

## 100XCiencia.2

### MOBILE DATA, STATISTICS OF THE FUTURE

- Nuria Oliver started the second day of 100xCiencia.2 held in Alicante, with the conference "Big mobile data for Social Good: opportunities and challenges"
- "Mobile phones are a powerful predictive tool in experts hands", says Oliver

**Alicante, 3 November 2017.** The mobile phone we carry is not only used to send WhatsApp, communicate with our friends and family or do business. Mobile phones are a powerful predictive tool in experts' hands, because they leave a trace that lets you know, for example, how many people have been in a certain place at a specific time.

They are a tool of incalculable value when quantifying variables, much faster than the traditional way of doing studies through questionnaires. Mobile data is the statistical basis of the digital era, with millions of data available to which much can be taken advantage of, without harming the privacy of users, since collective data of calls and encrypted messages are handled.

About this use of the data provided by our mobile phones and its enormous utility in predicting pandemics or measuring poverty, Nuria Oliver, Director of Research in Data Sciences at Vodafone, spoke today at the 100xciencia.2 meeting celebrated in Alicante and that brings together the Centers and Units of Excellence Severo Ochoa and María de Maeztu.

With the title "Big mobile data for Social Good: opportunities and challenges", Oliver has highlighted the advantages of using large amounts of aggregate data to achieve a positive social impact and make better decisions. "In particular, I focus on the data captured by the mobile phone network, with which I have been working for ten years. This information allows us, for example, to characterize the mobility of the population and the number of people in a given region. This is useful when there is a risk of a pandemic, for example, to have more accurate estimates of its spread, or to better dimension aid in natural disasters and affected people", she says.

Oliver described the mobile data as "an unprecedented opportunity in our history as a species, because this type of large-scale questions about human behavior we have not been able to answer it quantitatively until now, because we had to do questionnaires or surveys

and they cannot be repeated very regularly. At present, thanks to technology and the existence of mobile data on human behavior, we approach this type of problem much more efficiently".

However, Nuria Oliver warns that there are still a number of obstacles to overcome when using the data provided by mobiles. "From the technical point of view, we still have to understand whether the data obtained are representative. Combining different sources, such as mobility, location of clinics if it is a case of public health, adds complexity, and it is necessary to check if these data have biases, "he points out.

Other challenges are working in real time to increase the value of the data and "to understand that many times what we are finding are relationships of correlation and not of causality, so we must make a rigorous analysis and not draw hasty conclusions", says Nuria Oliver.

Finally, she referred to social barriers, "there is still a big gap in the ability to analyze this mobile data, because we are a minority that can do it".