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## Effective Optimization of Billboard Ads Based on CDR Data Leverage

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### Abstract

Call Detail Records (CDRs) provide metadata about phone calls and text message usage. Many studies have shown these CDR data to provide gainful information on people's mobility patterns and relationships with fine-grained aspects, both temporal and spatial elements. This information allows tracking population levels in each country region, individual movements, seasonal locations, population changes, and migration. This paper introduces a method for analyzing and

exploiting CDR data to recommend billboard ads. We usher by clustering the locations based on the recorded activities' pattern regarding users' mobility. The key idea is to rate sites by performing a thorough cluster analysis over the achieved data, having no prior ground-truth information, to assess and optimize the ads' placements and timing for more efficiency at the billboards.

Please refer to PDF download for the full paper.

#### Article PDF:

527-semassel-article-v10n2pp76-95.pdf <sup>[6]</sup>

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