Using Technology to Better Understand Young Driver Behavior and Prevent Risk

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Traffic-related crashes are one of the leading causes of injuries and deaths in teenagers and young adults globally. Developments in technology have contributed to a better understanding of human behavior and the prevention of driving risk. Nonetheless, the most successful technology requires proper employment by the user. This talk will focus on the benefits and challenges linked to the development and use of technology to understand and prevent driving risk. In particular, examples from the development of a new driving simulator by our multidisciplinary research team (including experts in computer programming, mechanical engineering, and behavioral science) will be discussed. Two questions related to the use and challenges posed by new in-vehicle technology will be also addressed using several examples from our work or collaborations and the literature: 1) Does in-vehicle technology to reduce risky driving in teenagers work and how? 2) Does in-vehicle technology to prevent drinking and driving work when young adults are under the influence of alcohol (0.05% and 0.08%)? A discussion concerning the benefits and downsides of a multi- and interdisciplinary approach in the development of new in-vehicle technology will conclude the presentation.

Bio: Dr. Marie Claude Ouimet is an assistant professor at the Faculty of Medicine and Health Sciences at the Université de Sherbrooke, Longueuil, Quebec, Canada. Her main research interest is injury prevention, especially in relation to alcohol impairment, young drivers, neurobiological markers of risk, and new technologies for driving risk assessment and prevention. She received her doctorate from the Université de Montréal, Quebec, Canada and was a post-doctoral and research fellow at the National Institutes of Health in Bethesda, Maryland. She was awarded a prestigious junior career award from the Fonds de la recherche en santé du Québec [Quebec Health Research Funds]. She is also the co-director of the Canadian Institutes of Health Research Team in transdisciplinary studies in driving while impaired onset, persistence, prevention, and treatment.