North/West Passage Operations and Travel Information Integration Sharing (OTIIS) Project

Launch, Progress, Usage and Lessons Learned

National Rural ITS Conference
October 3, 2016
Overview

• Background
• Launch & Progress
• Usage
• Lessons Learned
The North/West Passage

Transportation Pooled Fund

I-90 & I-94
8 states (now 7)
~3200 miles of interstate

Major east-west corridor for commercial and recreational travel
8 different systems
Project Goals

Research, develop, and operationally test a technology solution:

- Traveler Information → decision making → safer and more efficient;
- Agency Coordination → response to weather events, serious incidents;
- Influence Positive Driver Behavior Changes → safety, efficiency;
- API Opportunities → Connect Vehicle, sustainable business model;
- Increase Awareness → public education and marketing

Corridor-wide Traveler Info Website
Mobile App with push notifications
API for expansion, integration
From the Literature

• Corridor-wide traveler information that extends beyond an individual state is desired
• Personalized information preferred
• Push type notifications gaining in popularity
• Mobile devices favored
• Social media tools are increasingly used for information dissemination
• Tourism Destination Anchors are important marketing focal points
Mockups, ConOps, Prototypes

Used to gather feedback from:

• Steering Committee and other DOT Stakeholders,
• ATA and State Trucking Associations,
• Usability Testing Participants
  – NWP corridor *truck drivers*
  – NWP corridor *general travelers*
Mockups, ConOps, Prototypes
Select Usability Results

All users quickly understood how to use the interface.

- “I love this website, I would definitely use it”
- “Finally the DOT cares about providing for truck drivers. I mean to help them plan their trip.”
- “It will be very useful to have a mobile application”
- 100% of participants said they would use the website if it was in place
Phases, Timeline, and Products

Phase I:
- Research & Development
- Operational Test Website
- Public Website

Phase II:
- API
- Experimental App
- Beta Test
- Evaluation
- Evaluation Report

Timeline:
- Feb '13
- Oct '14
- Apr '15
- Jul '15
- Apr '16
- Oct '16
- Apr '17
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Launch Process

• Soft Launch
  – Allow each state to market as they see fit
  – No coordinated announcements or press
  – Optional links from States’ primary travel info websites
Press & Milestones

Public soft-launch

Idaho Transportation Department News Release
  * Highbeam.com reprint

NWP.info travel info website redirect

Montana State University Press Release
  * Travelagents.com reprint
  * Belgrade (Montana) News reprint
  * Thinkhighways.com reprint
  * ITS Rocky Mountain reprint

Podcast on Transportation Radio (B. Wagenblast)
  * TrafficTechnologyToday.com link
  * ITS Smartbrief newsletter link

July 1, 2015
August 13, 2015
August 13, 2015
September 1, 2015
October 6, 2015
October 7, 2015
October 9, 2015
November 10, 2015
November 30, 2015
December 10, 2015
December 11, 2015
Progress

• O&M + Improvements Model

• Operations & Maintenance
  – Minimal O&M aside from data feed changes and injector maintenance

• + Improvements
  – Make camera images larger, add timestamps
  – Make route options different colors
  – Integrate with rural MN cameras not on MN511
  – Implemented user feedback mechanism from Helprace
  – Make seasonal default events display for all of I90&94 upon loading without need to enter trip start and end
  – Dozens more…
Mobile App

- MSU Computer Science Development Team
  - Dr. Mike Wittie and Students
- Concept Mockups to Beta Test App
Mobile App Beta

Interstates 90 and 94 between Wisconsin and Washington function as major corridors for commercial and recreational travel. Extreme winter weather conditions, prevalent in the northern...
Mobile App Beta

www.roadstosafediscovery.com/mobile/
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User Location

Monthly Average Trips Planned per User IP Location (12-15 to 3-16)

- WA
- ID
- MT
- WY
- ND
- SD
- MN
- WI
- Non-NWP States
- Non-US
- Unknown

Trips Planned
Website Traffic by Source

Monthly Average OTIIS Traffic by Source (5/16 to 9/16)

*direct roadstosafediscovery.com traffic ~310 visits
Google Search Terms Leading to Website Visits

• 94 to 90 scenic travel
• construction on 90/94
• i90 travel forecast
• i94 route to washington state
• road construction in wisconsin i 90 or i 94
• 90 or 94?
• i90 or i94 nicer views or wisconsin
• traffic condition 90 94
• weather from wisconsin to montana
• traveling through minnesota and i94 and accommodations
• traveling trip west from il to mt on i90
• driving to washington state in october from minnesota
• interstate 90 94 construction
• road construction i94 minnesota to montana
• truck driving route wisconsin to montana
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Monthly Users and Press

- **July 1**: Soft Launch
- **Aug. 13**: ITD News
- **Sep. 1**: NWP Redirect
- **Oct. 6**: MSU News
- **Dec. 10**: B.W. Interview
- **Late March**: Autoload Seattle to Milwaukee
- **Mid April**: Search Eng. Optimization

Unique Users per Month
User Survey
User Survey

• Administered thanks to Athey Creek Consultants
• Few Responses (15 total through 1/16)
• Overall Mixed Reviews
• Led to Few Tweaks to Make things Easier
  – Landing page instruction overlay
  – Auto-load Seattle to Milwaukee
Final Evaluation Report

• Evaluation ongoing
• Final report in coming months
  – Detailed usage trends
  – weather event impacts if possible
  – Additional feedback gathered (website and app)