How ITS could help multimodal trip planning

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In our daily life, we travel
In our daily life, we travel with various purposes. If too many people go to the same place at the same time? = congestion

- Work
- Shopping
- Social
- Personal
One way to reduce traffic congestion: people travel less or travel smart

- Work
- Shopping
- Social
- Personal
Clearly, traveler information is a key component of most of these choices, such as periodic updates of available services, coordination between employers and employees who wish to use some of the options, providing real-time information about travel conditions, or providing custom information to specific employees in response to individual travel needs. Information dissemination can be as simple as newsletters and bulletin boards to advanced technology such as broadband wireless communications that deliver images as well as audio and text information to vehicles.”
Our “travel choices”

- **Trip reduction**
- **Mode**
- **Departure time**
- **Route**
- **Destination**
What we can do with the choices

**Mode**
- Carpool
- Park-and-Ride
- Taxi
- Public transport
- Active mobility

**Departure time**
- Flexible work time

**Route**
- Fastest route
- Incident avoidance

**Destination**
- Residential
- Workplace
- Shopping

**Trip reduction**
- Compressed workday
- Telework
- Online shopping
Multimodal trip planning
= provide best information of choices

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<th>Trip reduction</th>
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<th>Departure time</th>
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<tbody>
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<td>Compressed workday</td>
<td>Carpool</td>
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<tr>
<td>Telework</td>
<td>Park-and-Ride</td>
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Multimodal trip planning
So nice if we could have this kind of suggestion...

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- Fastest route

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- Residential
- Workplace
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Peter, Store A does not have stuff you want. Do not go there
Peter, your boss allows you to work at home today
Peter, we switch to teleconference, you don’t need to come to office

Peter, the stuff you need is available at Store B
Peter, we show you locations of temples that you can go
Here is all information you need when you want to buy a house or office
Multimodal trip planning
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Trip planner

Mode

By public transport + walk

By car

By walk

Reduce travel time and cost

Suggest multimodal transport

Multi-Mode (P&R)

Time = z min

Route (real-time)

Departure time

By car

Time = y min

Fare = $
LinkFlow

Link your flow with smart choice
Multi-Mode (P&R)
Multi-Mode (P&R)

Route (real-time)

Departure time

Travel and cost &
Time comparison
Future improvement (concept)
Multi-Mode (P&R)
Route (real-time)
Departure time
Arrive office at 8:00am
Travel time from home = 64 min

Arrive office at 8:30am
Travel time from home = 75 min
Assist company flex-time decision

Collection of travel data

- Route (real-time)
- Multi-Mode (P&R)
- Departure time
- They can estimate travel duration and time

Special Application
Assist company flex-time decision

Special Application

Company travel program

Departure time

Route (real-time)

Multi-Mode (P&R)
Assist company flex-time decision

Special Application

Company summary report

- Multi-Mode (P&R)
- Route (real-time)
- Departure time

They can estimate travel duration and time

- Home to Office
- Office to Home
Assist company flex-time decision

Special Application

Company summary report

They can estimate travel duration and time

Departure time

Route (real-time)

Multi-Mode (P&R)
Assist company flex-time decision

Special Application

Company summary report

Departure time

Route (real-time)

Multi-Mode (P&R)
• **Multimodal trip planning**: Provide information of choices
  - Compare multi-mode of travel
  - Route (via real-time information)
  - Departure time

*ITS* is the engine of data, processing, making timely and accurate information

*Link Flow* as example:
Built for wider applications
  - Individual travel data collection
  - Company employee travel program
  - Business opportunities
Thank you very much

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