

Case Study

Space Needles. Coffee. Real-time Ridesharing.

Background

The Seattle area has long been a breeding-ground for innovative technologies and new ways of thinking. Recently, the “Emerald City” and the state of Washington took the lead in sustainable transportation, with the launch of the world's first major "real-time ridesharing" pilot program.

In 2010, the Washington State Department of Transportation (WSDOT) awarded a Carpool Pilot Project grant to Avego.

This was in answer to notable congestion issues on the SR 520, one of two east-west roadways across Lake Washington, which carries 115,000 vehicles (190,000 people) each day.

In addition, a toll was due to be introduced across the SR 520 bridge in Spring 2011, and it was predicted this external factor would positively influence the uptake of carpooling.

Avego Executive Summary

Customer:



Objective:

Test the viability of real-time ridesharing using GPS-enabled smart phones in a high-volume commuter area.

Solution:

12-month Avego Real-time Ridesharing Pilot for 1,000 commuters over the Seattle-area's SR-520 bridge.

Key Lessons:

- Main factor influencing participation was saving time and money
- Target corridors to build critical-mass (don't cast a wide net)
- Involvement of employers, transit agencies and TDMs builds trust

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Objective

The aim of the pilot was to test the viability and feasibility of real-time ridesharing (carpooling without pre-arrangement) using GPS-enabled smart phones in a high volume commuter area, and by facilitating a micro-payment from riders to drivers based on miles traveled. The project further aimed to provide a sustainable pricing incentive for drivers to share their empty seats with passengers.

The pilot was ultimately split into two distinct phases; Phase I: The State-funded phase from October 2010 to June 2011 and Phase II: the Avego-funded phase from June 2011 to September 2011.

Approach

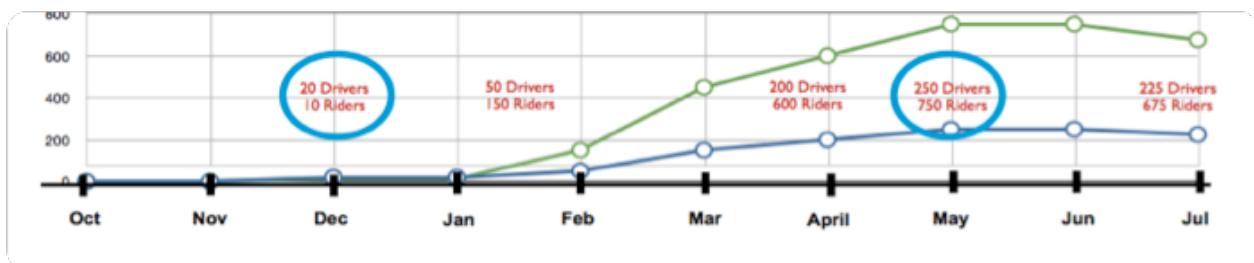
PHASE I: OCTOBER 2010 – JUNE 2011

The period September–December 2010 prepared the pilot for launch and focused on engaging stakeholders, limited beta testing of the Avego real-time ridesharing (RTR) smartphone application and setting up the dedicated pilot website www.go520.org.

In January 2011 the pilot was formally launched on the back of strong local and national public relations (PR) coverage on local television, radio, web and print media and certain national media (e.g. New York Times, Wired Magazine, CNET and TechCrunch).

This phase focused on an East to West (inbound) commute across the SR-520 bridge; target areas included University of Washington campus, Seattle Children’s Hospital and the University of Washington Medical Center.

By April 2011 recruitment targets of 250 drivers and 750 riders were all but achieved, with 962 drivers and riders having registered to participate in the pilot.



Adoption in Phase I

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Approval Process

In addition to the pre-existing safety features within the Avego RTR system, the State required that all pilot project participants be pre-screened to meet additional approval criteria and requirements before being permitted to partake in the pilot proper. This included:

- Submit to a background check (submit SSN to Avego)
- Specific levels of auto liability insurance coverage
- DOL abstracts showing min. thresholds of accident and moving violations
- Copies of driver license records

The majority of participants were either unable or unwilling to comply with the State's screening requirements which resulted in significant user attrition. Despite more than 960 people registering, less than one third were prepared to provide their SSN and only 8 completed the process. It was equally clear that these screening requirements could not be sustained (economically or otherwise) if RTR were to scale beyond these participation levels.

Tolling

One of the initial aims of the Avego go520 Pilot was to measure interest in RTR before and after tolling was introduced across the SR-520 bridge. When the initial tolling start date in Spring was

reached and passed, the previous urgency commuters felt to find and experiment with other modes of transit waned. Some commuters slotted back into their previous commute methods once the tolling date became indefinite and others found different commute options while they were waiting on the go520 approval process.



Time-lag

PHASE II: JUNE – SEPTEMBER 2011

Phase II of the Avego go520 Pilot marked the beginning of the Avego-funded pilot, the removal of the approval process and the official launch of the WindowsPhone7 (WP7) version of the Avego Driver application. Relationships fostered during Phase I proved instrumental in this new phase, most notably the close ties with the TDM

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community, in particular Microsoft and the City of Redmond, as well as local employers who provided continued support in the form of commitments for assistance in direct employer email outreach.

Route

A route was chosen between Capitol Hill and Overlake, Redmond as the focal route in Phase II. The reasons for this route choice included the following:



Firstly, at the outset of Phase II, approximately 1,000 people had registered their interest in the project, over 300 of whom lived in Seattle and commuted to the Microsoft campus in Overlake, Redmond making this an obvious route choice. Stops providing safe, convenient pick-up/drop-off locations for both riders and drivers were also available along this route.

Secondly, as public and employer-provided transit options were available, but not optimal on this route (involving transfers or long distances on foot), there was an alternative to RTR for commuters to fall back on when numbers were

still low, but the more direct RTR option was preferable in some cases. Thirdly, HOV lanes, in particular HOV 3+ lanes on the outbound commute, made RTR appealing to drivers.

Finally, the transit center at Microsoft Overlake provided a hub through which RTR trips could be funneled. This familiar, safe, easily accessed public location offers parking and public transit options which suit the needs of both drivers and riders.

Technology

Many technological advances were made in Phase II, most notably the launch of the WP7 app, the introduction of SMS bookings, support for walk-up ridership, the introduction of the “Ride Board”, along with the continuous improvement of the iPhone application.



The WP7 application was developed in direct response to the high number of Windows Phone devices in the target area, and a close relationship with Microsoft.

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SMS bookings provided the ability to book a ride on the go without a smartphone. The Ride Board added an extra layer to RTR matching capabilities by allowing riders to view upcoming rides scheduled in their area, and to book this ride in advance, or in real-time. The Walk-Up PIN permits matching without a booking and creates more flexibility within Avego RTR, extending its reach to slugging or casual carpooling scenarios.

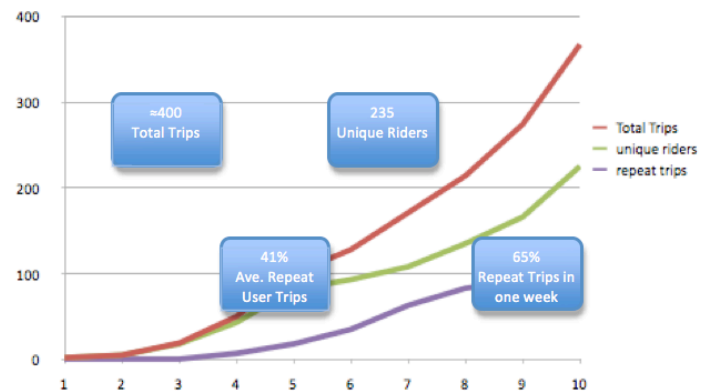
Incentives

As with marketing options, a number of incentives were tried and tested throughout the pilot. Gift cards of ranging value from a variety of stores, gas cards, larger prizes for drawings as well as free Avego credits and free rides were used at different times with varying success.



The most effective of these were Amazon Gift Cards, which led to the highest weekly repeat user rate (65%). The Guaranteed Ride Home (GRH), a free shared van service offered over 10 weeks, provided riders with security that if they booked a ride to work with Avego they could get a ride home with Avego during peak commute hours.

Adoption in Phase II



Beginning with 1 or 2 riders in a week, trips grew rapidly and over 400 trips were logged from 235 unique riders. This totaled to an approximate total of 4,750 passenger miles during Phase II with a peak repeat user rate of 65%.

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Learnings

Based on Avego's previous experience, a corridor strategy is the most effective way of growing the critical mass of riders and drivers. This strategy was also employed in Phase II of the go520 pilot and saw active ridership grow from 0 to 400 over a 10-week period.

This strategy allows for extremely targeted marketing, outreach and the most effective use of resources on the ground.

to commuters. However, for some riders the benefits of a more direct, flexible, comfortable and faster option outweighed the small RTR charge.

The abundance of free commute options available to Microsoft staff along this route posed a potential hurdle to the introduction of a paid RTR system. The perceived benefit to riders needed to be greater in this scenario than it would have to be on a route where no free options were available

For commuters who were entirely unfamiliar with carpooling a staggered introduction to the service proved effective in building their trust. First they availed of the GRH service, then booked a ride with an Avego employee and subsequently booked a ride with a normal go520 driver. It should be noted that only a small number of riders have this high a threshold to adoption and this is unlikely in an area where casual carpooling/slugging is already prevalent.



The screenshot displays the Avego mobile application interface. At the top, the Avego logo is visible. Below it, a search bar is set to "Search for a Ride along the SR 520 in Washington". The search parameters are "From: Microsoft Campus" and "To: Seattle Downtown". A map shows a route along the SR 520 corridor with a "See how it works" button. To the right, there is a "Join the Pilot?" section with a "Sign in" link and an "I'm interested" button. Below the map, there is a "go520: A smarter commute" section with a video player showing a smartphone displaying the app. To the left, there is a "Pilot News" section with a Twitter feed. At the bottom, there is a "Top Drivers and Riders this Week" section and a "Get Avego Driver" section with an "iPhone" download button.