

SEMI-AUTOMATIC VIDEO SEGMENTATION TO SUPPORT EYE GAZE RESEARCH IN AUTISM

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Expeditions in Computing

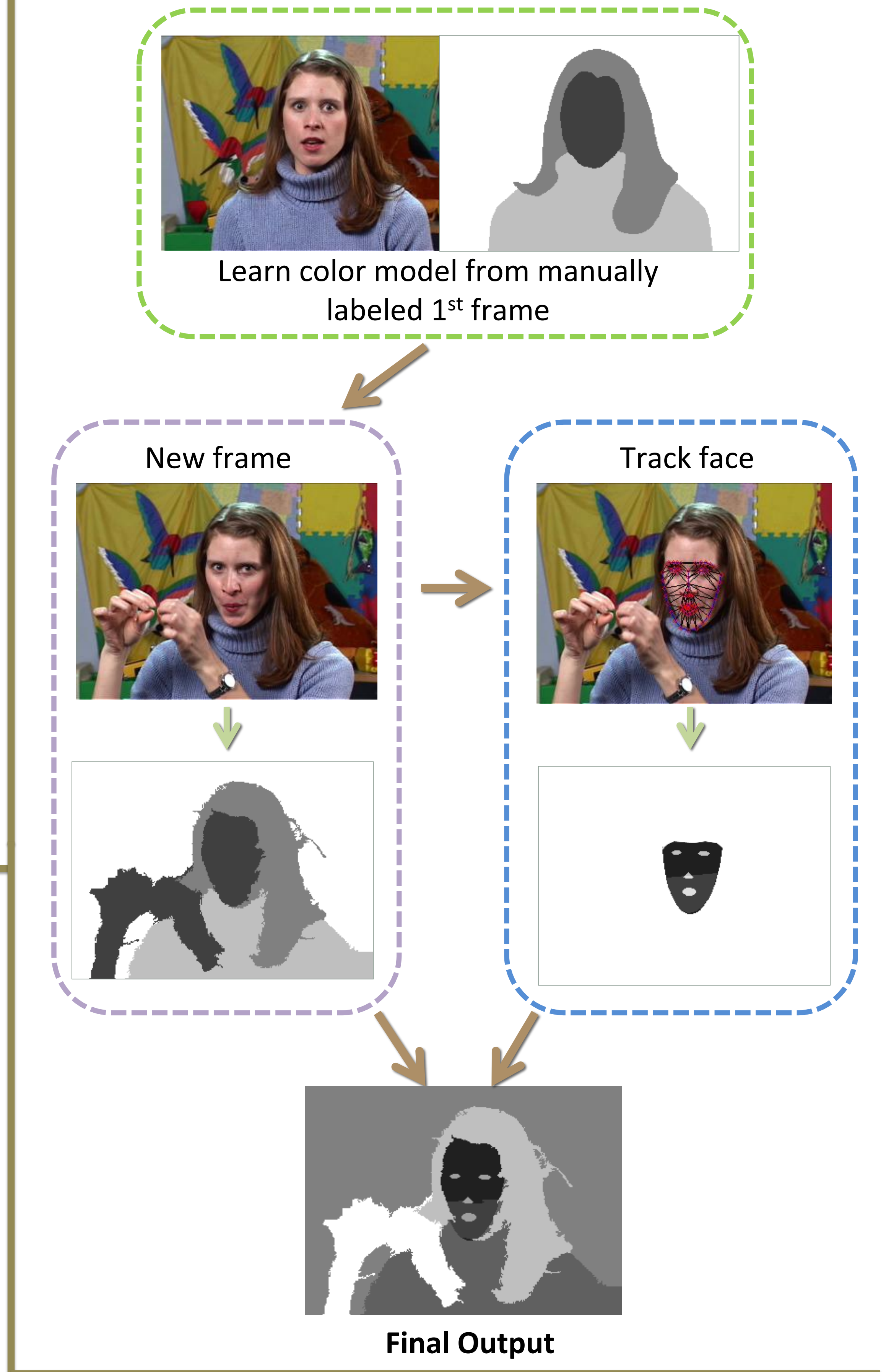
Background

Analyzing the eye gaze pattern of a child looking at a video is helpful for studying preferential looking in children with ASD. However, such analysis requires manual annotation of the video, which is a human intensive and time consuming process (several hours of human labor might be needed to annotate 1-2 minutes long video). In this work, we propose a technique to significantly speed up the video annotation process. Our approach requires only a few minutes of human interaction, and about two hours of computational time to process 1-2 minutes long video.

Goal



Overall Approach



Results



Discrepancy between automatic & manual labeling



Most of the discrepancies are located in the boundary regions. It is important to note that small mistakes in doing segmentation around the boundary region do not cause a significant change in the final analysis of the eye gaze data.

