

When do drivers use their mobile phone?

An analyses of the context of mobile phone use based on naturalistic driving data

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Abstract

Mobile phone use, in particular smartphone use, has become increasingly popular over the last decade. The smartphone adoption rate has surpassed that of any other consumer technology in history. Some argue that the 'smartphone revolution' might be related or even responsible for the stabilising or even increasing traffic related fatality and injury rates across countries in Europe. Therefore it is important to better understand how, how often and when drivers use their mobile phone in everyday traffic.

Based on Naturalistic Driving data of 21 participants, this paper presents analyses of frequencies and durations of mobile phone use while driving. A distinction will be made between mobile phone conversations and other manual and visual-manual interactions with the mobile phone. The main focus of the paper will be on the driving context of mobile phone interactions. In what driving contexts do drivers engage in interactions with their mobile phone? The paper will explore if there is a relation between mobile phone interactions and driving context factors. Contextual factors examined will include: road categories, legal speed limits, actual speed, trip length and time driven. The results of this study will be discussed in relation to traffic safety and recommendations for future research.