

Researchers use data from traffic app to identify high frequency accident locations

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Ben-Gurion University of the Negev (BGU) researchers reveal that data culled from geosocial networks like the GPS traffic app Waze can help prevent traffic incidents with better deployment of police resources at the most accident prone areas.

"Only now are we beginning to discover the potential in the huge amount of data collected daily," explains BGU researcher and Ph.D. student Michael Fire. "Studies of this kind, which monitor events such as [traffic accidents](#) over time, can help the police identify dangerous sections of roads in real time, or alternatively, locations where few police are needed."

The paper, "Data Mining Opportunities in Geosocial Networks for Improving Road Safety," was presented at the IEEE 27th Convention of Electrical and Electronics Engineers in Israel.

Waze records [location data](#) and enables users to upload and share comments on any detail, including traffic alerts, accidents or police presence. According to its Web site, Waze has 30 million worldwide users and describes itself as "a community-based traffic and navigation app whose users share real-time traffic and road info, saving time and gas money."

Using Waze data and [Google](#) Earth, the BGU researchers determined that three-quarters (75 percent) of the locations in Israel with the highest number of accidents were intersections. They then analyzed references

to a police presence to determine if the police were present at the spots that had the worst traffic accidents.

"There were numerous instances where the police were manning quieter intersections, while busier intersections went unmonitored," Fire explains. "According to the data, police response time varied from 20 minutes to 40 minutes in some situations."

Using Waze, data from May and June 2012 was collected and analyzed on accident reports, police presence, [traffic jams](#), and [speed traps](#). BGU researchers identified 579 different locations in Israel that had at least five reoccurring accidents during this time where 5,156 reported accidents occurred. [Police](#) were reported at least 15 times at more than 3,500 locations.

Provided by American Associates, Ben-Gurion University of the Negev

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