Find Local Rideshares Quickly via Mobile Phone

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http://www.fraunhofer.de/en/Images/pi61_Openride_g_tcm63-25277.jpg

(PhysOrg.com) -- In spite of rising energy prices, many car drivers in large cities still ride alone. The OpenRide mobile ridesharing service aims to save them money while reducing the amount of traffic and thus the burden on the environment. At the IFA international consumer electronics exhibition in Berlin (September 4 to 9) Fraunhofer researchers are presenting a prototype of their open infrastructure for organizing spontaneous ridesharing opportunities, at the TecWatch technology forum in Hall 5.3.

There is one striking fact about rush-hour traffic - vehicles on the commuter routes tend to be occupied by just one person, even though motoring costs are continually rising. The OpenRide mobile ridesharing

service currently being developed by researchers at the Fraunhofer Institute for Open Communication Systems FOKUS will remedy this situation by organizing ridesharing opportunities spontaneously and conveniently. This will not only save costs but also help the environment by reducing the amount of city traffic. The OpenRide project is funded by the German ministry of economics and technology under the EXIST program.

The system developers are paying particular attention to functionality and user friendliness. Users will open the application on their cellphone and select from a menu the options for offering or looking for a ride. They then enter the starting and finishing points, as well as the number of places available or required, and send the enquiry to the OpenRide server, where a search engine for intelligent route matching compares the offers and requests received. The search not only takes the starting and finishing points into account but also partial journeys in between. The minimum lead times required by conventional ridesharing schemes are rendered superfluous by the mobile solution.

Drivers can offer lifts spontaneously on OpenRide from their cellphone while out on the road and ride seekers can look for a lift opportunity in their direct vicinity. This information together with the current position is transmitted wirelessly to a server, where a special software program continuously compares offers with requests for rides. Matching offers are displayed in real time on the cellphone with the message "Driver found", stating the name and the probable pickup and travel time. The ad-hoc service even conveys requests for rides placed after the driver has set off. An intelligent search engine takes partial journeys, short detours and the current position of the driver and potential passenger into account. The researchers are also planning to equip OpenRide with a rating system and user profiles to strengthen the trust between driver and passenger.

"OpenRide links mobile terminals with navigation and route planning software to automatically organize ridesharing opportunities," explains Dr. Matthias Flügge, project manager at FOKUS. The mobile ridesharing center is particularly suitable for last-minute journeys in towns and cities. "The system opens up a new market because there is no provision at present for the typical spontaneous and shorter trips that take place in local everyday traffic," says Flügge. "We are using device-independent technologies in order to make the service available to as many users as possible," adds Anna Kress, technical director of OpenRide.

A key feature of the OpenRide infrastructure is the use of open interfaces, allowing the integration of additional partners. This will not only provide end users with a new means of accessing ridesharing centers but also enable network operators and cellphone manufacturers to widen their service offering. OpenRide is on course for market launch next year. Field trials with industrial partners are planned for the end of 2009.

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