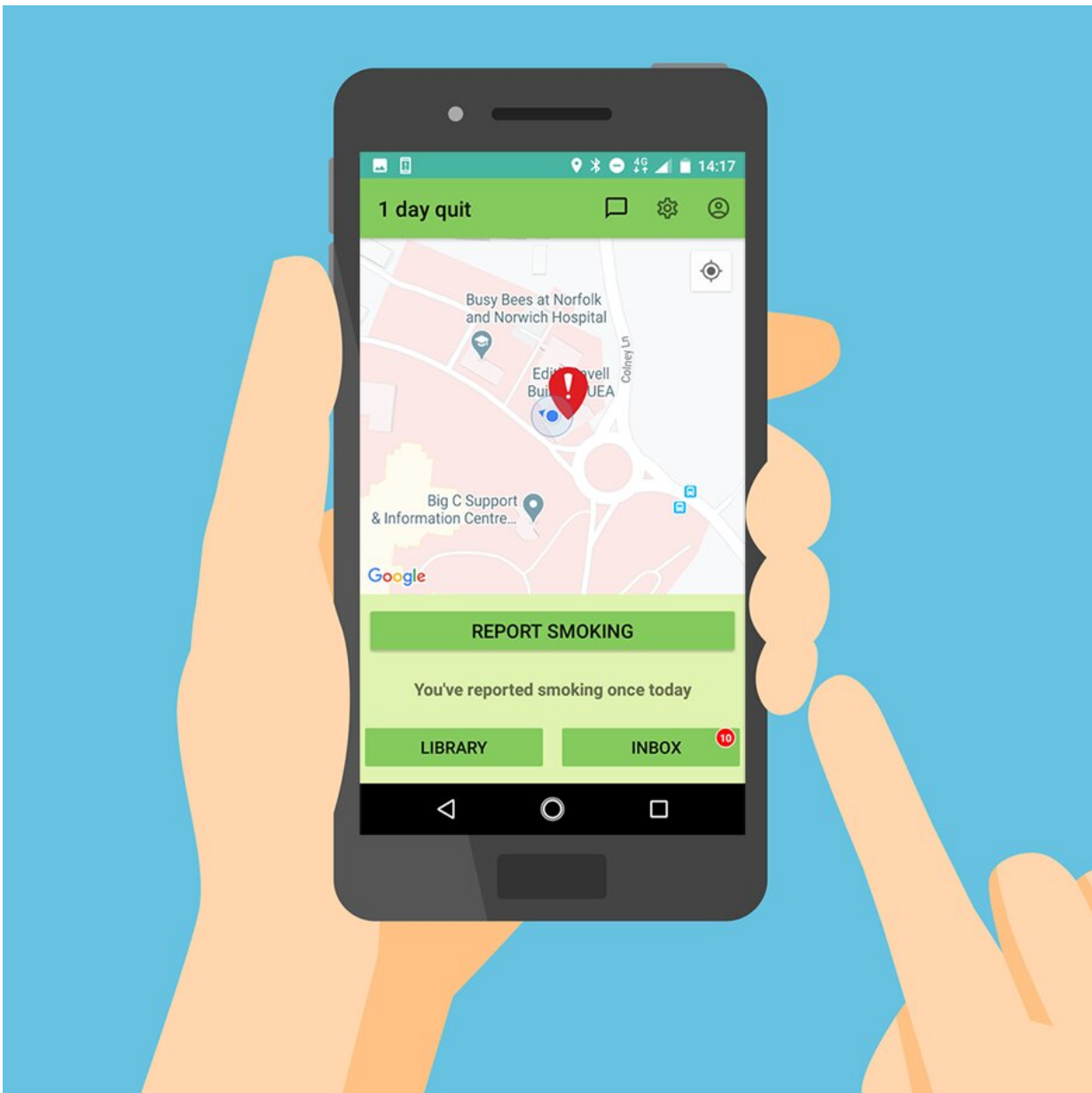


# How AI and a mobile phone app could help you quit smoking

April 13 2023

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Quit Sense is the world's first Artificial Intelligence (AI) stop smoking app which detects when people are entering a location they used to smoke in. It then provides support to help manage people's specific smoking triggers in that location. Credit: University of East Anglia

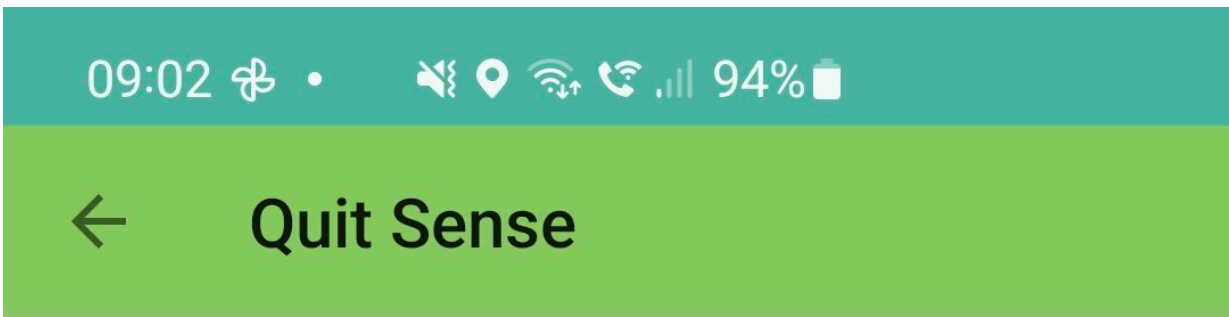
A stop-smoking mobile app that senses where and when you might be triggered to light up could help you quit, according to University of East Anglia research.

Quit Sense is the world's first Artificial Intelligence (AI) stop smoking app that detects when people are entering a location where they used to smoke. It then provides [support](#) to help manage people's specific smoking triggers in that location.

A study published today shows how the new app helped more smokers to quit than people who were only offered online NHS support. The research team hopes that by helping people manage [trigger](#) situations, the new app will help more smokers to quit.

The work is published in *Nicotine and Tobacco Research*.

Lead researcher Prof Felix Naughton, from UEA's School of Health Sciences, said, "We know that quit attempts often fail because urges to smoke are triggered by spending time in places where people used to smoke. This might be while at the pub or at work, for example. Other than using medication, there are no existing ways of providing support to help smokers manage these types of situations and urges as they happen."



## Chats can take your mind off things

If you are spending the rest of the day at home, and struggling, perhaps you could arrange to have a chat with someone? Maybe even arrange regular catchups with a friend or colleague if it helps?

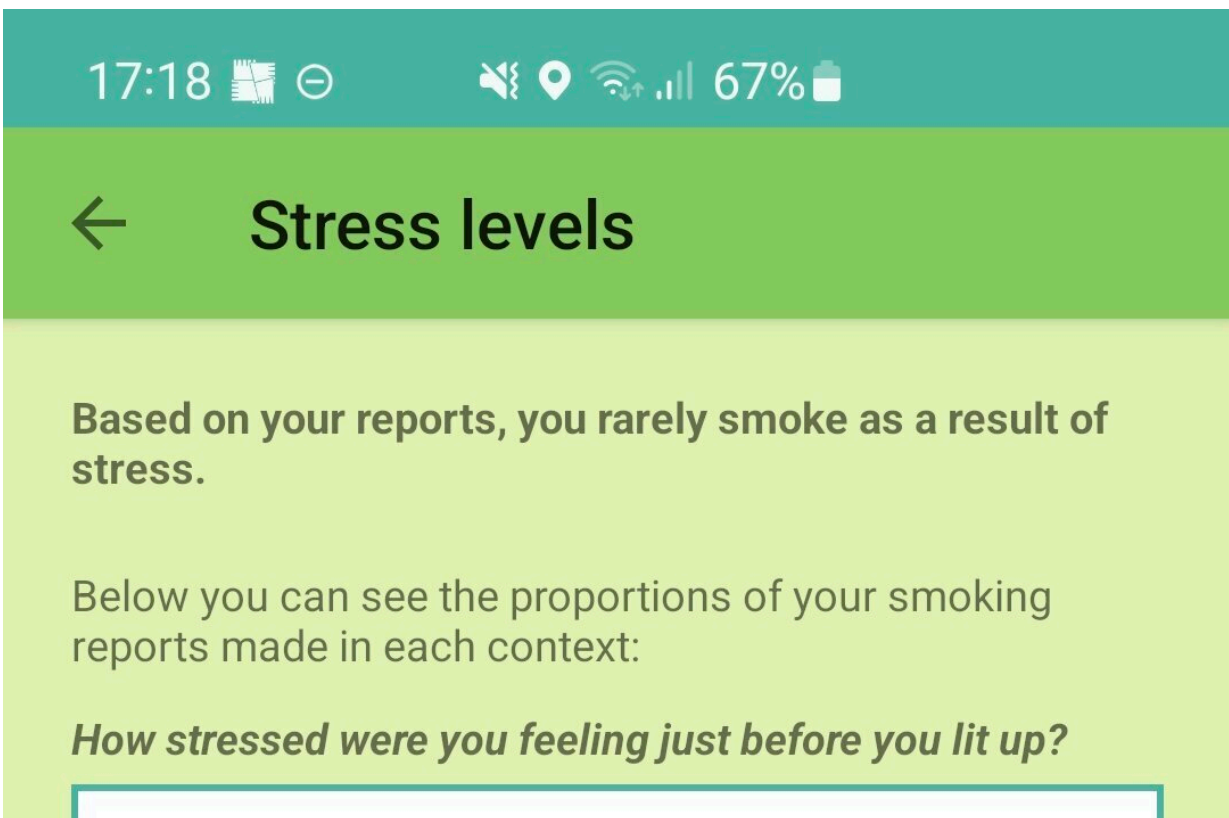
Quit Sense is the world's first Artificial Intelligence (AI) stop smoking app which detects when people are entering a location they used to smoke in. It then provides support to help manage people's specific smoking triggers in that location. Credit: University of East Anglia

Dr. Chloë Siegele-Brown from the University of Cambridge, who built the app, said, "Quit Sense is an AI smartphone app that learns about the times, locations and triggers of previous smoking events to decide when and what messages to display to the users to help them manage urges to smoke in real time."

Prof Naughton added, "Helping people attempting to [quit smoking](#) to learn about and manage these situations is a new way of increasing a smoker's chances of quitting successfully."

The research team carried out a randomized controlled trial involving 209 smokers who were recruited via social media. They were sent links by [text message](#) to access their allocated treatment—all participants received a link to NHS online stop smoking support, but only half received the Quit Sense app in addition.

Six months later, the participants were asked to complete follow-up measures online and those reporting to have quit smoking were asked to mail back a saliva sample to verify their abstinence.



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Prof Naughton said, "We found that when smokers were offered the Quit Sense app, three-quarters installed it and those who started a quit attempt with the app used it for around one month on average. We also found that four times more people who were offered the app quit smoking six months later compared to those only offered online NHS support."

The research team note that one limitation of this relatively small-scale study was that less than half of the people who reported quitting smoking returned a saliva sample to verify that they had quit smoking. More research is needed to provide a better estimate of the effectiveness of the app.

Health Minister Neil O'Brien said, "Technology and smartphones have a role to play in driving down smoking rates, which is why I've set out our plans to explore the use of QR codes in cigarette pack inserts to take people to stop-smoking support.

"Making better use of technology—alongside the world's first national 'swap to stop' scheme and financial incentives for [pregnant women](#) alongside behavioral support—will help us to meet our smoke-free ambition by 2030, reduce the number of [smoking](#)-illnesses needing to be treated, and cut NHS waiting times."

This study was led by the University of East Anglia in collaboration with researchers from the University of Cambridge, the Norwich Clinical Trials Unit, the University of Nottingham, King's College London, University College London, and Imperial College London.

**More information:** Felix Naughton et al, An automated, online feasibility randomised controlled trial of a Just-In-Time Adaptive Intervention for smoking cessation (Quit Sense), (2023). [DOI: 10.1093/ntr/ntad032](#)

Provided by University of East Anglia

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