#### THE HEBREW UNIVERSITY OF JERUSALEM

Facial Expression Recognition

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### SOLUTION

A facial expression recognition system that will voice the word equivalent to a facial expression could improve the children's quality of life.



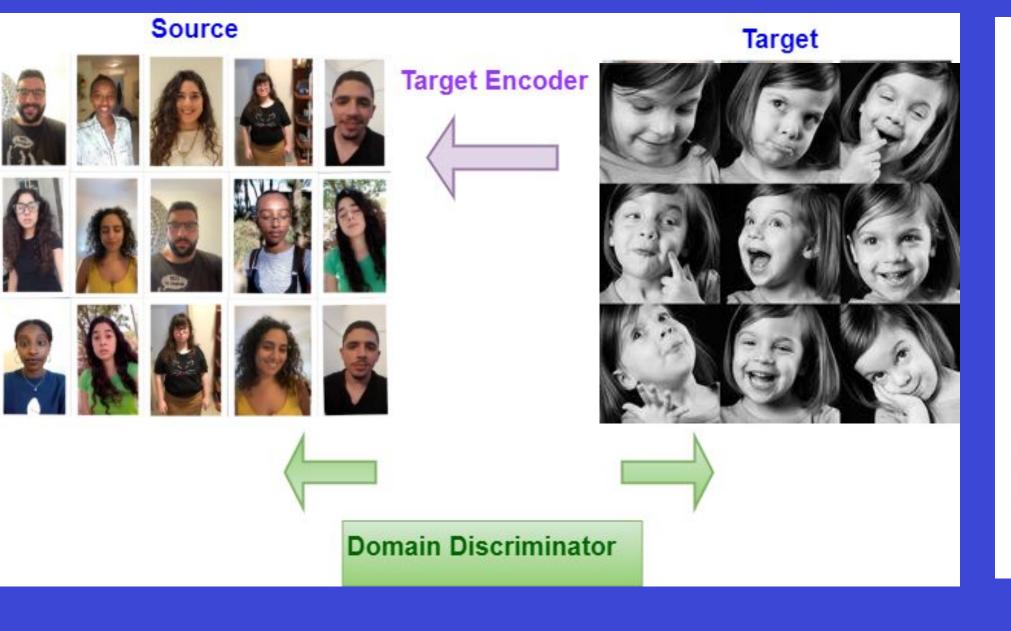
## CHALLENGE

Find an alternative solution that doesn't rely on images per facial expression for every child.



## APPROACH

#### Recognize facial expression



#### Recognize numbers



Unsupervised DA setting: We assume that there are no available labels for the target domain.

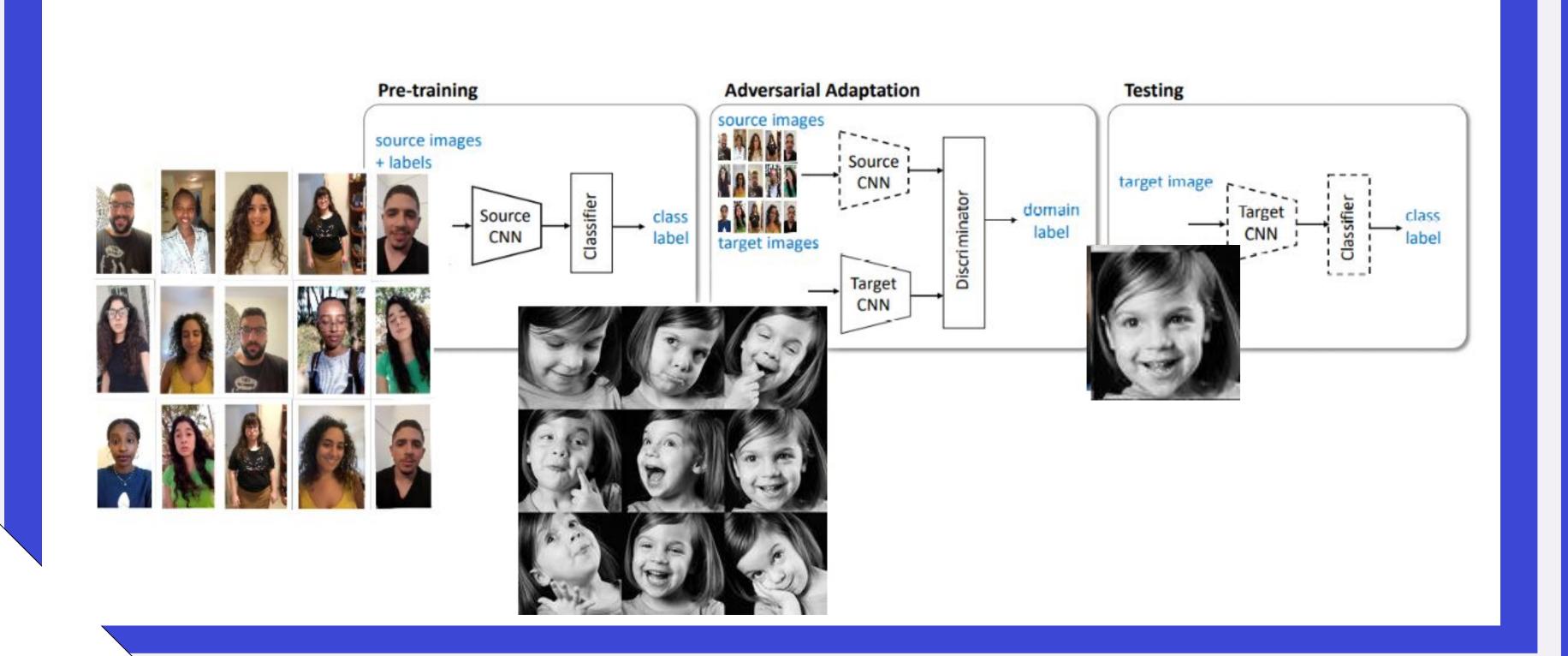
SOURCE

**TARGET** 

Why would a CNN trained on MNIST not generalize to MNIST-M?

Intuition: We need a way to force our CNN to learn features of the digit shapes only, not color distributions.

# DESCRIPTION



### Last year accuracy vs our solution accuracy

