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RESEARCH REPORT

Unsettled Legal Issues Facing Data in Autonomous, Connected, Electric, and Shared Vehicles

Jennifer A. Dukarski

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SAE EDGE™ Research Reports provide state-of-the-art and state-of-the-industry examinations of the most significant topics in mobility engineering. Contributors to SAE EDGE™ Research Reports are experts from academia, government, industry, and research who have come together to explore and define the most critical advancements, challenges, and future direction in areas such as vehicle automation, unmanned aircraft, cybersecurity, advanced propulsion, advanced manufacturing, Internet of Things, connectivity, and quantum technology.

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Jennifer A. Dukarski is a Shareholder based in Butzel Long's Ann Arbor office, practicing in the areas of intellectual property, media, and technology. She focuses her practice at the intersection of technology and communications with an emphasis on the legal issues arising from emerging and disruptive innovation: digital media and content, vehicle safety, connected and autonomous vehicles, shared mobility, infotainment, data privacy, and security. Jennifer was named one of the 30 Women Defining the Future of Technology in January 2010 by Warner Communications for her innovative thoughts and contributions to the technology industry. She is a Certified Information Privacy Professional concentrating on US Private-Sector Privacy and data protection law (CIPP/US).

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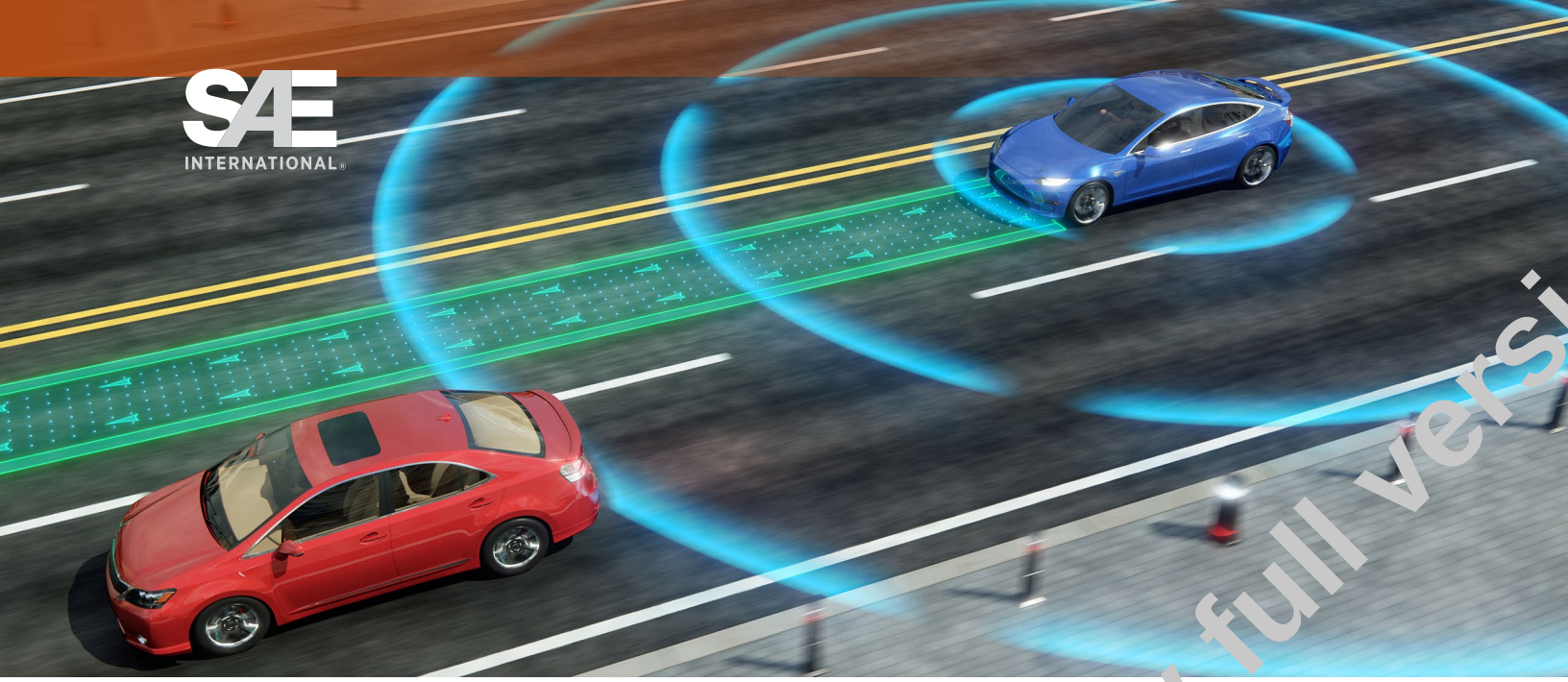

Unsettled Legal Issues Facing Data in Autonomous, Connected, Electric, and Shared Vehicles

Abstract

This SAE EDGE™ Research Report explores the world of data in automated, connected, electric, and shared vehicles. Modern automobiles collect around 25 gigabytes of data per hour, and autonomous vehicles are expected to generate more than 100 times that number. In comparison, the Apollo Guidance Computer assisting in the moon launches had only a 32-kilobtye hard disk. Without question, the breadth of in-vehicle data has opened new possibilities and new challenges. The potential for accessing this data has led many entrepreneurs to claim that data is more valuable than even the vehicle itself. These intrepid data miners seek to explore business opportunities in predictive maintenance, pay-as-you-drive features, and infrastructure services. But at the same time, the use of data comes with inherent challenges including accessibility, ownership, security, and privacy.

This report will examine some of the pressing questions on the minds of both industry and consumers. Who owns the data and how can it be used? What are the regulatory regimes that impact vehicular data use? Is the US close to harmonizing with other nations in the automotive data privacy? And will the risks of hackers lead to the "zombie car apocalypse" (feared by those watching movies like *The Fate of the Furious*) or to another avenue for ransomware? As vehicles continue to generate data, lawmakers and companies are racing to understand the legal parameters and to address the risks posed by collection, processing, and storage issues.

NOTE: SAE EDGE™ Research Reports are intended to identify and illuminate key issues in emerging, but still unsettled, technologies of interest to the mobility industry. The goal of SAE EDGE™ Research Reports is to stimulate discussion and work in the hope of promoting and speeding resolution of identified issues. These reports are not intended to resolve the challenges they identify or close any topic to further scrutiny.

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