

Have you ever used your smartphone to find out what the weather's going to be like? Now there's an app that will get information about the weather all over the world, in real time, so the forecast may never be wrong again!

People weather

At least 92% of adults in the UK use a mobile phone and the number for users with smartphones is expected to pass 50% very soon. Finding good uses for information from our phones looks like a smart idea. To avoid the problems of normal weather reporting, OpenSignal from London were inspired by the increasing number of high-tech sensors in our smartphones to measure air pressure, humidity and the Earth's magnetic field to make mobile phones mobile weather stations. They have started an online service, called WeatherSignal, that takes meteorological information from android smartphones and maps it online, so we can find out what the weather is actually doing right now in our local park.

Part of a big project

Their previous app collected a lot of information on mobile phone coverage around the world using information about battery temperature. The logical next step was to invent the calculation to make an average of battery temperatures and make these readings of ambient temperature. The calculation works when it's averaged over an area of a large crowd of users. It has to be part of the bigger process. Samuel Johnston at OpenSignal explains, 'It is helping to show what the weather is like for everybody. So if we have 100 users for London, we can collect the correct temperature for London. It's a way to calculate an average, so for each individual phone it may not be correct.'

Collecting information

One of the pages in the app is a world map so you can search for any location and get readings in real time about the weather. Johnston says, 'we are building this big crowd source map so if we don't have any users we don't have any information. For now it's all about increasing the number of users we have and thinking about what we can do with this information. We are trying to improve the app and build up as big a bank of information as we can.'

The concept of collecting data from a lot of people has been around for a while. What's exciting about this, according to Johnston, is that people don't actually have to do anything. They are very excited about this idea of collecting data from many people in a passive way. And the more people who use the app the better it will work for everyone.

If you're interested in science check out the British Council's science magazine called *Cubed* at <http://www.britishcouncil.org/cubed>.