



ERC Research project

“The epistemology of data-intensive science”

www.datastudies.eu

Project goals

Funded by the European Research Council, this project investigates methods and results achieved through data-intensive research across a variety of scientific fields, so as to improve understanding of how research practices are changing in the digital age. We are interested in how recent developments in data generation, dissemination and analysis are affecting the ways in which scientists produce knowledge, and specifically in how online databases are deployed to make data widely accessible, visible and useable.

Research Team and Areas of Interest

The project is based at the Exeter Centre for the Study of the Life Sciences, at the University of Exeter. It investigates data handling practices across three main research areas: plant science, studied by project PI Sabina Leonelli; biomedicine, studied by research fellow Niccolo Tempini; and oceanography, studied by PhD student Gregor Halfmann. Results from each area will be compared with each other and with related work by leading scholars working on in other scientific fields (including climate science, archaeology, environmental sciences, economics, sociology and particle physics).

Methods

The research team is conducting in-depth, semi-structured interviews with relevant scientists and practitioners. Scientists are invited to describe their everyday research activities, questions focusing on their experience with data storage, retrieval and interpretation, and the computing and networking technologies used in these activities. Describing context, activity, participants and results of data-intensive science is essential to understanding how research is changing and innovating. Some prominent scientists are already supporting the project by membership of our advisory board, providing access to their facilities and/or their availability for interviews. More help is warmly welcomed. Participation is entirely voluntary and team members guarantee and respect the terms of confidentiality agreed upon in each case.

Background and Publications of Results

Our analysis contributes to scholarship in the history, philosophy and social studies of science, as well as information science and science policy. Project results will be published in journals within these disciplines, on our website and in the form of research monographs. We also aim to submit reports of our results to scientific journals in the areas that we study.

Further information is available from our website or from PI Sabina Leonelli (s.leonelli@exeter.ac.uk).