



Robert Guest journeys on the road to in-vehicle infotainment

The rise of connectivity is transforming the automotive industry. Today, manufacturers are looking at driverless vehicles, smart cities and ride-sharing as potential futures. As they prepare for this vision, a tangible, immediate revenue stream is still largely untapped: in-car infotainment.

By 2020, the global infotainment market will reach \$52bn, with personalised entertainment experiences playing a big part in its rise.

This growth is driven by better internet connectivity. Wifi in the car bridging consumer devices to 4G networks and the upcoming deployment of 5G are making it a lot easier to develop new connected infotainment services. This connectivity is enabling manufacturers to move beyond the traditional infotainment offering of broadcast audio and news. For the industry, the next frontier is personalised services that adjust to each passenger and journey.

The template for the industry is in part being set by expectations from the consumer entertainment industry. Today, consumers benefit from highly personalised media and gaming services, on almost any device and at any time. With the continued improvement in connectivity and bring your own device (BYOD) environments becoming more sophisticated, the time is ripe for

JOINING THE DOTS

the automotive industry finally to offer passengers the chance to turn cars into personalised entertainment hubs.

Personal

Each manufacturer will have different ideas about what constitutes an effective infotainment system. However, any system needs to provide access and play audio content, display maps, report traffic conditions and weather forecasts. Sophisticated systems are providing on-demand audio services and OEMs are looking to provide access to video content, typically via the rear-seat entertainment screen or a passenger's own tablet (BYOD). This is starting to change the consumer perception of the car itself: passengers are now expecting easy access to content in the car, initially driven by audio but quickly transitioning to

include video. For the content industry, this raises a new challenge: developing appropriate content formats that are conveniently consumed inside a moving vehicle.

Far from offering a unified, rigid experience to every single passenger, OEMs have the opportunity to provide infotainment that will adjust to each user's content and platform preferences, and to each journey. New opportunities within recommendations and advertising could provide exciting revenue streams. For example, parents picking up children from school in a spacious family-friendly car and driving for one hour can be offered short length family-friendly content such as cartoons or animation films rather than a two-hour blockbuster that cannot be fully watched.

This would be drastically different from a taxi picking up a

customer for a 20-minute ride inside the city, where the best options would be news updates, short-form comedic videos over YouTube, casual games or the latest weather forecast.

Entertainment hub

The design of the infotainment system will play a crucial part in the experience: to reach the widest audience, OEMs and content owners need to offer a fully integrated environment offering access to a wide range of audio and video media within a single interface. Navigating through different apps offering similar content will lead to consumer frustration and ultimately reduce take-up and revenue. Similarly, a reluctance to integrate with the consumer's devices within the car will also hinder update.

Combining both in-vehicle and brought-in devices can prove an engineering challenge that adds little value to the OEM brand. By using readily available products that cater to both types of platform, technical teams can save development and testing time and focus on customer value-added features.

This then results in faster time to market, a higher quality experience for the consumer and increased brand satisfaction.

Yet, manufacturers need to take a number of technical challenges into account beyond the look and feel of the service. The first one is the content offering: while providing consumers with a Netflix licence may sound like an easy option, it limits the relationship between the manufacturer and the user. Once the viewer starts the external



Smart media platform in a connected car



Media sharing in a car infotainment system

video service, it automatically redirects to Netflix itself, handing over all the passenger's preferences and habits over to the streaming service.

Instead, manufacturers should design a brand offering that is only available in their vehicles and both enhances and extends their relationship with their customers. However, this is not a simple undertaking. Building relationships with each individual broadcaster, content owner or studio and ensuring that content made available in the car is fully protected at all times is time complex and consuming.

Finally, manufacturers need to understand the EU content portability rules and their impact on the content catalogue they may want to offer to consumers travelling across Europe. Consumers can continue to watch content across borders, regardless of the number of countries they drive through, in a similar way to the simple network switches they

already witness on their smartphones.

Partnering with companies that understand the technology challenges and know the intricacies of the content industry as well as the automotive sector can help address these challenges. This will enable OEMs to focus on designing a service that responds both to the manufacturers' and the content providers' needs while delivering the in-vehicle media and entertainment experience that consumers desire.

GDPR

Today's connected cars already collect data. With the recently implemented EU General Data Protection Rules (GDPR), consumers have the right to decide which information is collected and shared with manufacturers. By giving vehicle owners options for their entertainment, infotainment can help transform and extend the

relationship between manufacturers and consumers.

With transparency and if done well, the EU GDPR can provide manufacturers with a brand-new way to design services that respond to specific journeys and demographics, providing their customers with an enhanced experience.

The industry is steadily moving towards a fully integrated and ubiquitous future that embraces connected entertainment. To enable it to flourish, manufacturers, suppliers and the connected entertainment industry need to collaborate to bring premium multimedia and entertainment services that consumers want and, perhaps more importantly, are willing to pay for, leading to a new and highly profitable revenue stream for OEMs and content owners.

Robert Guest is vice president for product management at Access Europe