Health Heritage Innovations
Category: Technology
Stage: Pilot
Country (region): India (South-East Asia)

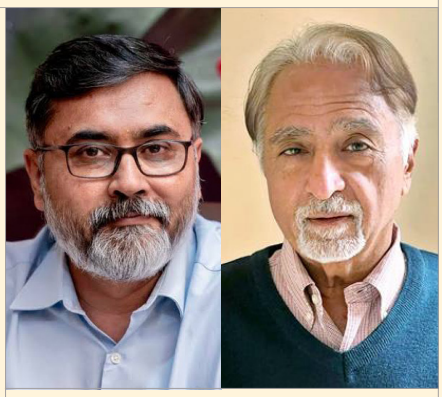
AI assistant for Ayurveda

An advanced AI platform for Ayurvedic management of musculoskeletal diseases

Musculoskeletal disorders are the fourth most prominent global disease, affecting 1.7 billion individuals. Current health care approaches, largely disease-centric, show limited effectiveness in addressing chronicity, functional decline and long-term wellness. In contrast, Ayurveda offers holistic, complementary strategies for managing chronic conditions. Although Ayurveda solutions are available through Ayurveda physicians (called Vaidyas), limited awareness, scientific validation and availability of standardized quality care at scale have prevented their broad adoption.

Towards addressing these limitations, we propose to develop an AI-powered Vaidya's assistant (VASSIST), building on our team's semi-automated past work on differential-diagnosis and personalized-management of 200 000 patients. VASSIST will employ sensors and machine learning to reproduce the Vaidya's diagnostic modalities of sight, sound and touch, using computer vision, audio understanding and touch-sensing technologies. Results will occasionally be verified with biomedical assessments. VASSIST will draw inferences using the knowledge/reasoning capabilities of large language models, and will correct/improve its performance under Vaidya's supervision.

VASSIST will help reduce Vaidya's time spent collecting patient data, enabling greater attention to the more challenging, diagnosis and treatment tasks. VASSIST's components (cameras, microphones, computers and touch-sensors) are common place and inexpensive. Ease of operating and maintaining them could support the emergence of a cottage industry of Ayurvedic-care enterprises powered by low-skilled labour, scaling up employment as well as access to meet growing societal demand. VASSIST's low cost could enable its wide adoption in academic training.



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Evidence and supplementary materials