

Losing Individuality: The Need for Facial Obfuscation

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With the rapid advancements of the computer vision field, particularly the area of face detection and recognition, great concern for privacy has arose. With the introduction of face recognition functionality into surveillance systems which are being widely adopted, one wonders what happens to people's individuality. With constant monitoring and profiling, people will become more worried about expressing themselves so that their personal record adheres to societal norms. This impact is even greater for kids whose uniqueness could be damaged as they would want to ensure that they explore similar things to their peers as to not seem like an outsider which can greatly hinder their development.

The motivation behind this paper comes exactly from that, to assist my professor with her research, regarding motor development in children and how it can hinder their cognitive development. I was tasked to create a tool that would process data of children performing various tasks that would obfuscate these children's faces to hide their identities and protect their privacy and individuality. The obfuscation however, needed to be limited to a point where the location of facial features could still be detectable for future research.

In this paper I delve into the various face detection and obfuscation techniques along with available frameworks that implement these computer vision methods to develop a tool that can be easily utilized to protect children's privacy and potentially have future more advanced implementations.