A travel app to make you—and your environment—feel better

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Credit: AI-generated image (disclaimer)

Did you ever find yourself wondering what would be the quickest, healthiest and least costly transport options for a trip? Thanks to the SUNSET project and its 'tripzoom' app for Android and iOS, making the most efficient travel choice in real time is now within your reach.

An increasing market penetration by tablets and smartphones, combined with the success of social media, means citizens can now access a great deal of real-time information. Want to find out about traffic jams, delays in public transport departures or simply track down the quickest way or transport mode to get to work? An app, designed for our mobile devices, could enable us to access and share transport-related information and experience - helping us to better organise our daily life in the urban environment.

Stakeholders and policy-makers are increasingly considering how to empower European city dwellers to enhance their quality of life across the EU. In Belgium, Germany, Greece, the Netherlands and the United Kingdom, for instance, the app 'FixMyStreet' allows citizens to report potholes, broken street lights and similar problems with streets and roads to their local council or responsible body.

In a similar manner, the FP7-funded SUNSET project aims to provide information on, and incentivise smarter travel choices. Kicked off in 2011 by nine partners from four different countries, the project is developing 'tripzoom', an app with ambitions to reduce congestion, increase safety, protect the environment and increase individual well-being in European cities. research*eu results magazine interviewed Marcel Bijlsma, SUNSET project coordinator, to find out how SUNSET is helping the creation of 'smart cities'.

What are the main objectives of the project?

The yearly growth in demand for urban transport systems is causing safety, economic and environmental concerns. SUNSET is helping to alleviate these concerns by taking a new approach to urban mobility management using the latest ICT technologies. The project is about cooperation, by sharing travel information and providing positive incentives for travellers, road authorities and others to 'make the smart

travel choice'.

To achieve this, we are developing social network services that inform people in a personalised way on their travel alternatives, allow travellers to optimise their route, inform them on how to reduce the impact of mobility on the environment, and allow them to set and monitor personal objectives regarding increased individual safety, reduced travel times and costs, improved comfort, and better health.

What is new or innovative about the project and the way it is addressing these issues?

SUNSET is using three living labs, in the cities of Enschede (NL), Gothenburg (SE) and Leeds (UK), to validate the project innovations and measure their impacts in real life. It is an innovative project for three main reasons. First, SUNSET provides personal incentives to make the 'smart travel choice': we have developed an app called tripzoom, a 'logbook' which provides the traveller with insight into his or her mobility profile, actual travel behaviour and its impact in terms of travel costs, CO2 footprint and calories burned.

Then, SUNSET will build real travel-related communities by allowing individuals to share (part of) their mobility profile on social networks to inform, share experiences with, impress or challenge their friends, family or colleagues. Lastly, SUNSET makes travel a positive experience by allowing individuals to share (part of) their (anonymised) mobility profile with road authorities, and public or private transport-service providers, in return for positive incentives such as premium information, services or rewards.

The dynamic nature of the system means that information, travel advice and incentives can change and respond to changing circumstances during a journey or over longer time spans, such as a week or a month. This

allows for informed decision-making on sustainable mobility by the traveller, by directly providing incentives (additional information, offering a restaurant or a reduced rate for public transport), influencing objectives (like a healthy lifestyle), or influencing preferences (based on reviews and experiences shared on social media).

What drew you to research in this area?

We believe that a people-centred approach, rather than the more traditional focus on infrastructure or modality, can create new cost-effective and flexible solutions to the complex challenges in urban traffic and mobility management. The 'people-centred mobility' approach puts users at the heart of the transport system in terms of needs, priorities, data flows and dynamic responses. It represents an enormous opportunity for the integration of a 'user-led' and individualised approach with the inevitable wider societal ('top-down') objectives in terms of sustainability, health and well-being, equity, safety and economic benefits.

What are some of the difficulties you have encountered and how do you solve them?

We are working here with a new paradigm that raises questions and includes difficulties on different levels and in different areas. First of all, we developed a system that is capable of automatically measuring a traveller's trips 24/7 as they use their smartphone, deduce their trip modality accurately and at the same time preserve battery power. This requires challenging technological innovations in smartphone sensing and data handling.

Secondly, there are important issues in terms of privacy, for instance regarding the tension between individual privacy and the sharing of information on social networks or with authorities, and the tension

between the public-service aspect of transport systems versus the potential for commercialisation.

Thirdly, we had to analyse the extent to which city transport providers are ready to work and relate to information coming from the broader public. SUNSET entails changes in the central control of information along with an empowerment of ordinary people in transport governance, and hence a revised relationship between transport providers and travellers.

What are the concrete results from the research so far?

In the first two years of the project, we have designed and developed the tripzoom app in close collaboration with potential end-users and the ICT infrastructure behind that. The app is available in the Apple App store and Google Play by registering via www.tripzoom.eu.

Moreover, up until now our research has provided concrete clues on what types of incentives are most valued by our target groups. Finally, a start-up company has already been created which will bring SUNSET-like personal and social mobility services to the commercial market.

How do you expect your research to help decongestion in cities?

Decongestion is a core objective of our project. We believe that a people-centric approach can make a real difference in influencing and supporting people in making the smart travel choice in a flexible and cost-effective way. Our objective is to reduce rush hour traffic by 5% in the three living lab trial cities.

What are the next steps of the project, or next topics for your research?

We have now entered the last phase of the project, which is validation of

the SUNSET tripzoom app and the concept of incentives in our three living lab cities. We are currently performing several communication campaigns in these cities to market tripzoom and develop the growing user base.

In the end, that is the main parameter for success, as users are the key to reaching our city-level objectives in terms of congestion reduction, sustainability, safety and well-being.

More information: Novay www.novay.nl/en/

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