

Free article review on cellular census: explorations in urban data collection

[Business](#), [Industries](#)



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Section 1: Summary

The article Cellular Census: Explorations in Urban Data Collection was published by the IEEE Computer Society during the July-September 2007 period. It was written by Jonathan Reades, Francesco Calabrese, Andres Sevtsuk, and Carlo Ratti. The article looks into a possible modern way of using mobile phone devices to collect spatiotemporal data. This new way of collecting data particularly from the urban areas is a break from the past methods of data collection such as surveys by person or phone. Urban analysis can be conducted using mobile device data gathered using this new method. However, there has been little steps undertaken in terms of research develop and analyze the much bigger samples of available data produced every day by mobile networks (Reades, Calabrese, Sevtsuk and Ratti 30).

The explanation for lack of research in the analysis of data using mobile devices is behind the challenge of data sharing with the telecommunications industry which has acted as the barrier for data access (Reades, Calabrese, Sevtsuk and Ratti 30). This article looks into a research investigating the

collaboration of two mobile service provider companies; Telecom Italia and MIT's Senseable City Laboratory to allow access of the aggregate mobile data from the city of Rome (Reades, Calabrese, Sevtsuk and Ratti 31). Therefore, this research allows the researchers to the investigators to analyze the Rome Metropolitan City through urban dynamics with the help of the mobile phone data from the city of Rome. The findings of the study revealed that the preliminary findings can deliver a significant way of analyzing the city of Rome which proved to be a holistic as well as a dynamic method.

Section 2: Review

The use of mobile phone devices to analyze an urban setting like the Rome city provides a number of advantages such as; the use of mobile phone devices to collect data provide a very significant new method of analyzing a city as a holistic, dynamic system (Reades, Calabrese, Sevtsuk and Ratti 32). The tradition methods of collecting data such as the use of surveys give a lot of information concerning the urban behaviors but they do not give up to date information and at times they limit results of the data. The new method of mobile devices data analysis provides updated information and does not limit the results of the data analysis of the data collected.

On the other hand, collecting data using mobile device has its own disadvantages too. One of the disadvantages includes the challenge of data sharing within the telecommunication industry. There is lack of sufficient sharing of data within the industry creating a barrier to the access of the available mobile devices data. If there were easy access to the available

data through mobile devices, then this method would be popular among urban settings. The method also faces challenges of working with the Erlang values due to the operational challenges. The GSM masts are sporadically distributed as well oriented.

Section 3:

The use of mobile devices for data collection proves to be a better and appropriate of collecting urban data. However, the limitations and challenges facing the collection of data using mobile devices make the method difficult for use particularly in urban centers where it has never been used previously. If the challenges are overcome through the use of the collaboration of telecommunication firms in the industry, the use of mobile phones to collect data would far surpass the traditional methods of data collection in urban centers. Indeed the new method provides a very important new method of analyzing a city as a holistic, dynamic system.

Works Cited

Reades, Jonathan, Francesco Calabrese, Andres Sevtsul, and Carlo Ratti. "Cellular Census: Explorations in Urban Data Collection." *IEEE Computer Society* 6. 3 (2007): 28-38. Web. 14 Dec. 2013.