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Korean startup DoctorPresso develops app to detect depression through voice

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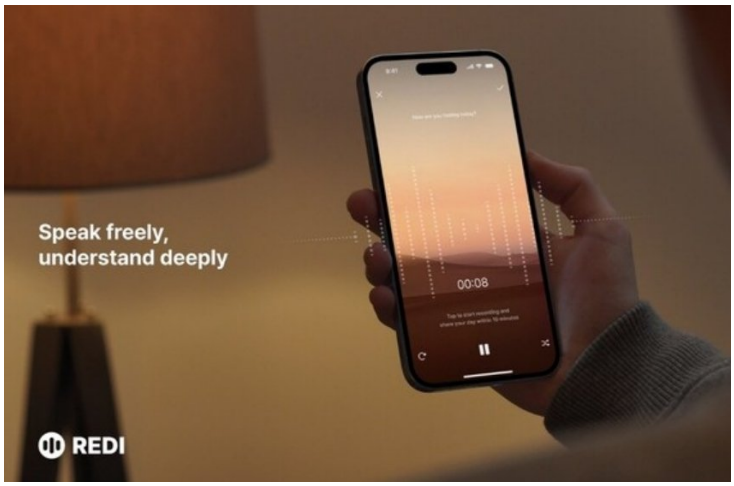
As REDI prepares for its global rollout, DoctorPresso is optimistic about the app's impact



In a world where mental health challenges are on the rise, South Korean startup DoctorPresso is taking an innovative step forward. The company has introduced REDI, a voice-based diary app that can detect early signs of depression by analysing the users' speech patterns. It's a bold new approach to mental health care, one that promises to change how we monitor and manage emotional well-being.

Depression, which affects over 258 million people globally, is not just an emotional struggle; it's a leading cause of disability and lost productivity. Traditional screening methods, such as questionnaires, often fall short in accurately assessing the depth of a person's mental state. Recognising this gap, DoctorPresso has harnessed the power of artificial intelligence (AI) to develop an app that listens to what you say, and how you say it, offering deeper insights into your mental health.

REDI analyses four key voice characteristics: average pitch, pitch variability, spectral centroid, and spectral roll-off. According to the research, these elements change as depression worsens- lower pitch, greater variability, and shifts in the voice's frequency range are all indicators. REDI's AI uses these factors to classify users into three depression stages- non-depressed (ND), mild depression (mDE), and major depressive episode (MDE).

What sets REDI apart is not just its innovative technology but also its emphasis on privacy. Unlike many AI-powered tools that send data to the cloud, REDI employs a Small Language Model (SLM), which processes all voice data directly on the user's device. This ensures that sensitive information remains private, giving users peace of mind while using the app to manage their mental health.

The app also offers a habit-tracking calendar that monitors lifestyle factors like sleep, alcohol consumption, and physical activity.