

ベンチャー体験工房 3



Developing a Novel Pattern Mining Model to Discover Hidden Patterns in Fukushima Traffic Congestion Big Data



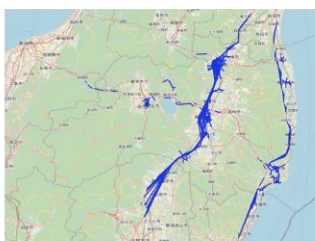
Interested to work on solving core AI challenges?
Discovering hidden information in Irregular Big Data

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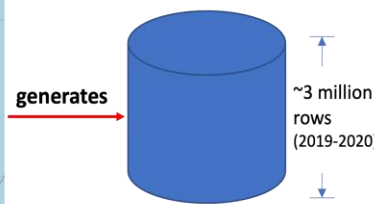
概要

- Japan Road Transportation Information Center (JARTIC) has set up the sensor network to monitor traffic congestion in Fukushima.
- Each road-segment in this network generates data at every 5-minute interval.
- Previous year, we have developed a data warehouse technology that generates data frames at 10 times faster than the state-of-the-art.
- This year, we plan to develop a novel pattern algorithm to discover hidden patterns.

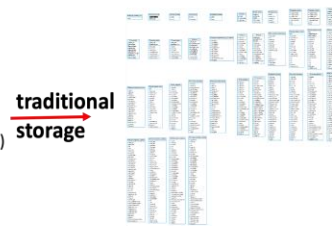
実例



(a) Road sensor network of Fukushima prefecture



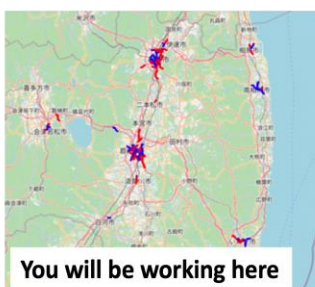
(b) 5 min. interval traffic congestion data



(c) JARTIC schema

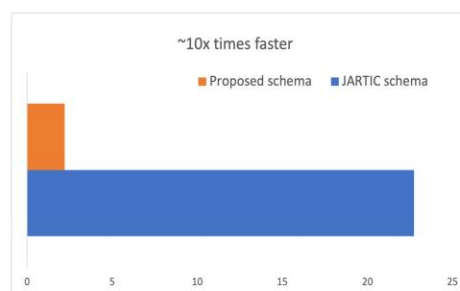


(d) Slow and cannot handle big data app requirements



(g) Faster discovery of competitive information in big data at low cost.

benefits
real-time big data analytics is feasible



(f) Transactional databases for machine learning tasks can be generated 3 times faster

Performance evaluation



(e) Novel schema optimized for big data app needs