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Authors:

[Daniel A. Murray](#)

Data Use and Monetization Strategies in the Automotive Sector

The automotive industry continues to evolve, especially in how intellectual property is developed and valued. Two areas stand out. One is software catching up to, if not overtaking, hardware in importance. And relatedly, the data created and collected by software is valuable and impacts how companies invest and innovate. This should guide intellectual property decisions in two ways:

- To keep pace, automotive companies must invest in research and development in the software space, including patents.
- Data, often the output of software, is becoming its own intellectual property. Even when outsourced, companies must maintain ownership of data so they can innovate in monetization strategies.

Software Drives Technological Innovation

Automobiles are not just an engine and four wheels anymore. Software is now integrated all over a vehicle. Here are examples:

- There is an infotainment head unit, to control the radio, use navigation, and more. Head units are basically tablets – and need the software to operate like one. A driver interface has to be different than an iPad™ or Android™ interface.
- The On-Board Diagnostics port allows a mechanic to connect and diagnose problems automatically.
- Some cars have Wi-Fi hotspots, meaning the car has a cellular modem, Wi-Fi chips, and attendant software.
- Safety systems, like automatic cruise control or traffic sign recognition, rely on software.
- Self-driving cars will be even more software centric.
- Payment capabilities are possible whereby a chip in the car pays for parking or toll road use.

Software is not only important for onboard functionality. It is also important in vehicle use and analysis. Sensors in the car track location, speed, and brake use. This data can describe a driver's behavior in detail. Software can collect such data, store it, and compare it to other drivers. Car usage is also tracked in other ways. Applications like Uber™ and Lyft™ are used to tell cars where to go and can track consumer preferences and behavior. All of these features require development costs. This can take away from the funds available for body design or other non-software technology. Patenting and protecting software innovations is also paramount.

Data Proves Valuable

With each new software tool in a car, data is created. The possible revenue streams for vehicle data are still being created and innovated. Automotive companies have had to bring more development inhouse to maintain tighter ownership and control of the data collected and maximize their share. For a while, most of the software development needed in a modern vehicle was outsourced to specialists, however, the data is so valuable now that automotive companies have to control it themselves.

Data monetization can take many forms. For instance, user data including speed, brake use, and routes traveled, can be valuable for insurances companies. Crash data such as location, speed, and impact forces can be valuable for police forces. Location and vehicle size can be valuable for services like Uber™. Payment capabilities integrated into a car can be valuable for credit cards, parking spot vendors, and more. Location data may be valuable to advertisers.

Maximizing profit from car data will require innovation in both technology (patents) and in monetization strategy. For the latter, companies will have to maintain control (through agreements) over the collected data.

Future Concerns

As IP ownership continues to evolve in the automotive industry, here's what to monitor going forward:

- Data is facing greater government regulation. Tech companies like Facebook™ and Alphabet™ have faced scrutiny over how they track customers and use consumer data. As car companies begin to resemble Silicon Valley, they will face scrutiny as well. Regulations such as GDPR (General Data Protection Regulation) in Europe, or CCPA (California Consumer Privacy Act) in California, are already applicable to car companies. Consumers may have rights to be forgotten (deleted), or rights to access and portability of data.
- Cars may be able to monitor driver health in the future, as a precautionary measure. This means compliance with even more regulations, including biometric and artificial intelligence laws.
- Traditionally, car companies see each other as competitors, which is certainly true. But with the increased value of software and data, software companies may also become competitors in the automotive space. It may depend on what monetization strategies end up proving most profitable.

Future Strategies

Because car companies may increasingly see companies like MSFT™ as competitors, certain strategies become apparent. To maintain their competitive edge, OEMs will move to protect revenue in dealings with software and computing providers. This competitive shift implies the use of aggressive patenting, software licensing and data use strategies. Without owning the data generated, however, cloud and software providers can capture more value from the sector by securing data use rights to then deliver superior services and algorithms. In turn, providers can improve offerings for all customers to improve consumer experiences and to enable OEMs to unlock new revenue streams.

Questions? Contact [Daniel Murray](#) of Frost Brown Todd's [Mobility & Transportation](#) industry team.

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