Proposed division of research for Southern Minnesota MaaS project

Grey= Included in IE scope

Blue= Included in UMN scope

Orange= Not mentioned in IE scope. Who should take on them?

**University of Minnesota**

* Modeling of traveler behavior based on new travel option information and booking options, perceived time benefits, and different pricing models
* Baseline survey, pre-technology deployment
  + Documenting current travel patterns and desires
  + Documenting current perceived travel time assumptions by travel mode
  + Document net promoter score for public transit and shared mobility services and rider satisfaction for public transit and shared mobility users
  + Present MaaS technology idea to gauge impact on assumptions and likelihood to change travel behaviors
  + Present different pricing models for multimodal subscriptions to gauge attractiveness and willingness to change travel behaviors
  + Where possible, document subset information for equity focus demographics
* Model potential benefit of MaaS to travelers through increased options and reduced travel cost and time and to society through reduced SOV trips and great access to mobility.
* Analysis of travel data during MaaS deployment to determine travel time and cost with MaaS versus without
* If subscriptions are available, analysis of different bundled pricing models on public transit and shared mobility use through the MaaS app
* MaaS platform user survey during pilot
  + Document changes in travel choices with MaaS app, including change in SOV use
  + Document changes in travel cost and perceived travel time with MaaS app
  + Document changes in net promoter scores/rider satisfaction among MaaS app users for modes they use
  + Present any new multimodal subscription models developed after pre-launch survey and not yet tested
  + Where possible, document subset information for equity focus demographics
* Summary report on field research findings, differences between pre-launch modeling and real world data, and impacts of MaaS technology and pricing models on travel behavior

**Independent Evaluator**

* Focus group interviews with MaaS users and public transit agency staff
* [REMOVE] Analysis of impact of MaaS platform to reduce single-occupancy vehicle (SOV) travel
* Analysis of how the MaaS platform facilitates connections between both public transportation agencies and private mobility service providers, improving user travel times. Where possible, document subset information for equity focus demographics
* Analysis of the MaaS platform ability to increase use and sustained utility across the diverse urban to rural environments in the service area over the project period of performance. The platform increases users’ transit use compared to before with analysis of rider data from other Mn systems without MaaS as a control. Estimated number of new trips generated by MaaS platform systems versus control group to gauge progress towards MnDOT’s 2025 transit needs met goal
* Determine if the incorporation of new Demand Response Transactional Data Spec increases the utility of the MaaS platform. Where possible, document subset information for equity focus demographics
* Determine if the MaaS platform reduces user time spent planning, booking, and paying for trips/services through consolidation of said services in a single application. Where possible, document subset information for equity focus demographics
* Analysis of any combined increase in public transit ridership or decrease in operational costs as it relates to the cost of introducing the MaaS technology (ROI)

**MnDOT/MNIT/Technology vendor**

* Customer cycle information over time and cohorts (Awareness, Acquisition, Activation, Retention, Revenue, Referral)
* Development and testing of new bundled pricing

**Potential areas of collaborative research between U of Mn and IE**

* Survey development
* MaaS platform trip analysis
* Comparison of NTD trip data, fare collection, and operational cost between project public transit agencies and control