**ABSTRACT:**

Humans have used sketching to depict our visual world since prehistoric times. Even today, sketching is possibly the most important rendering technique readily available to all humans. Sketching is one of the primary methods people use to communicate visual information.

Free-hand sketches are usually drawn by non-artists using touch sensitive devices rather than purpose-made equipment; thus, making them often highly abstract and exhibit large intraclass deformations. This makes automatic recognition of sketches more challenging than other areas of image classification because sketches of the same object can vary based on artistic style and drawing ability. In addition, sketches are less detailed and thus harder to distinguish than photographs.

The model is trained on a dataset of human-drawn images representing many different classes. Using a publicly available dataset of 20,000 sketches across 250 classes from we are applying convolutional neural networks (CNNs) in order to improve performance to increase the recognition accuracy on sketches drawn by different people. Based on the computational model, we demonstrate an interactive sketch recognition system for few objects.