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Mobile phones to track carbon footprint

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Carbon Diem's mobile phone carbon calculator

Keeping track of your carbon footprint could become as simple as slipping a mobile phone in your pocket: a London-based start-up company has developed software for mobile phones that uses global positioning satellites to work out automatically whether you are walking, driving or flying and then calculate your impact on the environment.

Carbon Diem's inventors claim that, by using GPS to measure the speed and pattern of movement, their algorithm can identify the mode of transport being used. It can therefore calculate the amount of carbon dioxide that a journey has emitted into the atmosphere – without any need for input from the traveller.

The system's inventor, Andreas Zachariah, a graduate student of the Royal College of Art in London and chief executive of the Carbon Hero company, said that Carbon Diem is the world's first automated carbon calculator.

Because it keeps a constantly updated diary of a person's carbon emissions, Zachariah said that a user can easily track their environmental impact and, if they choose, modify their behaviour to lower-carbon alternatives.

"We're facilitating people to make little changes and allow those changes to be noted and registered and possibly shared," he said. "If lots of people realise we're in this marathon [in tackling climate change] and we're not running alone, then we actually think people will be motivated to stick to changes."

He has tested the software in Nokia and Blackberry phones, using computer algorithms to predict the kind of transport a person is taking. He claims that in tests over the past year, the software was almost 100% accurate in working out when people were on airplanes or trains; it was between 65-75% accurate at guessing when people travelled on buses.

Zachariah said he had the idea for Carbon Diem when he tried to work out his own carbon footprint using the many online calculators available. These usually involve manually entering the details of type of transport and the length of a journey.

"The whole process is so painful," Zachariah said. "That's when I realised it had to be effortless."

Zachariah believes companies could also benefit from the software, as firms committing to reducing their environmental impact may need to collect travel data on their employees. He accepts there could be concerns over privacy but says the software can be used to record only the carbon impact, not the actual routes.

Friends of the Earth's climate campaigner, Robin Webster, said: "Individuals have an important role to play in tackling climate change - and technologies like the Carbon Diem could help people cut their carbon footprint."

The European Space Agency (Esa) gave the Carbon Diem software a regional award last year in its European satellite navigation competition. It will launch commercially in spring next year.