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## THE PERCEPTION OF MESSAGES THAT ENCOURAGE MODAL SHIFT

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### **Short Description**

The presentation focuses on the perception by car drivers of incentive messages about public transport and cycling. Those messages are displayed on a Travel Planner app. Their text and graphical interface are based on several hypotheses. We studied impacts of these messages on Travel behavior change through Focus Groups.

### **Main part**

We carried out an experiment based on Personalized Travel Planning (PTP) and the transtheoretical model (TTM). According to Prochaska and DiClemente (1983), travel behavior change is a 5-stages process (Precontemplation, Contemplation, Preparation, Action, Maintenance). We targeted car drivers reluctant to change (Precontemplation) and those who have mixed feelings about changing (Contemplation). The authors claim that one of the processes of change that facilitate the transition to the next stage is awareness rising about pros and cons of car and sustainable transport. We designed a broadcasting system for incentive messages based on Personalized Travel Planning. These messages are delivered in a targeted and contextualized way on a Travel Planner app named Emily. They focus on the benefits of public transit and cycling. The text and graphical interface of these messages are designed based on 4 hypotheses. (1) With a relevant contextualized message, users can project themselves into the use of the promoted sustainable transport. (2) Message acceptance increases with positive communication. (3) Selected arguments in favor of each sustainable transport are seen by users as a benefice they could access by changing their travel behavior. (4) The text and picture in the message lead users to deeply reconsider sustainable transport. The message delivery system was tested on some 100 car drivers. It aimed to test the impact on travel behavior change. This experiment is complemented with a Focus Group study to understand the impact of our 4 design hypotheses on message perception.

### **What is new?**

A system to broadcast incentive messages in Travel Planer apps has been developed. Taking full advantage of smartphones possibilities, messages are targeted according to user profiles and contextualized according to the requested route. Messages were designed in a very visual way. The few experiments that also rely on Travel Planner app do not used pictures. Using images highlights the difference in perception depending on journey context and individuals' stage of change.

### **What is transferable to other cities and regions?**

The message delivery system can be used in other cities and regions. Through an API, the system can be integrated in an existing Travel Planner app. The underlying principles used to design text and graphical interface of the messages also apply. However, arguments and pictures will have to be adapted to the local context.

### **What are outcomes and conclusions?**

Message perception depends on individuals' stage of change. For example, a message perceived positively by a person in Preparation may be perceived negatively by a person in Precontemplation. The most advanced people in the stage of change process like messages with a nice picture and arguments about experience and feeling. On the other hand, people the least advanced in the process prefer information-based messages with rational arguments and no images.

**Who are the main target groups?**

The main targeted groups are people in the first two stages of change. They are car drivers who are reluctant to change (Pre-contemplation) or hesitant (Contemplation).

**And what now? - what will change? - what is the relevance for the future?**

The Covid-19 situation accentuates the relevance of contextualized and individualized messages that take into account crisis (epidemic, terrorist attacks, strike...) and individual's stages of change. For example, it is not relevant to promote public transport to a person who is reluctant to change (Pre-contemplation) during a crisis period, but a public transport user (Maintenance) might need advice on how to travel temporarily in another way.

These crises show the importance of understanding how to communicate to encourage modal shift. It helps to encourage a shift to other modes of transport such as cycling and to restore confidence in a mode that has been severely disrupted, such as public transport.