New app helps monitor depression

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Scientists from the University of Birmingham have developed an app that can measure the activity patterns of patients with depression and provide the necessary support.

"MoodTraces" is a smartphone app designed to monitor and evaluate a person's mood and activities in real-time, allowing healthcare officers, doctors and charity workers to intervene when behaviours indicate a worsening depressive state.

The app will allow academics and clinicians to investigate how mobile technology can be used to collect and analyse data to better understand how mental health problems affect the daily routine and behaviour of sufferers. A series of multiple choice questions asks the user about the occurrence of depressive symptoms, while specially designed software tracks their current location, activity and application usage. If the data collected correlates with key indicators of a worsening mental state, health and charity workers are able to intervene through the mobile phone itself or more traditional methods such as a telephone call, or arranging to meet the patient in person.

The information gathered will help build a system to monitor the individual over time and understand any changes which would correlate with worsening depression and to develop a programme of care which can be given through mobile technology.

According to a recent study, one in 10 employees in the United Kingdom has taken time off work because of depressive symptoms. Dr Mirco

Musolesi, a Reader in Networked Systems and Data Science at the University of Birmingham's School of Computer Science who developed the app said: 'The goal is to build an application that is completely unobtrusive and privacy-preserving, which will be of real help for people affected by depression. The application will allow health officers, doctors, and charity workers to spot cases that need immediate consideration and prioritise them'.

Luca Canzian, a Research Fellow at the University of Birmingham's School of Computer Science added: 'Mobile technologies and real-time big data analytics can have a huge impact on the life of thousands of people. We are also working to develop technologies that are able to provide automatic support to people affected by depression through their phone.'

The data collected through MoodTraces will help researchers design innovative applications which will pave the way for real-time healthcare provision. The researchers are currently looking for participants who are willing to download the MoodTraces application. They are looking for people who are affected by [clinical depression](#) and also members of the general public so they are able to build a large-scale database for understanding the correlation between mobility patterns, activities and the mood of the general population.

  More information: The MoodTraces application is available to download on Google Play: [play.google.com/store/apps/det …=com.nsds.moodtraces](#)

Provided by University of Birmingham