

# Chrysler Portal Concept USER EXPERIENCE

# **Chrysler Portal Concept Connects with Occupants and Their World**

- Chrysler Portal concept carries more than 20 technologies to engage, inform and connect users
- User experience designed with bring your own device (BYOD) in mind, seamlessly connecting with mobile phones, cameras, tablets, laptops
- Facial recognition automatically tailors displays, options for each occupant
- App enables users to customize and activate features of Chrysler Portal from remote locations
- High-mount display with high-resolution 3-D graphics and personal-zone audio to keep driver informed and alerted to traffic situations
- In-vehicle network designed for flexibility and easy upgrades

The Chrysler Portal concept is designed to keep the driver and passengers connected – to each other, to the vehicle and to the surrounding world.

Starting with today's widespread use of the Internet and social media for communication and information, the FCA User Experience (UX) team, and an internal UX Tiger team from the Panasonic Automotive Advanced Engineering function, jointly picked a blend of emerging and future technologies to engage the next generation of vehicle users.

"When our teams began imagining the user experiences inside the Chrysler Portal, we set out to identify a long-time supplier partner who could help push the limits of customization and personalization," said Scott Thiele, Chief Purchasing Officer for FCA NV and Head of Purchasing and Supplier Quality for FCA – North America. "Working with Panasonic Automotive on this concept vehicle is just one example of how FCA is engaging strategic suppliers early in the development phase to bring to life innovations that can become industry benchmarks."

# PORT

Tapping the Panasonic Cognitive Infotainment (PCI) platform as the foundation of the UX feature set, the Chrysler User Experience team matched future consumer needs (life, finances and new technology) to those new technology solutions now exhibited in the Portal concept.

"Working together, FCA and Panasonic Automotive are showing a more cognitively enhanced set of technologies that can give drivers and passengers a superior, more accurate, just-in-time in-vehicle experience," said Tom Gebhardt, President, Panasonic Automotive Systems Company of America. "In fact, we are so delighted by the partnership, Panasonic has created a complimentary technology exhibition to further showcase our joint interests in UX, software, hardware, and cloud services specifically featuring a unique e-commerce retail use case."

The battery-powered Chrysler Portal concept electric vehicle was unveiled today at CES 2017 in Las Vegas.

Facial recognition, voice biometrics provide a seamless, personalized experience For members of the millennial generation, the target audience for the Chrysler Portal concept, technology is more than a tool – it's an integral part of their lives.

The hub of this technology is the mobile phone. The Chrysler Portal concept is engineered to seamlessly detect and connect with passengers' mobile devices, expanding the social canvas.

Recognition and user authentication is the next level of personalization and a primary driving factor for the user experience. Facial recognition and voice biometric technologies work together to provide a seamless personalization experience. As a result, all passengers can set up individual and group settings for an enjoyable, customized experience. For example, facial recognition tells the Chrysler Portal who is in the vehicle and how to automatically configure preferred settings, such as music. lighting, vehicle temperature, heated or cooled seats, etc. Internet cloud-based technologies, combined with facial and voice recognition, keep those preferred settings in sync should a passenger move to another seat.

Accessing technology inside the vehicle is naturally intuitive using a blend of voice controls with familiar touch controls. With an array of microphones inside the Portal concept, voice control is available to all occupants. Advanced speech software can identify who is speaking to accurately determine an action, such as which display screen to access. Embedded interior and connected portable device cameras also facilitate conversations and interactions.

Want to play music tailored for an individual, such as a child? Simply say, "Play Johnny's 'Naptime Favorites' playlist." Personalized audio zones enable each passenger to listen to their own content isolated to their seat without the need for headphones.

# POTTA

Facial recognition enables the Chrysler Portal concept to track the driver's directional gaze, as a result, the intensity of the high-mount display screen can automatically dim or increase to help reduce eye strain. If the driver is looking at a specific location on the display and a critical notification occurs, such as an oncoming emergency vehicle, a message pop-up in the area where the driver is looking helps reduce reaction time.

#### Turn road trips into social memories

Social media plays a large role in the lives of many Millennials. In the Chrysler Portal concept, sharing content between passengers is as easy as a swipe to the right. A personal tablet or mobile device becomes a community display screen via a docking station in the Chrysler Portal's headliner, making it easily viewable by second- and third-row passengers. Media such as music, images and videos from personal devices can be shared with a simple upward swipe to the display screen. The community display is ideal for road trips with family and friends. At a glance, infographics show the progress of the vehicle to the trip destination.

The Chrysler Portal concept also takes into consideration each passenger's media preferences and enables them to contribute to the road trip experience. Using predictive intelligence, passenger preferences can be merged to create an overall community setting that can help the group find destinations and plan the best route, select a restaurant, and play music and videos everyone can enjoy.

Once a route is set, it can be added to the community display so all passengers can monitor the trip's progress. At the lunch break, passengers can use the technology in the Chrysler Portal concept to order from a quick service restaurant via voice or touchscreen without rolling down the window or leaving the vehicle, a real convenience in inclement weather. If someone is not sure what to order, the system's intelligence can offer suggestions based on the passenger's personal settings. With ecommerce, there is no need for cash or a credit card as the payment can be securely transacted from the vehicle while in transit.

Once at the destination, interior and exterior cameras can capture the moment with a selfie, which is then automatically downloaded to everyone's personal device and can be shared via social media.

### Affordable, upgradeable technology designed to be added as needed

Keeping the user experience affordable, the Chrysler Portal concept's in-vehicle technology is designed to be adaptable and upgradeable. Cost-conscious consumers are able to decide what technology they want to add and when they want to integrate it into their vehicle, such as adding technologies to meet the ongoing needs of a new family. For example, the vehicle's short-range wireless network enables parents to connect a baby monitor camera to a seat, with the image appearing on the high-mount display.

Another way consumers could integrate their personal devices is by using the Chrysler Portal Concept Companion App. Once downloaded to a mobile device, the companion app has the ability to customize vehicle lighting, control vehicle and home settings, lock/unlock doors and operate other functions from any location.

#### Advanced driving assistance

A key element of the Chrysler Portal concept's user experience is the graphic-rich, high-quality information available to the driver.

The hub of this information is the high-mount display, located above where a traditional instrument panel would be placed. Active Matrix Organic Light Emitting Diode (AMOLED) technology in the display makes the screen brighter and sharper. The technology embedded in the Chrysler Portal collects a wide spectrum of visual, sensor-based and infrastructure data; organizes and configures the information for display; and tailors the presentation to keep the driver's attention on the highest priority functions.

The display, which spans nearly the entire length of the instrument panel, is positioned higher intentionally for greater visibility and to aid the driver keeping his/her eyes on the road. Maintaining visibility with the horizon helps reduce the possibility of motion sickness while interacting with the 3-D graphics, especially if Level 3 autonomous driving mode is engaged.

The length of the screen enables three zones of information. The first section of the screen, located in front of the driver, offers traditional vehicle information, such as speed. The middle section displays a 360-degree situational awareness view, such as surrounding vehicles, GPS information and points of interest, and can be viewed by other vehicle occupants. The third section can be used for media sharing, status updates of passengers, such as their seat temperature, music or videos being played and a view of them.

During Level 3 autonomous driving, the display communicates the status of the vehicle and the surrounding environment. Should the vehicle come to a stop or perform a quick maneuver, the viewable display makes it clear to all occupants the status of the vehicle.

The Chrysler Portal concept is constantly using Vehicle-to-X (V2X) communication that enables the vehicle to "talk" with the public infrastructure, Internet, and other vehicles via an array of sensors. For example, if an approaching ambulance is out of sight, V2X systems will notify the vehicle that the ambulance is approaching. Graphics on the high-mount display will communicate the oncoming ambulance by simulating its approach and direction, and the audio system will provide cues that the vehicle is approaching.



#### **About Panasonic Automotive Systems Company of America**

Panasonic Automotive Systems Company of America is a division company of Panasonic Corporation of North America and is the top supplier of automotive infotainment systems globally, according to IHS. Panasonic Automotive Systems Company of America acts as the North American operating company of Panasonic Corp.'s Automotive & Industrial Systems Company, which coordinates global automotive and industrial systems and components operations. Panasonic Automotive is headquartered in Peachtree City, Georgia, with sales, marketing and engineering operations in Farmington Hills, Michigan. For more information on Panasonic Automotive Systems Company of America, please visit: http://us.panasonic.com/automotive.

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