



TELEDERMATOLOGY

EVALUATION OF ARTIFICIAL INTELLIGENCE IN IDENTIFYING ROUTINE DERMATOLOGY CONDITIONS

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Background: The advent of deep learning and artificial intelligence has enabled apps which can be used by end users to identify their skin or hair problems.

Objective: To evaluate the efficiency and utility of direct-to-consumer app an observational study was conducted over a period of 2 weeks in the out-patient dermatology department of a major hospital.

Material and method: The App which was evaluated was Tibot, which is available as a mobile phone App available on Android and iPhone. The App analyzed the image of the problem area and asked a few relevant questions about the related symptoms in a conversational chat interface.

Result: The App diagnosed from a list of 12 routine conditions covering 90% of the cases typically seen in the out-patient clinic. The App returned a list of Top 3 condition with a confidence measure for each condition. The diagnosis by a Dermatologist is compared with the results of the App for Top 1 match and Top 3 match to evaluate the suitability of use by end-users. The diagnostic accuracy between the dermatologist's diagnosis and top prediction by the App was XX% and for the match with the first 3 diagnoses of the App was YY%.

Conclusion: The study concludes that the App can be used by end-users to get a preliminary analysis for their dermatology conditions but should take advice from a trained Dermatologist before any treatment option is determined.

