WeGO: Dynamic ride sharing service – demonstration project

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ABSTRACT

The Flanders Institute for Mobility (VIM), partnered with Touring NV and project contractors Be-Mobile and ‘de Voetgangersbeweging’ (Pedestrian organization in Flanders) are realizing a 2-year demonstration project in the domain of dynamic ride sharing in Flanders. Goal of this project is to fill in the (dynamic) ride sharing gap in Flanders by demonstrating its possibilities and also detecting necessary further development and research opportunities.

Keywords: Ridesharing, carpooling, social network, mobile applications, smartphone

INTRODUCTION

The project finds its origin in the assessment that current carpool applications don’t fulfill their mission: Most carpool databases are static information sources; they only allow rigidly timetabled OD (origin–destination)-inputs. Changes in supply (and demand) are mostly not dynamically alterable.

Only motivated carpoolers are users.

Perception and trust issues complicate carpooling: either a tight schedule has to be followed, or uncertainties regarding the driver/passengers exist.

Being a passenger or transporting passengers in the car is no longer persevered as attractive. By increasing auto-solism, the auto-mobility is reduced in peak traffic moments.

If we succeed to increase the number of passengers per car, we also increase the mobility of all traffic participants (in time and range). Up until now, measures to increase car occupation are not considered in Flanders. These measures contain following aspects:

1. Transition management
2. Communication
3. Technology

Recent developments demonstrate increased interest in ridesharing: Myoto in Flanders, Covoiturage.fr in France, Samenrijden in the Netherlands, Flinc in Germany ... Nevertheless large scaled success has not yet been achieved.

PROJECT GOALS

This project is to be considered as a kickoff project on the research track towards a commercial and successful dynamic car sharing program. The WeGO kickoff project is a technical demonstrator of the basic dynamic ride sharing functionality in Flanders. This includes the organization of a 2-year test period with 2 sets of test users: an intensely followed ‘core’ group of test users that, and in a later stage to be followed by interested volunteers. Two important constraints:

Fitting within current technological knowhow available Budget restraints

These constraints limit the list of specs to be developed in the demonstrator and also the size of the test group. Following accents were given to the WeGO demonstrator:

Focus on demonstrator and technical demo, not on market analysis.

Test group targeting within a restricted area: less need for fully operational social networking functionality and higher probability on a functional demo.

Focus on internet and mobile (iPhone platform only) demonstration.

PROJECT SETUP

The advantage of working with mobility related partners is that the application can take a head start based on their realizations:

Be-Mobile [1]: Touringmobilis application, an internet and multi platform smartphone real-time traffic application, on which users enter their most used OD trajectories for detailed information on their daily commute. This offers WeGO an interesting advantage by being able to reuse these OD’s for ride sharing purposes, without asking participants having to enter the same data about routes again (nor first time registration of personal data).

Go-Mobile [2]: a recently founded company by Be-mobile and the NMBS (Belgian railways), specialized in. Their specialty will be to plan multimodal, real time, traffic optimized route planning. This offers a second advantage: the ability to connect WeGO in a multi modal travel plan.

De Voetgangersbeweging [3]: (pedestrian org.): Apart from the fact that a pedestrian organization offers an interesting pool of passengers for WeGO, they also built the Octopus tool, a GIS based evaluation tool for the home-school commuting in Flanders. This commuting and commuting reporting expertise offers the necessary expertise in monitoring for WeGO.

These partners will create in a 4-phased approach the WeGO demonstrator:

Phase 1: functional analysis
Phase 2: Technical scheme elaboration
Phase 3: Implementation
Phase 4: 2-year demonstration
Phase 5: Project evaluation

The demonstration phase is planned to start in Q3 2011.
LONG TERM GOALS
As explained earlier the WeGO kick-off project introduced here is a first project on the path to a viable commercial product in the Flemish ridesharing market. During the startup process of this project, VIM identified a large number of influencing factors to the CSF (critical success factor) of reaching the critical mass of users (mainly the ride offering parties) necessary to develop a sufficient large pool of potential ride matches. A non-limitative list of examples:

- Reliable social network aspect to identify drivers/passengers.
- Automated ride detection functionality in the application, based on agenda and context determination. Drivers don’t want to manually enter (on the smartphone) every ride they are about to do.
- Interest matching capabilities between drivers and potential passengers.
- Business model for cost sharing: driver side/passenger side.
- Guaranteed ride home.
- ...

Not all of these aspects will be fully covered by this WeGO project. The necessary basic application will be realized, feedback gathered, priority in further developments determined and follow-up projects will start as soon as the needs become clear. This means that during the test period, the follow up projects can be started. Then the core test user group can be further used as feedback.

TEST USER MANAGEMENT

In WeGO we propose to work with 3 possible types of test users:

- Backbone user group: this is a group of ‘volunteers’ found in the partner list, preferably the project coordinators per partner. It is our experience that these people are the best users in the first development phase of a project because the coordinators have to agree on the development path to follow. If they are the test subjects in this phase, they can directly steer their own group of developers and participate in the project coordination meetings without having to count on feedback from others.

- Core user group: this is the most visible group in the testing environment. This group will be equipped with a mobile platform (iPhone) and will thoroughly test and help to fine-tune the demonstrator. This group also receives some compensation for their efforts, in the form of the mobile platform that is at their disposal free of charge. There will be about 50 group members.

Volunteer group: once the core test group has found the projects’ service is stable, there is the option to enlarge the test population with extra volunteers. This group will be able to give voluntary feedback over the web, but is not as intensely followed-up as the core user group.

ECONOMICAL IMPORTANCE

Ridesharing and more important widely adapted ridesharing leads to substantial reduction in travel time and travel costs. Since congestion is one of the main costs in company mobility, there are substantial cost reductions to be realized. Moreover, congestion is one of the main economy slackening factors in Flanders. The Flemish authorities have made it their ambition to make Flanders a top dynamical region in Europe by 2020. Less congestion can be one of the motivating factors to attract (international) companies and investments to Flanders. Three business sectors benefit from WeGO:

- Technology sector: Flanders has some arrears to make up for in the domain of mobile technology. The Belgian/Flemish market of smartphones and mobile data has been handicapped by the ban on tie-in sales of phones and subscriptions. There are very few users that own a smartphone and use mobile data compared to the rest of the world. This also means that there are (relatively) few companies that create mobile services. WeGO can offer them a jump start in this domain.

- Mobility operators: they can benefit by using WeGO as an optimization and market development tool for their services. Public transportation operators can replace the service on non-profitable lines by offering a WeGO alternative. Also as first and last mile solutions added to public transport lines, WeGO can make public transport more accessible. Taxi companies will be necessary in the WeGO concept in order to guarantee rides home. Also WeGO taxi sharing is an option (e.g. the COLLECTO initiative in Brussels).

- Marketing services: if WeGO is to become a non-paying, or entry level non-paying service, the profile created of the WeGO participants in combination with their location and current context can offer marketing and publicity companies the opportunity to create a LBA (location based advertising) or CBA (context BA) service.

REFERENCES
[1] www.touringmobils.be