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W3C WEB AND AUTOMOTIVE WORKSHOP POSITION PAPER

We are very excited with the possibilities opened up by the fusion of Web and Automobiles, and we believe cars will evolve to a whole new level by being connected to the World Wide Web. Recently with the evolution of mobile devices and wireless networks, people are becoming more and more acquainted with having a wide variety of web based services at their fingertips, and the demand is ever growing for in-vehicle use of such services.

Today, car manufacturers provide a wide variety of connected services to provide safety, security and convenience leveraging both standard and proprietary platform technologies. At Honda, we have provided "Internavi [1]," a connected service since 1998 in Japan. The service has evolved over time to provide service info, floating car data real-time traffic, weather, POI search powered by Yahoo!® Japan and more. For the North American market we provide "AcuraLink® [2]," a satellite delivered service (i.e. traffic, weather) and cellular data communication assisted services like Automated Appointments™ since 2004, as well as the new "HondaLink™ [3]," Cloud based smartphone powered services (providing EV remote battery monitoring, Aha™ Internet Radio by HARMAN, Pandora®, SMS and more), starting with Fit EV and 2013 Accord. By utilizing a more Open, Web standards as the service platform, we hope to accelerate innovation in the industry through active collaboration.

However, compared to consumer devices, the car is obliged to provide high safety and reliability. We believe that creating standard methodology capable of meeting such high safety and reliability expectations is the key to the success of Web and Automotive.

For the automotive industry, preventing car accidents is amongst the top priorities, and thus, HMI driver distraction is a very important topic. Currently there are different driver distraction guidelines for different markets and require slightly different implementations for each market. There are existing guidelines such as AAM guidelines [4] for US market, EU Commission Recommendation [5] for EU countries, and JAMA guidelines [6] for Japan, as well as ongoing efforts such as NHTSA guidelines [7] and various laws and regulations of different countries.

Also, for different market demands and differentiation, automotive makers design and utilize a variety of HMI devices such as touch-panel displays, haptic devices, steering remotes and voice commands. It will also be a challenge to create an effective and efficient methodology and supporting standards for the design of Web Applications conforming to various HMI.

Finally, Web Applications designed for the different driver distraction requirements and HMI variations needs to be provided / distributed in a reliable, secure and trusted manner. Such reliable, secure and trusted distribution is also key to protect the car from external attacks that may tamper the safe operation of the vehicle, and to protect the users from personal information theft. This will require mechanisms such as application authentication and security / privacy policy control (i.e. API access control).

Through the activities of W3C Web and Automotive Workshop, we would like to see many players join the effort in an innovative collaboration within Web and Automotive market.

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