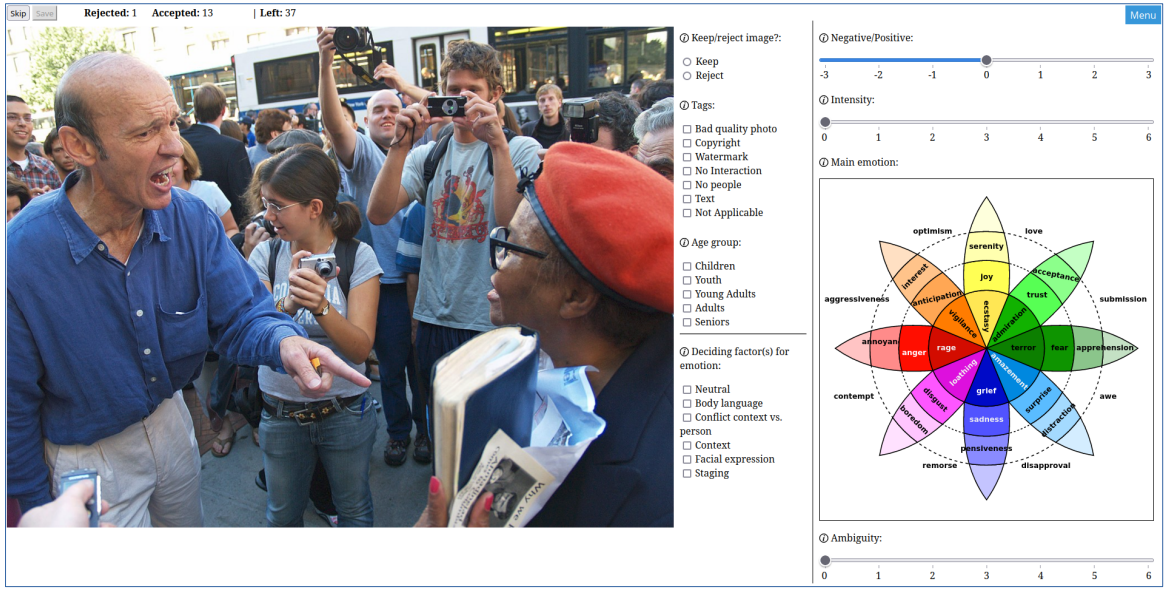
Custom annotation interface



Main annotation dimensions

Photo by David Shankbone, CC 3.0 (Wikimedia)

Custom annotation interface



Annotator recruitement

www.prolific.com

Prolific

655 annotators contributed

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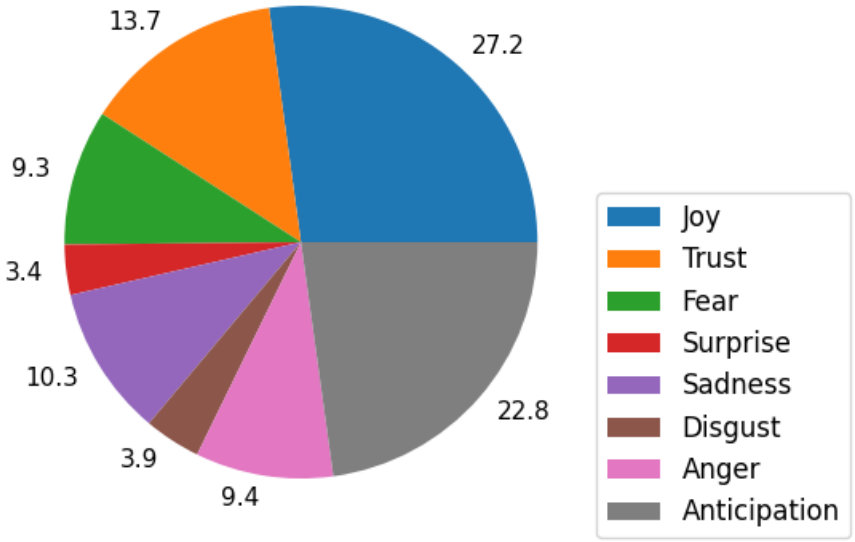
Emotion distribution



Paper sneak peak!

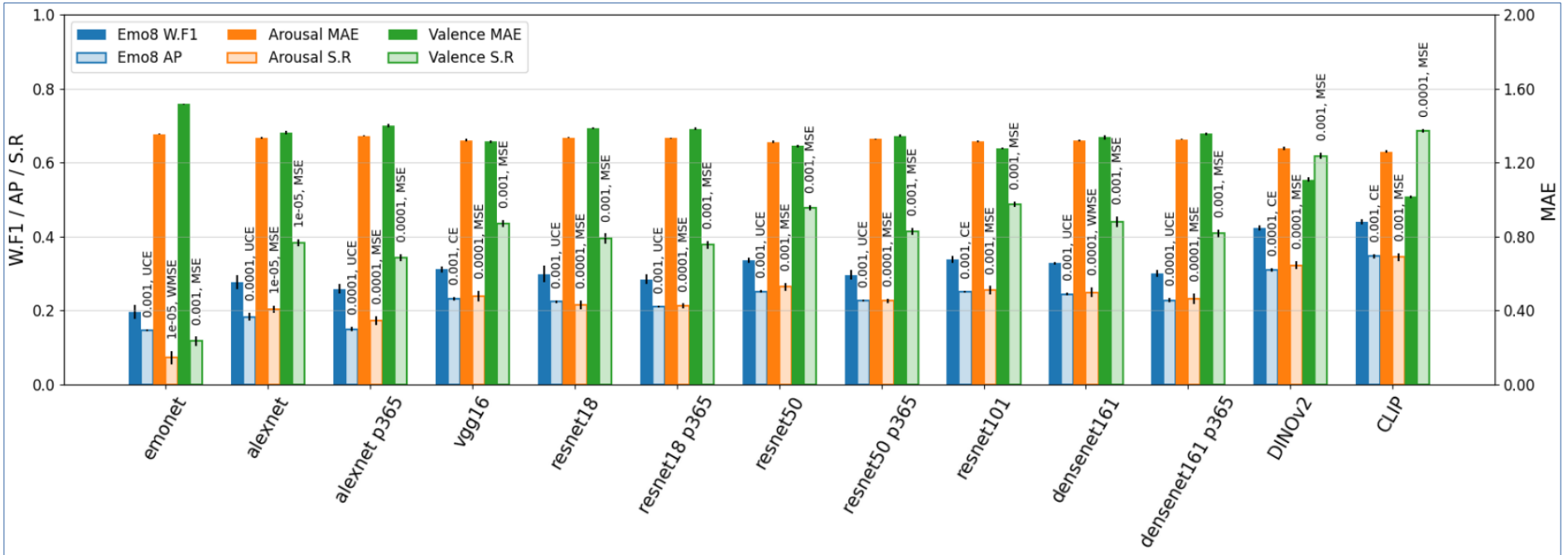


Figure 5: Test data baseline performance on the Emo8 classification and Arousal and Valence regression tasks. Metrics are: Weighted F1 (W.F1) and Average Precision (AP) for classification, and Mean Absolute Error (MAE) and Spearman R correlation coefficient (S.R) for regression. The starting learning rate and loss corresponding to each model are displayed above the training bars. (U)CE = (Unbalanced)CrossEntropyLoss, (W)MSE = (Weighted)MeanSquaredError loss, p365 = original model trained on Places365 dataset.

https://gitlab.com/EAVISE/lme/findingemo

Thanks!

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