

## **Bridging the Gap Between Community, Academia, and Industry to Understand the Usefulness of an AI-Powered Dermatology Tool Among Everyday Users**

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### **ABSTRACT**

**Background:** Despite concern regarding the utility, generalizability and algorithmic biases of artificial intelligence (AI)-powered tools for healthcare, there is a lack of collaboration between industry and academia to engage diverse communities in the development of this technology. Stanford partnered with Santa Clara Family Health Plan (SCFHP) and Google to better understand the viewpoints and perceived usability of an AI-driven dermatology tool among community participants in East San Jose, CA.

**Methods:** Our objectives were to (1) determine utility of the tool in an ethnically and age diverse population; (2) obtain in-depth feedback from participants recruited during SCFHP Health Fairs; (3) provide participants access to clinicians and identify follow-up services. Before meeting with an onsite physician, participants used the tool in their preferred language to take photographs of a skin concern and receive information on 3-7 matching conditions and possible treatments. Feedback was assessed from participants and physicians via survey and structured user experience interview.

**Results:** Seventy-five participants, speaking either English, Spanish, Vietnamese, or Mandarin, were included in the analysis and expressed moderate satisfaction with the tool. Key gaps identified included a need for clearer presentation of information and more details on matching conditions. Physicians found the tool's results consistent with their assessments in approximately 80% of cases reviewed and useful in supporting physician-patient conversations.

**Conclusions:** This project unites community service, research, and experience testing in a collaborative pursuit, providing a model for bridging the gap between community, academia, and industry to develop technology that benefits all users.

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