

Exploration and analysis of massive mobile phone data : a layered visual analytics approach

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Abstract

We present a system for the exploration and analysis of massive mobile phone data that enables users to gain insight. First we identify user tasks and develop a system following a visual analytics approach by tightly integrating visualization, interaction and algorithmic support. The system is then evaluated by exploring a massive mobile phone data set containing 2.5 billion calls and SMS exchange between around 5 million users located in Ivory Coast over a period of 5 months. From the use cases a number of findings are gathered, such as localized increase and decrease of calls due to major events. Keywords: Mobile Phone Data, Visual Analytics


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