

Advancing AI that is more aware of our emotional and cultural context

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a)		<p>شلال طبيعي جميل. مشاعر النمو والحيوية والطاقة موجودة. Translation: Beautiful natural waterfall. Feelings of growth, vitality and energy.</p>	<p>The water that's rushing downward looks like a bride's wedding veil.</p>	<p>瀑布就像四蹄生风的白马如潮水涌来, 非常的壮观 Translation: The waterfall is like a white horse and wind, it is spectacular.</p>
	<p>Excitement Arabic</p> 	<p>Awe English</p> 	<p>Contentment Chinese</p> 	
b)		<p>Translation: Girls sitting with their mother outside the house, exchanging love and affection, pigeons flying over a tree.</p>	<p>The women relaxing while birds are flying about makes me feel relaxed and calm as well.</p>	<p>Translation: Three sisters lying on a bench and watching the birds fly comfortably.</p>
	<p>Contentment Arabic</p> 	<p>Contentment English</p> 	<p>Contentment Chinese</p> 	
c)		<p>Translation: The use of black and white for painting the forests with all its details brings out a feeling of satisfaction.</p>	<p>The trees are dead and exposing their roots due to erosion and lack of water.</p>	<p>Translation: After the snow in winter, there is snow everywhere, and the dead trees look very depressed.</p>
	<p>Contentment Arabic</p> 	<p>Sadness English</p> 	<p>Sadness Chinese</p> 	

ArtELingo, a multilingual dataset and benchmark of WikiArt with captions & emotions. Credit: *arXiv* (2022). DOI: 10.48550/arxiv.2211.10780

King Abdullah University of Science and Technology (KAUST) has shown for the first time with a large-scale dataset how emotions may vary in response to visual stimuli over several languages and cultures.

ArtELingo is a multilingual dataset with emotional explanations constructed from exposure to 80,000 [visual stimuli](#) (visual artworks) in multiple languages. Its current version, accepted to the dataset, includes more than 420,000 of these annotations for each of the English, Chinese, and Arabic languages. A small version was also collected in Spanish on over 1000 artworks from Latin America and Latin Europe to explore how two [different cultures](#) speaking the same language may vary in terms of the constructed emotions.

The ArtELingo paper was presented at The 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP).

ArtELingo is a step towards creating culturally diverse datasets that represent both western and non-western cultures well. This will particularly help those looking for data when studying cultural and cross-cultural psychology. Overall, this research helps advance building more human-compatible AI aware of our emotional and cultural beings.

This project has been developed by Youssef Mohamed, Mohamed Abdelfattah, Shyma Alhuwaider, Feifan Li, and Mohamed Elhoseiny (PI) from KAUST, and collaborators from the University of Notre Dame (Xiangliang Zhang) and Kenneth Ward Church (NorthEastern university).

The authors wish to thank Baidu, Beijing time for their support in collecting the Chinese version of the dataset, and tens of universities from Egypt (mainly) and Saudi Arabia for collecting the Arabic version.

The work is published on the *arXiv* preprint server.

More information: Youssef Mohamed et al, ArtELingo: A Million Emotion Annotations of WikiArt with Emphasis on Diversity over Language and Culture, *arXiv* (2022). [DOI: 10.48550/arxiv.2211.10780](https://doi.org/10.48550/arxiv.2211.10780)

Code repository: github.com/Vision-CAIR/artelingo

Provided by King Abdullah University of Science and Technology

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