TECH OFFER

AI-Powered Digital Health Platform for Active and Independent Ageing

KEY INFORMATION

TECHNOLOGY CATEGORY:
Healthcare - Telehealth, Medical Software & Imaging

TECHNOLOGY READINESS LEVEL (TRL): TRL5
COUNTRY: SINGAPORE
ID NUMBER: TO175345

OVERVIEW

The technology is an AI-enabled, media-driven, and community-integrated digital health platform designed to empower seniors to live healthier, more engaged, and more independent lives.

- For seniors: accessible, engaging, and personalised health and wellness guidance, inclusive of those who are wheelchair-bound.
- For families & caregivers: real-time progress monitoring and encouragement tools.
- For community organisations: scalable and customisable platform to run wellness programmes.
- For healthcare & policy stakeholders: data-driven insights into preventive health, functional decline, and community engagement impact.

The platform is supported by industry and academic partners and has received encouraging initial feedback from community and hospital proof-of-concept trials.

The technology owner seeks licensing opportunities with community care organisations or tech companies, partnerships with healthcare providers, government agencies, and insurers, as well as scaling partners for secure cloud deployment of AI models and applications. They are also looking for collaborators to co-develop new media IPs and gamified challenges for regional markets.

TECHNOLOGY FEATURES & SPECIFICATIONS

This AI-powered digital health platform has three key functionalities:

- Evaluate: The platform leverages AI-enabled technologies and computer vision to conduct a range of senior-focused assessments, including baseline fitness tests with real-time performance feedback, cognitive evaluations using the digital Mini-Mental State Examination (MMSE), emotional health screening via the Geriatric Depression Scale (GDS), and fall-risk home scans that apply object recognition to detect environmental hazards.
- Enhance: The platform offers a diverse range of celebrity-led wellness programmes for seniors, including personalized, science-based exercise plans, interactive vocal training, creative art therapy sessions, guided dance routines to enhance mobility and enjoyment, photography activities for self-expression and memory stimulation, interactive music engagement, and home-based safety practices for fall prevention.
- Engage: The platform features an interactive media library with flagship content such as variety shows, short films, and music videos, complemented by post-media activities like quizzes, challenges, and interactive discussions. Built on gamification principles—including points, badges, rewards, leaderboards, and community challenges—it fosters engagement across families, neighbours, and communities. By encouraging intergenerational participation, it enables seniors to enjoy meaningful content, stay socially connected, and lead a more fulfilling life.

Moreover, the platform is tailored for Singapore's local community, offering multilingual support in English, Mandarin, Cantonese, Malay, and Hokkien. It also provides senior-friendly functionalities, including a health dashboard displaying key indicators (steps, exercise minutes, average heart rate, SpO_2, etc.), a smart calendar to track upcoming activities such as exercise, dance, art, and music, as well as reminders through push notifications for medication and programme adherence.

POTENTIAL APPLICATIONS

This technology suite supports diverse applications across sectors, delivering primary benefits in senior care (e.g., active ageing centres and nursing homes) and extended use in hospitals and clinics for digital baseline testing and remote patient monitoring. It is also applicable in educational institutions and media platforms such as intergenerational programmes that blend arts, music, and health, as well as in corporate wellness and CSR initiatives.

UNIQUE VALUE PROPOSITION

The system's main differentiation lies in its software application, which can be adapted for compatibility with wearable watches that emit photoplethysmography (PPG) signals.

Powered by an AI-driven computer vision engine and advanced machine learning models, it employs proprietary models to conduct senior-friendly functional tests, predict vital health indicators, and detect fall risks—eliminating the need for a physical coach. It offers a validated digital version of the Mini-Mental State Examination (MMSE), along with exclusive programmes and proprietary in-house media content.