

RUTH ALEXANDER: Our lives are dominated by data. Weather forecasts, stock market reports, accident black spots- all are tracked and analysed with numbers, sets of numbers recorded over time. And these data sets are powerful. Not only do they help us see patterns and trends, they influence the behaviour of governments, organisations, and individuals. Data is at the centre of political debate and scientific arguments. We're bombarded with data findings from every angle, and yet rarely do we get to find out how those results were achieved.

But it is possible to find out. Increasingly, government departments and services and other organisations are opening up to scrutiny the data they use for policy-making and decision taking. They're often made available as open data that can be freely and even commercially reused. As a journalist, I've found so many stories from numbers. Journalists tend to think of themselves as wordsmiths and people who like to communicate. But numbers can be the best communicators. It often pays to tear your eyes away from what's written in a report or a press release and just look at the numbers.

This course will empower you to work with open data so you can start to find stories and patterns in amongst the numbers you choose to investigate. Traditional methods of working with data often employ spreadsheets. But spreadsheets can rapidly become complicated. And that can lead to errors.

We'll show you a more powerful approach- coding. You'll learn to write computer code using the Python programming language and do some simple data analysis with interactive notebooks. You'll be analysing real data with tools used by scientists and data professionals. By the end of the four weeks, you'll be able to find and download data sets, clean and combine data, compute simple statistics, display your results as charts, and share your insights. We hope this introductory course will pique your curiosity to find out more about this world by looking at open data through the powerful lens of coding.