Warnings to texting pedestrians may not eliminate risks, but they can help

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Human factors researchers at the University of Iowa have been looking at ways to harness technology to prevent fatalities among pedestrians who are struck by vehicles while texting. In their latest study in *Human Factors,* "Harnessing Vehicle-to-Pedestrian (V2P) Communication Technology: Sending Traffic Warnings to Texting Pedestrians," Pooya Rahimian and colleagues simulated a busy roadway to determine whether sending loud warning sounds to cell phones when texting pedestrians attempted to cross an unsafe gap would result in safer crossing behavior.

Examining their results from more than 300 road-crossing trials in a 3-D immersive pedestrian simulator with 48 male and female participants, the authors concluded that the warnings were somewhat effective in mitigating distraction from texting. The group of texting pedestrians who received the warnings were more cautious overall relative to their counterparts who did not receive the warnings.

However, Rahimian et al. were concerned to discover that even after receiving a warning, people never reversed course once they had entered the roadway. This is consistent with other research showing that the brain has difficulty stopping actions once they are initiated. Texting pedestrians in the warning group also spent less time looking at traffic, possibly indicating an overreliance on the alerts.

"Real-time information about when roads are safe or dangerous to cross could aid pedestrians in making good crossing decisions," the authors

note. "However, there are significant challenges in the development of sensor technology to reliably and accurately measure traffic conditions and movement initiation in time to prevent collisions."

New sensing and communications technologies offer tremendous possibilities for improving road safety for pedestrians and bicyclists. However, additional research is needed to determine how and when roadway information can most effectively be given to vulnerable road users.

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