Facial Liveness Testing: For The Web

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***Abstract* —**

Context/Background TODO

Aims TODO

Method TODO

Results TODO

Conclusions TODO

***Keywords* —** Facial liveness, convolutional neural networks, image quality metrics

I INTRODUCTION

Currently, username and password authentication is commonplace throughout the web. However, username and password based authentication systems have a number of problems. Some common passwords can be broken using dictionary attacks, especially if they consist partially or entirely of a word in a standard dictionary. Furthermore, the process of shoulder surfing is possible (watching out for someone's password, and how they type it).

An easy to use system is necessary to remove the choice from the user (in terms of password), relying on the user being automatically detected, and several confirmation methods to ensure the user is indeed who they say they are (and not just someone spoofing the system). Before such a system is developed, a facial liveness testing method must be found that operated in near real-time, and that is fairly accurate.

Furthermore, some communication scheme between a public device (e.g. client-side web browser code, that can be accessed), and the liveness system, must be present in order to ensure facial spoofing isn't present on the client input (reusing the same image).

II RELATED WORK

TODO related Work

III SOLUTION

IV RESULTS

TODO results

V EVALUATION

TODO evaluation

VI CONCLUSIONS

References