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Tourism Statistics: Early Adopters of Big Data?

Session 5. Producing Data on Sustainable Tourism

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Topic addressed:

New (big) data sources with relevance for tourism statistics; towards a modernised system of tourism statistics

The ubiquity of data revolutionises the world of official statistics. Citizens and enterprises leave a constant flow of digital footprints, voluntary or unintended. This data deluge can make it difficult to see the forest for the trees, but big data undeniably has a huge potential for many areas of statistics. The arrival of big data also changes the statisticians' working environment. They no longer hold a monopoly to producing statistics but now compete with a wide range of data producers. Ignoring innovation will push statistical authorities out of the information market, an evolution that can jeopardise the critical role of independent, official statistics in any democratic debate.

Many sources of big data measure flows or transactions. Within the wide range of statistical domains, tourism statistics is in the frontline of big data related innovations of sources and methods. Indeed, tourism statistics tries to capture physical flows of people – as well as the accompanying monetary flows – and big data provides promising new sources of data and previously unavailable indicators to measure these flows (and stocks).

This paper gives an overview of the different sources of big data and their potential relevance to compile tourism statistics. The discussion includes the opportunities and risks that the use of new sources can create: new or faster data with better geographical granularity, synergies with other areas of statistics sharing the same sources, cost-efficiency, trust of users, partnerships with those organisations holding the data, access to personal data, continuity of access and output, quality control and independence, selectivity bias, alignment with existing concepts and definitions, need for new skills, etc.

The global dimension of big data and the transnational nature of companies or networks holding the data necessitate a discussion in an international context, even if legal and ethical issues often have a strongly local component.

Keywords:

Big data, tourism statistics, innovation