

Research Skills for the World of Big Data

A five-day workshop teaching practical computer programming skills for collecting, manipulating and analysing large, web based data sources

April 30, May 2, 3, 7 & 8 2013 (20 credits)

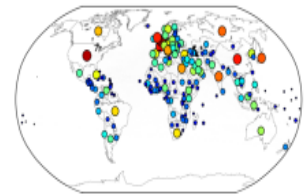


Co-organised by Dr. Jonathan Bright and Prof. Alexander H. Trechsel

Co-sponsored by the SPS Department and the European Union Democracy Observatory (EUDO)

For further information and registration please contact: jonathan.bright@eui.eu

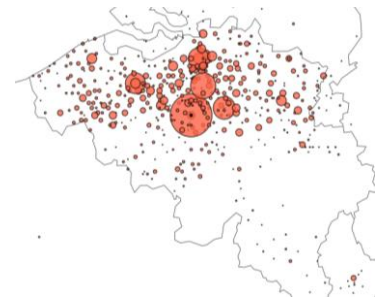
The rise of what is sometimes called “big data” presents a huge opportunity for social scientists. The amount of information available to researchers is growing exponentially: a recent study estimated that in 2010 the quantity of digital data in the world exceeded one trillion gigabytes. Significant portions of this information are available for free for use in research: through developing standards of ‘parliamentary informatics’, government drives towards ‘open data’, or open access protocols to private services such as Twitter and Google.



This flood of data creates a wealth of opportunities both to test and refine existing theories and to create new ones about the way social life works. However, while it might be available for the first time, much of this information does not come prepared and ready to plug into a statistical analysis package. To fully take advantage of the opportunities provided by big data, social scientists will increasingly require the ability to “program”: to

instruct their computer to understand this information, to capture, analyse and format it, and to put it to use.

This course is intended as an introduction to this type of practical data handling and computer programming, geared towards data collection, manipulation and storage on a large scale, and created specifically with the needs of social scientists in mind. **The workshop is open to all students at the EUI and is specifically aimed at beginners with no previous programming experience.** The aim will be to convince even those who think of themselves as computer “illiterate” that basic programming ability is both a vital part of a researcher’s skill set, and something that is within their grasp.



Structure

The workshop is divided into two parts. April 30th is a day dedicated to the discussion of the challenges and opportunities presented by big data research methods, led by experts in the area from Europe and the US. They will primarily focus practical, real-world examples of novel big data collection techniques and handling of such data in the social sciences. The rest of the time is dedicated to a practical workshop teaching computer programming skills in the Python programming language. In the morning of each day lab sessions will be held exploring some fundamental programming concepts and getting researchers to work on them on their own computers. The afternoon sessions serve for the discussion of researchers’ specific challenges or for catching up on things that weren’t clear in the morning.

