Developing a Bicycle Attached Device for Manipulating Riders Attention for Increased Safety

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This project's goal was to create a ‘bicycle-attached-device’ to combat the most relevant Risk Factor in traffic, namely ‘attention in traffic or a lack thereof’ This risk factor, accounting for approx. 50% of all fatal bicyclist accidents in Denmark, resulting in 5 times more likely fatal accident to occur for a cyclist, compared to a motorist. Our goal was then set to create a device that could reduce the need and want of cyclist to perform distracting and dangers behaviors while cycling and keep the attention on the road, to increase the safety of bicyclist. We identified young people were inclined to use their phones to perform a mundane task, like controlling radio volume. By giving the cyclist more tools at their disposal for dealing with such issues, while at the same time reducing the required attention to perform such actions, a net attention boost was obtained. Other risky bicyclist behaviors were collected, studied and ranked based on a multitude of factors, including cost, safety issues and the possibility of implementing them into a device. All features were tested by potential users and added to the device, did they meet said criteria. This list of users tested features was package into our working prototype. This, together with other features not yet implemented, and insights into the future of safety enabling bicyclist devices, we hope to reverse the status quo of associated high risk and cost of cycling, as the potential benefits are major: With the United States leading with a total of over 900 fatal accidents and 494.000 emergency department visits just in 2013 due to bicycle-related injuries, resulting in a combined cost and productivity loss of approx. 10 billion USD.

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