Opinions Concerning Connected Vehicles

We are conducting a survey of opinions about connected vehicles.

An explanation of what is meant by connected vehicles will be shown on the next page. Please take a moment to read that description of connected-vehicle technology carefully before continuing with the survey.

Connected-vehicle technologies are envisioned to ultimately encompass safety, mobility, and environmental applications.

Connected-vehicle safety applications would enable vehicles to have 360-degree awareness to inform a vehicle operator of hazards and situations they cannot see. These safety applications have the potential to reduce crashes through advisories and warnings. For instance, vehicle operators may be advised of a school zone, sharp curve, or slippery patch of roadway ahead, and may be warned in more imminent crash situations, such as during merging operations or if the vehicle ahead stops suddenly. Vehicles can also be warned of bicycles and pedestrians through connected-vehicle technology, enhancing the safety of these travel modes.

Connected-vehicle mobility applications are intended to provide a connected, data-rich travel environment based on information transmitted anonymously from thousands of vehicles that are using the transportation system at a particular time. This information could help transportation managers monitor and manage transportation system performance by adjusting traffic signals, transit operations, or dispatching maintenance crews or emergency services, for example.

Providing travelers with real-time information about traffic congestion and other travel conditions is expected to help them make more informed decisions that can reduce the environmental impact of their trip. Informed travelers may decide to avoid congestion by taking alternate routes or public transit, or by rescheduling their trip, all of which can make their trip more fuel-efficient and ecofriendly. The ability for vehicles to “talk to” the infrastructure could provide information to the vehicle operator so that he/she can drive through a traffic signal network at optimum speeds to reduce stopping.

1) Had you ever heard of connected vehicles before participating in this survey?
   Yes
   No
2) What is your general opinion regarding connected vehicles?

*Even if you had never heard of connected vehicles before participating in this survey, please give us your opinion based on the description you just read.*

- Very positive
- Somewhat positive
- Neutral
- Somewhat negative
- Very negative

3) How likely do you think it is that the following benefits will occur when using connected vehicles?

*Please select one response per row.*

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Very likely</th>
<th>Somewhat likely</th>
<th>Somewhat unlikely</th>
<th>Very unlikely</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Fewer crashes</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Reduced severity of crashes</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. Improved emergency response to crashes</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. Less traffic congestion</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e. Shorter travel time</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f. Lower vehicle emissions</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g. Better fuel economy</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>h. Lower insurance rates</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>i. Fewer distractions for drivers</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

4) How concerned are you about the following issues related to connected vehicles?

*Please select one response per row.*

<table>
<thead>
<tr>
<th>Issue</th>
<th>Very concerned</th>
<th>Moderately concerned</th>
<th>Slightly concerned</th>
<th>Not at all concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Safety consequences of equipment failure or system failure</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Legal liability for drivers/owners</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. System security (from hackers)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. Vehicle security (from hackers)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e. Data privacy (location and speed tracking)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f. Interacting with non-connected vehicles</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g. Interacting with pedestrians and bicyclists</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>h. Learning to use connected vehicles</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>i. Increased distractions for drivers</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>j. System performance in poor weather</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>k. Drivers will rely too much on the technology</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
5) Of the three main areas that connected vehicles are expected to encompass—safety, mobility and the environment—which is most important to you?
   Safety
   Mobility
   Environment

6) How interested would you be in having this technology on a vehicle you drive?
   Very interested
   Moderately interested
   Slightly interested
   Not at all interested

7) How much extra would you be willing to pay to have this technology on a vehicle you drive? *(Please enter 0 if you would not be willing to pay extra for this technology.)*
   [Respondents were asked to input an amount in their local currency; these amounts were recalculated to US$ using current currency conversion rates.]

8) How important is it to you that connected-vehicle technologies are able to integrate with your personal communication device(s)?
   Very important
   Moderately important
   Slightly important
   Not at all important

9) How important is it to you that connected-vehicle technologies include Internet connectivity?
   Very important
   Moderately important
   Slightly important
   Not at all important

10) Now we would like to know some basic background information about you.
    What is your gender?
    Female
    Male
11) What is your age?
   18 to 24
   25 to 29
   30 to 34
   35 to 39
   40 to 44
   45 to 49
   50 to 54
   55 to 59
   60 to 64
   65 to 69
   70 or older

12) What is the highest level of education you have completed?
   Less than bachelor degree
   Bachelor degree
   Graduate degree

13) What is your current level of employment?
   Please select only ONE option that best describes you.
   Employed full-time
   Employed part-time
   Not currently employed
   Retired
   Full-time student
   Part-time student

14) Do you currently have a valid driver’s license?
   [UK: “driving licence”; Australia: “driver’s licence”]
   Yes (including a suspended license) [UK/Australia: “licence”]
   No

15) What kind of vehicle do you drive most often?
   Passenger car (any type or size)
   Minivan / van / MPV (multipurpose vehicle)
   Pickup truck
   SUV (sport utility vehicle)
   Motorcycle / scooter
   Bicycle
   Do not drive