

PROJECT

Bike'N'Play

Persuasive integration concepts of bicycle mobility data in computer games of different genres

Persuasive Integrationskonzepte von Fahrradmobilitätsdaten in Computerspiele unterschiedlicher Spielgenres

Funding: National (Austria)

Duration: Jul 2015 - Dec 2017

Status: Complete



Objectives:

The project Bike`N`Play develops gaming approaches for the integration of cycling data into popular computer games of different game genres. By utilizing existing games, the target group of non-cyclers can be reached and motivated to start cycling. The main aspects for the success of the project proposal and its continued utilization are the application and advancement of innovative interaction platforms (wearables), the development of gaming approaches for different persuasion and player types, and the conception of interfaces that enable games manufacturers to integrate mobility data into their games.

Due to time and comfort issues, many people are used to more passive forms of mobility, such as driving or using public transportation, for their everyday routes. Active forms of mobility, such as cycling, do not only have advantages in terms of environmental considerations, but also in terms of health benefits for the rider. Individuals that exhibit passive mobility behaviour are difficult to reach using common measures (e.g. smart phone applications, starting a pro-cycling campaign) due to the fact that they would have to have an initial willingness to cycle. For this reason, Bike`N`Play utilizes an activity which is not directly related to cycling and which a broad user group does just for fun: computer gaming.

By connecting the cycling activity with popular computer games, even users with passive mobility behaviour can be reached, and their behaviour -in terms of persuasion -can be converted towards a more active way. For this purpose, popular computer games of different game genres are analysed, and game design concepts are developed that show how cycling can be integrated into games like this in a reasonable and motivating way. In Bike`N`Play, three further focus areas are set that are crucial for the success of the Project and the ongoing dissemination and utilization of the project results. First, new, suitable interaction methods for users need to be developed. Therefore Bike`N`Play investigates platforms such as wearables (e.g. smartwatches) recently launched on the market and develops interaction concepts suitable for the given project content. In this case, safety aspects are very central for using interaction systems in the context of cycling.

A further focus is reaching the largest possible user group. As individuals differ in terms of their preference for specific games and their persuadability by different persuasive strategies, three to five game concepts will be developed in Bike`N`Play which are personalized for different user groups. The last focus area targets the prospective dissemination of the developed concepts. To be able to record and process mobility data in a suitable way, Bike`N`Play works on interfaces that enable games manufacturers to use that data for several actions in their games.

All project activities will be conducted as part of a user-centred design process and in close cooperation with the target group. Therefore, potential users will be involved iteratively in the requirements analysis, game design workshops, formative evaluation and proof of concept with qualitative and quantitative methods. For evaluation purposes, the developed game concepts will be transferred into mock-ups. A running prototype will not be developed in the project; a possible implementation in a future project will be prepared in the context of networking activities with game and mobility services providers as well as other suitable exploitation activities.

Parent Programmes:

[MOTF - Mobility of the Future](#)

Institute type: Public institution

Institute name: FFG - Die Österreichische Forschungsförderungsgesellschaft

Funding type: Public (national/regional/local)

Other programmes: MdZ - 4. Ausschreibung 2014

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Technologies:

Cycling measures
Measures to promote cycling

Development phase: Research/Invention

STRIA Roadmaps: Smart mobility and services

Transport mode: Road transport

Transport sectors: Passenger transport

Transport policies: Societal/Economic issues

Geo-spatial type: Other