

Western States Rural Transportation Consortium

Incubator Project Request Form

C. PROPOSAL REVIEW

March 15, 2016
Notes and Discussion

Title:

Winter Travel Times from Mexico to Canada and Wendover to the Sea

This proposal was presented by Ian Turnbull at the Steering Committee meeting held on March 15, 2016, in Corvallis, Oregon. Relative notes and discussion are included below.

- Ian explained the problem, background, and objective of the proposed project.
 - Providing accurate travel times during bad weather in areas where it is difficult to predict. Rural segments. Mexico to Canada, Utah border to San Francisco.
 - Potential to tie into a larger system, assist in verifying accuracy.
 - Enable travelers to look at conditions a couple hundred miles ahead.
 - First try to do through a major potential bottleneck, e.g., Fawndale, Donner Pass. Fawndale can back up 10 or 15 miles – it would be valuable to know how long it will take to get through.
 - Unsure if this can be done reliably. There is a need to define what is accurate and reliable and at what point does the information lose value – at what point is the information perceived reliable so that people change their driving behavior.
- Ron Vessey asked about avalanche control data. Ian responded that potential data sources include chain conditions, California Highway Patrol, TMCAL data, etc.
- It was noted that policies do not encourage people to use mobile devices while driving to access traveler information.
- Ron asked about the use of Waze and Galen McGill mentioned INRIX relative to this project. Public record data was discussed as was inherent inaccuracy. Ian commented that a system like what is proposed would necessarily use multiple sources of data. However, Ian hasn't seen interest beyond urban and congested areas – the private sector could do this if they chose to, but don't appear to be interested in anything without traffic density.
- Ron asked if the WSRTC would be interested in contacting some of these companies. The group generally responded yes, adding that technologies are changing dramatically. Ron added that Waze has been more aggressive in building partnerships. WSDOT is partnering with INRIX for data over Snoqualmie Pass. Galen added that he thought the interest from the private sector would be there.
- Ian commented that no one has really defined or nailed down what is accurate enough for traveler information data. E.g., anecdotally, percent up time, when it is around 96 or 97 percent, people start questioning the information. If a target is not defined, then it is not really useful. Right now, it is what it is; be the best it can be. Ian would like to see more defined metrics.
- Ron asked Galen whether ODOT has a non-sales contact? ODOT has contracts/agreements with HERE and WAZE. ODOT is interested in working with a private company on winter road conditions.
- Ian commented that the proposed project could be done by a private party, but was unsure about the level of interest. It is hard to develop an economical model that works without the urban/volume component. Galen indicated he thought that private companies would be interested.
- Ian mentioned the status of the connected vehicle movement, for example, related to cellular coverage. Galen commented that in Oregon, little budget is going towards expanding coverage, instead there is more

of a focus on network upgrades. The connected vehicle initiative and the Internet of Things may or may not influence that focus.

- Galen suggested adding private sector investigation to the project's scope to determine where private industry is at and where they are going. Rod would be interested in gauging their interest in travel time provision. Looking at an area where they are claiming to do this such as Snoqualmie Pass would be valuable.
- Travel times can be very different, e.g., passenger cars versus trucks crossing mountain passes.
- Ian said he would like to see development of an algorithm that can deal with the delta period. He added that the philosophy developed for the project could likely be applied to many places, but the algorithm will likely be specific to a certain segment.
 - Potential road segments to investigate: Snoqualmie Pass (Washington), I-5 around Fawndale (California), I-80 around Donner Summit (California), Siskiyou Pass and/or near Ashland exit, Highway 2 (variable speed limits) in three locations (Oregon), etc.
- A question was posed asking how good travel times have to be before they are made available. Rod said that in Nevada travel times are not posted unless they are deemed reliable based on their own detection, not historical data. He added that the goal is 90 percent reliability. Galen said that for Oregon, in the urban areas, there is a 10-15 percent error in travel times which is viewed as acceptable. However, that is often hard to achieve in changing conditions.
- For the next Steering Committee meeting at the Western States Forum in June, each state will do some investigation and discovery in regard to the best test segments for the travel time project. This includes identifying field elements in the segment of interest, the potential for data feeds and interoperability, and the willingness of locals to participate in such a project. Ian Turnbull and Jeremiah Pearce will flesh out the proposal, including expectations, steps, vision versus reality, potential questions to field personnel (to be further refined by the researchers), etc.

June 21, 2016 Notes and Discussion

Title:

Winter Travel Times from Mexico to Canada and Wendover to the Sea

At the annual WSRTC meeting on June 21, 2016, in Yreka, California, Ian Turnbull presented a revised proposal based on the original discussion above. Relative notes and discussion are included below.

Ian Turnbull reviewed the revised proposal and the group confirmed the desire to move forward with this incubator project. The project would be a task order for WTI or another university. As desired, each state will visit with universities that might be interested in the project to determine capabilities and capacity to do the work. The group will report back on a teleconference in a couple months. Some points of discussion at this meeting included:

- Researchers will determine the length of segments for testing.
- Availability of truck parking may be a consideration for the research.
- Along Interstate 5 during winter conditions, travel decisions are being made a significant distance from road closure points.
- Caltrans District 3 determined travel times between Sacramento and Lake Tahoe using Bluetooth. How would this work in the winter time?
- Tony Leingang asked whether there was a concept of what a maximum segment length might be beyond which it was too far to predict travel times. Ian's initial thought is to develop algorithms that work for individual segments and then string the segments together. Rod Schilling thought a segment may need to be long enough to include an alternate route. The researchers will answer these questions.