



Secret language of devices, presented by Lauren Laverne.

Computers describe objects in the world by giving them a digital identity. But to have real power, the language of computer code needs a more fluid way of naming things in different situations and in conversations between different devices.

The conversation that goes on between your car and its key fob is a great example.

The car and its key fob both share a digital ID. When I press the button, the signal is broadcast in all directions, looking for my car.

Once it's worked out who it's talking to, the fob and car shake hands. The fob then sends out an instruction to the car. It's encrypted with a secret key. The message contains a counter which keeps tabs on the number of times the key fob and car have communicated.

Using the same secret key as the fob, the car decrypts the message. If it finds a counter that matches its own, it carries out my instruction.

All this in a fraction of a second – thanks to a private conversation between my car and my car key.

Now if you take these digital objects and their descriptions and give them instructions, you can get code to do stuff. And that means taking control of things in the real world.

You might find it's easier than you think...