Data Takes a Front Seat as Connected Cars Merge into the Internet of Things

Number of connected cars globally predicted to reach 152 million by 2020

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Connected Cars</th>
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<tbody>
<tr>
<td>2018</td>
<td>68 million</td>
</tr>
<tr>
<td>2020</td>
<td>152 million</td>
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Connected cars will generate massive amounts of data and associated revenue

- 11.1 million gigabytes of data worldwide
- $14.5 billion dollars of revenue post vehicle sale

Collecting and analyzing data will have a huge impact on transportation models and business value creation:

- Driver Interaction with Vehicle
- Vehicle Operation and Function
- Road and City Infrastructure
- Data Monetization

Historically, the majority of connected car data collected has revolved around vehicle status:

- Location
- Speed
- Braking
- Diagnostics
With increasing access to vehicle systems, sub-systems, and the cloud, additional data and insights can be extracted:

- **Driver Interaction with Vehicle**
  - Road Condition Warnings are proactive alerts about situations like flooded streets or patches of ice to prevent accidents and improve navigation.
  - Multi-App Synchronization and Updates are used to integrate calendars, alarms, parking, navigation, and other apps with on-board data. Analytics then compare use, direction, and location patterns with real-time data to proactively provide suggestions and adjustments.

- **Vehicle Operation and Function**
  - Safety and Cybersecurity enhancements are crucial for the safe and secure operation of connected cars. Car data enables real-time security monitoring and intrusion detection to protect against cybersecurity threats and attacks.
  - Maintenance Analytics and Alerts flag issues about car systems in order to take preventative measures as well as allowing automakers deep insights into vehicle diagnostic patterns.

- **Road and City Infrastructure**
  - V2V and V2I Communications are interactions with other vehicles and city infrastructure that are expected to reduce crashes up to 80% by exchanging information and taking proactive measures as well as improving traffic by contributing to smart traffic management.
  - Smart Traffic Management is a congestion system where traffic signals and sensors respond to real-time demands using V2V and V2I communications. This mitigates wait and travel times by reducing rubber banding and providing alternative routes.

- **Data Monetization**
  - Post-Purchase Enhancements enable consumers to remotely purchase new and improved features after the vehicle has left the dealership. This provides automakers with additional revenue opportunities and increased customer satisfaction.
  - Location-Relevant Promotions and Proactive Suggestions leverage personal data, preferences, and historical use patterns to make suggestions and tips that enhance consumers’ driving experience and daily journey.