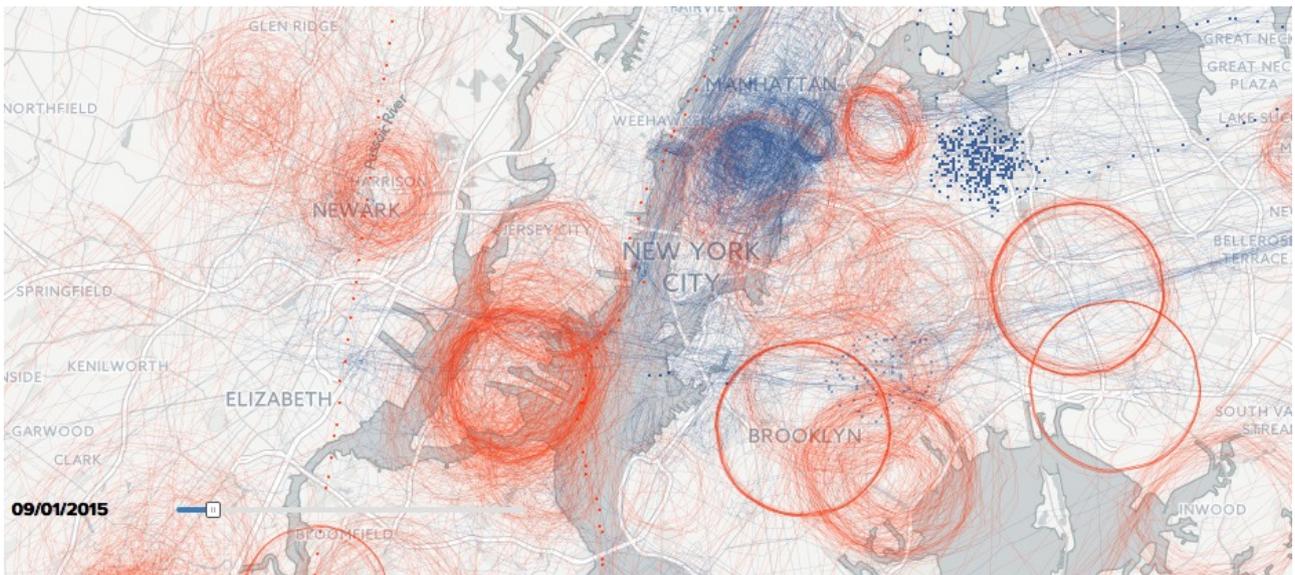


Data journalism has the potential to make reporting on scientific activities and innovation more accountable to society. In this article and podcast, EuroScientist covers the 2016 Data Journalism Award, recently held in Vienna, Austria. Find out more about the winning entries from Spain, Peru and the USA. In these projects, data analysis has helped uncover the varying cost of medicines across borders, the environmental and social impact of commodity mining and the extend of privacy loss due to US surveillance planes, respectively. These examples show how data journalism has the potential to bring scientific analysis to the practice of journalism, ultimately leading to more accountability and transparency in society.



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Data Journalism Awards celebrate evidence-based questioning in our society



Reporting based on the computer analysis of solid data could bring greater transparency and accountability

The ceremony of the 2016 [Data Journalism Awards](#) (DJA) took place at the Vienna town hall on Friday 17th June. It was held during the [2016 GEN Summit](#), the annual meeting of Global editors network (GEN) which gathers editors for online media.

Data journalism is about adopting an evidence-based approach to help critically analyse the data pertaining to issues affecting our lives. This branch of journalism combines the use of various forms of data analysis, design and visualisation leading to greater accuracy in reporting. This approach was pioneered by [Philip Meyer](#), who was one of the first to adopt an approach grounded in the method

of science, including data analysis, to the practice of journalism. Specifically, he used survey research and data analysis to demonstrate that college students were as likely to have attended the 1967 Detroit riot as high school dropouts.

EuroScientist interviewed some of the awardees on how they believe data journalism can improve accountability in our society. Specifically, we talked about data journalism projects questioning issues, which are at the interface between the applications of science and society.

Greater accuracy in journalism

“The thing with data journalism is you can’t say ‘no, what you are saying is not true’,” explains Eva Belmonte, the managing editor of [Civio Foundation](#), a Spanish non-profit investigative journalism organisation focused on political and health issues.

She won a DJA in the category ‘Investigation of the year (small newsroom)’ with her data journalism project [Medicamentalia](#). The project’s objective was to explain the huge discrepancies in the price of medicines sold around the world, which, she believes, are not always justified by the different standards of living between countries.

She believes that data journalism leads to more accurate journalism. “When we are talking about this kind of data, about science data, you need to be more accurate.” Belmonte also explains the value of adhering to a strict methodology to ascertain the credibility of her investigative work. She notes: “and the most important, you publish that methodology.”

Unveiling environmental and social issues

The role of data journalism is even more important in countries where transparency is still lacking. In Peru, for example, “the oil industry and mining are big companies, they represent a big economic power,” explains Milagros Salazar, director of [Convoca](#), a data and investigative journalism organisation based in Lima.

She won a DJA in the category ‘News data app of the year (small newsroom)’ with a project, called [Excesos sin Castigo](#)—meaning [Unpunished Excesses](#)—about the impact of oil and mining industries on the environment and on the lives of the Peruvians living in the Peruvian Highlands and in the Amazon. Her work was based on the analysis of 3,000 documents, including data provided by the Peruvian state. The findings were published in La Republica, the second most important newspaper in Peru.

She notes that the government has difficulty in facing up to the economic power of large companies exploiting natural resources. As a result, citizens and the environment are being seriously impacted. For that reason, I think it’s very important that data journalism shows this problem to the world.” The documentary forced the authorities to be more transparent and to break the silence around these issues. Her work has led other investigative teams to pursue this issue.

Performing a watchdog role

Data journalism cannot be separated from journalism. “I don’t see data journalism and other forms of journalism being separate. I see them being totally intertwined,” says Peter Aldhous, who is a science reporter at [BuzzFeed News](#). He trained as a scientist before becoming a science journalist and editor, previously working at New Scientist and at Nature.

Together with his colleague Charles Seife, science journalist and professor of science journalism at New York University, USA, they won a DJA in the category ‘Data visualisation of the year (large newsroom)’ for a project called [Spies in the Sky](#) about government surveillance planes in the United States. They analysed four months of data of all of the planes over the USA, via a web site called [flightradar24](#). They were thus able to narrow down all planes operated by the FBI and the US Department of Homeland Security. They relied on a software suite and programming language, called R, for data analysis and for statistics data visualisation. They also animated the planes over a map, using a geographic database tool called [CartoDB](#), to tangibly demonstrate how extensive the flights were.

Aldhous’ scientific background has helped him investigate issues he finds interesting, such as criminal justice, mental health, surveillance and mining of personal data by large corporations. He believes that, ironically, science journalists—who are often trained in science and quantitative methods—have not embraced the use of data in journalism. Today, most of the data journalists are people with a background in social sciences.

Data journalism could help make science more accountable. “I do think there’s an enormous amount of potential,” suggesting that examining misconducts—such as manipulation of images or text plagiarism—are essentially data problems. In the same vein, he also quotes the work of [Uri Simonsohn](#), at the University of Pennsylvania, in the USA, who has developed tools to detect so-called [p-hacking](#), such as selective reporting of significant results and bias in statistical analysis.

He concludes: “I think that science journalists could do a great deal to perform a watchdog role in and around science by applying quantitative methods to the analysis of the published literature.”

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