Cloud Based Big Data Analytics for Smart Future Cities

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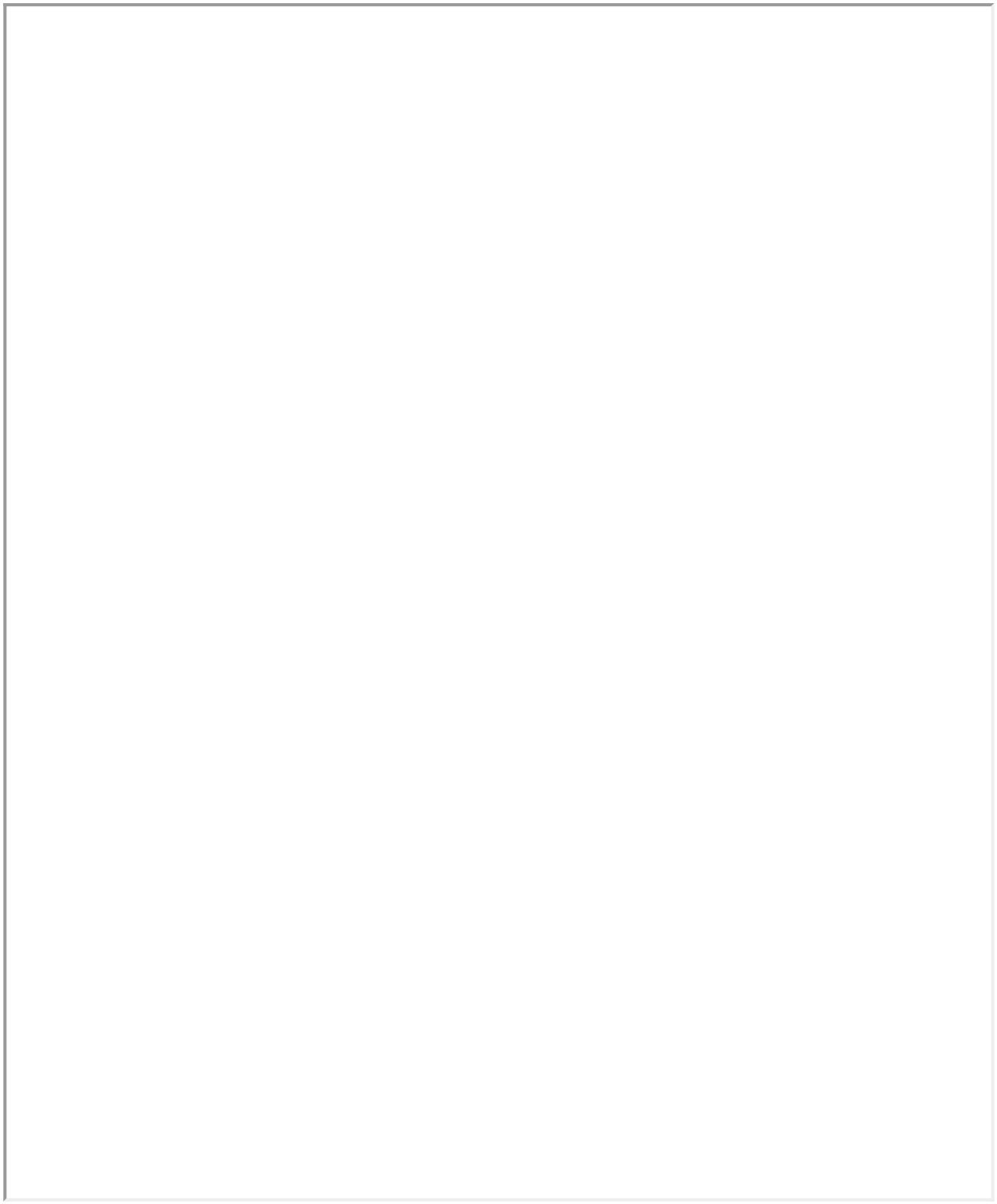
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Why did we conduct this research?

Huge sets amounts of data are being generated and used on the cities' daily basis, be it for environmental, meteorological or transport-related issues amongst many, many others. Nevertheless, the potential increase in the collection and processing of such data seems too much to handle in little too time for the traditional approach. The paper calls for a new approach in which data is established in data sets and set with other correlating ones, as to gain a broader perspective and be able to identify the real needs through the correlated information.

Key findings:

- Big data analytics can provide excellent input about real-time necessities within a city, nevertheless such has to be done with extreme care when collecting, preparing and semantically linking the data.
- Need to engage with domain experts in order to pinpoint basic relationships and dependencies between different data elements (importance of establishing relationships and correlations).
- Creation of MapReduce as an exemplification how cloud infrastructure can be used to analyse a sample set of Bristol Open Data.



Reference:

Khan, Z., Anjum, A., & Kiani, S. L. (2013, December). Cloud based big data analytics for smart future cities. In *Proceedings of the 2013 IEEE/ACM 6th international conference on utility and cloud computing* (pp. 381-386). IEEE Computer Society.