**What is the Internet of Things?**

How many objects do you own that are connected to the Internet?

A few years ago, you may have said one or two. Today you may have a laptop, tablet, smartphone, video game console, smart speaker, smartwatch, smart TV or even a smart toaster. With the list only expected to increase in the future, it's worth considering how this all works and how it will impact our daily lives.

By 2020, it's estimated there will be 50 billion objects connected to the Internet. [World population projections](https://www.populationpyramid.net/world/2020/" \o "Opens in new window" \t "https://www.murdoch.edu.au/news/series/series-articles/future-in-technology/_blank) predict there will be 7.7 billion people alive at this time, meaning that for every person on earth, there will be 6.5 objects connected to the internet.

These endless connections create a world blanketed by billions of sensors, all collecting and sharing data from real physical objects and uploading it to the internet. This constant changing and merging of digital and physical worlds is what is known as the Internet of Things (IoT).

**How will IoT impact you?**

Let’s imagine your smartphone wakes you up for Uni at 7am. You normally get the train, but today the train has been cancelled, so you'll have to drive instead. The only problem is it takes longer to drive due to traffic, plus it’s raining, which means you'll have to wake up at 6:30am to make it on time.

As your phone is IoT connected it knows your train has been cancelled, and as a result has reset your alarm and worked out a new travel route, keeping in mind traffic and weather conditions, all the while you've been sleeping.

The environmental sensors outside have also detected it's cold and have turned on the heating, so when you get out of bed and walk to the kitchen you're nice and warm. Your fridge will not only tell you what’s inside, but also what you can make based your mood and the kind of day you have planned, thanks to your calendar and the biosensors on your smartwatch.

As for how many objects could be connected, any device with an on and off switch to the internet can be part of IoT - and chances are they will be. The latest version of Internet Protocol (IPV6) creates more potential addresses than there are atoms on the surface of the earth.

As the price of sensors and communication continue to fall, virtually endless opportunities will be created in a world already filled with sensors and data, reacting and changing at any moment depending on our needs.

We're at the stage of seeking to understand what these opportunities are going to be, how they will impact our lives and how IoT interacts with us. This is more than technology, it's altering reality as we know it.