



United States of America
Federal Trade Commission

**ACTING CHAIRMAN'S OPENING REMARKS
CONNECTED CAR WORKSHOP**

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I. Introduction

Good morning everyone. Welcome to the joint FTC/NHTSA workshop on connected cars. I want to thank our colleagues at NHTSA for co-hosting this event and their staff and our staff for all their hard work. In particular, I'd like to thank Karen Jagielski, Peder Magee, and Kate White from our Bureau of Consumer Protection, Mike LeGower from our Bureau of Economics, and Bill Adkinson from our Office of Policy Planning. I would also like to thank all of the workshop participants for taking the time from their very busy schedules to make this event a success.

It is no exaggeration to say that the automobile revolutionized the world. It changed where we live, work, and vacation. It shaped the urban and rural landscapes of our cities and farms. It expanded the selection of what we can buy. It destroyed many stable hand and buggy whip manufacturing jobs, but created others like auto mechanic and gas station proprietor. It sparked entire new industries in gas and oil, steel, rubber, asphalt, insurance, and batteries. It affected the laws of liability, introduced a major new cause of mortality, spurred innovation in medical trauma treatment, and drove the development of safety features. And it impacted our culture, becoming a literal vehicle for independence and self-expression.

These were radical changes. And nobody, not even people in the industry, saw them coming. There's a story that in the early 1900s, researchers at a predecessor to German car company Daimler-Benz predicted that there would be a worldwide market for about 1 million automobiles. Yet in 2015, in the U.S. alone, we had 263 million registered vehicles. Even stranger was Daimler's rationale for its prediction: it believed that there were no more than 1 million people available to be trained as chauffeurs.¹

Think of that: In 1900, Daimler didn't think people would drive their own cars. Now think of this: By 2025, 125 years later, they might be right!

In January, at the Consumer Electronics Show, I had my first chance to ride in a fully automated vehicle. This ride at CES brought home to me the potential of this next step in automobile technology. While the Daimler story cautions against specific predictions, I think I'm safe in making a more general prediction that connected car technology could revolutionize the world again.

Imagine the possibilities. The personal benefits are tantalizing: finish last-minute projects or reports on the way to a meeting, squeeze in a nap during a commute, or binge-watch your favorite TV shows together during a family trip. Potential societal benefits are also significant: less traffic, less pollution, faster commuting, and easier parking. And I think we can expect urban development and population patterns to be greatly affected. This technology of connected cars has caught my imagination, and I suspect you all may share my enthusiasm.

Of course, fully automated vehicles are only one type of "connected car." Many cars today already have connected features, and today's workshop on privacy and data security is intended to cover the gamut of existing and future connected car technologies. These include:

¹ See Ulf Pillkahn, USING TRENDS AND SCENARIOS AS TOOLS FOR STRATEGY DEVELOPMENT: SHAPING THE FUTURE OF YOUR ENTERPRISE 167 (2008).

- Cars on the road today with infotainment systems that drivers can sync with their phones.
- Vehicles that can communicate with one another, and with nearby traffic lights and traffic cameras, to reduce accidents.
- And, of course, fully automated – or “driverless” – vehicles like the one I rode in and those currently being tested across the country in cities like San Francisco, Austin, and Pittsburgh.

Every speech, and especially every speech about connected cars, should have a roadmap. So here’s mine: I’d like to discuss three topics. First, I’ll talk about the FTC’s history of considering privacy and data security in the connected car and related spaces. Second, I’ll describe my hopes for what we will accomplish today. Finally, I’ll detail how I hope the dialogue will develop after this workshop.

II. How did we get here?

First, how did we get here? The FTC first began to look at connected cars when we put together our 2013 workshop on the Internet of Things.² We specifically included a panel to examine the privacy and security implications of this expanding industry. In the four years since our workshop, the connected car space has grown exponentially.

Unlike four years ago, today an overwhelming majority of new cars include connected features. Many also include some variety of automated driving assistance, such as adaptive cruise control, blind spot sensing, or lane assist.

And across the country and around the world, new partnerships between cities, AV manufacturers, and transportation companies have sprung up over the last four years, bringing autonomous vehicles to everyday consumers. In Pittsburgh, for example, Uber self-driving cars have been sharing the streets with their human-driven counterparts since September. More

² Federal Trade Commission, Internet of Things - Privacy and Security in a Connected World, <https://www.ftc.gov/news-events/events-calendar/2013/11/internet-things-privacy-security-connected-world> (last visited June 28, 2017).

recently, Waymo began offering free rides to the public in Phoenix, announced that it had logged 3 million driverless rides, and partnered with Lyft to bring connected cars to the market. This past April, the National League of Cities issued policy guidance for cities contemplating entering the autonomous car space.³

Alongside the deployment of new features and innovation, industry has actively considered privacy and data security issues. In 2014, we saw the Alliance of Automobile Manufacturers and the Association of Global Automakers issue their Consumer Privacy Protection Principles.⁴ In 2015, automakers formed the Auto-ISAC to share information about global cybersecurity risks, threats, and vulnerabilities.⁵

III. What do we hope to accomplish today?

So, a lot has changed just in the last four years, which brings me to my next topic: what I hope to accomplish today. Today's workshop provides an opportunity for stakeholders to update us on these new technologies, issues, and methods for addressing those issues. After I conclude, we'll kick off the discussion with a quick succession of expert presenters: NHTSA Acting Executive Director Terry T. Shelton; Jeff Massimilla, Chief Product Cybersecurity Officer at General Motors and Vice Chair of the previously-mentioned Auto-ISAC; and Nat Beuse, NHTSA's Associate Administrator for Vehicle Safety Research.

We'll then hear from a series of panels. The first panel will focus on connected car technologies. Connected vehicles will generate enormous amounts of data – conservative

³ NAT'L LEAGUE OF CITIES, AUTONOMOUS VEHICLES: A POLICY PREPARATION GUIDE (2017), <http://nlc.org/AVPolicy> (last visited Jun. 28, 2017).

⁴ Auto Alliance and Global Automakers, Letter to the Federal Trade Commission (Nov. 12, 2014), *available at* https://autoalliance.org/wp-content/uploads/2017/01/Auto_Alliance_Global_Automakers_Letter_to_FTCRE_Privacy.pdf.

⁵ *See*, Frequently Asked Questions, Auto-ISAC, <https://www.automotiveisac.com/faq.php> (last visited June 28, 2017).

estimates suggest that by 2020 the average connected car will generate up to 30 terabytes of data daily.⁶ Some of this data will be highly personal and sensitive, like real-time geolocation information and biometric data such as fingerprint or iris recognition to identify the car's user.⁷ The panelists will talk about how cars collect or produce data and current and future uses for that data.

The second panel will look at cybersecurity issues. Panelists will discuss potential risks to the security of the data collected by connected and autonomous vehicles. They will highlight industry efforts and discuss the role for self-regulation and government intervention, building on lessons from other industries like aviation.

The third and final panel will focus on connected car privacy issues. The panelists will explore how consumer notice and choice operate in the automobile context, and will discuss the role of federal agencies, including the FTC, in protecting consumer privacy and data security in connected cars.

On this last point, the role of the FTC, I have a few of my own thoughts. Our agency has long been at the forefront of protecting consumer privacy in the connected world, and we will continue to do so in the transportation space.⁸ Our role is to protect consumers' personal and sensitive information and prevent unreasonable data security practices, within a framework that allows continued innovation and growth. Our approach is one of regulatory humility,

⁶ SAS, *THE CONNECTED VEHICLE: BIG DATA, BIG OPPORTUNITIES 1* (2015), available at https://www.sas.com/content/dam/SAS/en_us/doc/whitepaper1/connected-vehicle-107832.pdf.

⁷ Justin Lee, *Automotive Industry Increasingly Adopting Biometric Technologies*, BIOMETRIC UPDATE (FEB. 8, 2017), <http://www.biometricupdate.com/201702/automotive-industry-increasingly-adopting-biometric-technologies>.

⁸ See, e.g., FEDERAL TRADE COMMISSION, *PRIVACY AND SECURITY UPDATE* (2016), https://www.ftc.gov/system/files/documents/reports/privacy-data-security-update-2016/privacy_and_data_security_update_2016_web.pdf.

remembering that predicting the future – including future benefits and harms – is difficult.⁹ The FTC Act directs our focus to actual or likely consumer injuries. And it requires us to understand the likely benefits and risks of connected cars.¹⁰ One key piece of context for that assessment: according to the National Safety Council, in the U.S., approximately 40,000 people died in car accidents during 2016.¹¹ Connected cars promise to significantly reduce such fatalities.¹² We regulators must keep that benefit in mind to ensure that our approaches to connected cars do not hinder such a positive outcome.¹³ And at the FTC it means we must continue to work with our sister agencies, like NHTSA, to avoid unnecessary or duplicative regulation that could slow or stop innovation, and ultimately leave consumers worse off.

IV. Where do we go from here?

So finally, where do we go from here? I expect that every stakeholder in today’s discussion shares a common goal: to foster the development of connected cars while protecting privacy of consumer data and encouraging strong security practices. To achieve this goal, we need further work in three key areas.

⁹ See Maureen K. Ohlhausen, Comm’r, Fed. Trade Comm’n, *The Internet of Everything: Data, Networks & Opportunities*, Remarks at the U.S. Chamber of Commerce Center for Advanced Technology & Innovation, at 6-7 (Sept. 22, 2015), available at

https://www.ftc.gov/system/files/documents/public_statements/804001/150922remarkscommko.pdf.

¹⁰ See 15 U.S.C. § 45(n) (FTC may only declare unlawful an “act or practice [that] causes or is likely to cause substantial injury to consumers which is not reasonably avoidable by consumers themselves and not outweighed by countervailing benefits to consumers or to competition.”).

¹¹ National Safety Council, “2016 Motor Vehicle Deaths Estimated to be Highest in Nine Years,” <http://www.nsc.org/learn/NSC-Initiatives/Pages/Fatality-Estimates.aspx> (last visited Jun 28, 2017). See also, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, TRAFFIC SAFETY FACTS – 2015 (June 2017) (reporting 35,092 traffic fatalities in the United States in 2015), available at <https://crashstats.nhtsa.dot.gov/Api/Public/Publication/812412>.

¹² See generally, Remarks of Dr. Mark R. Rosekind, NHTSA Administrator, at Federal Automated Vehicles Policy Public Workshop (Dec. 12, 2016), <https://www.nhtsa.gov/speeches-presentations/remarks-federal-automated-vehicles-policy-public-workshop-0>

¹³ See Adam D. Thierer & Ryan Hagemann, REMOVING ROADBLOCKS TO INTELLIGENT VEHICLES AND DRIVERLESS CARS, 5 WAKE FOREST J.L. & POL’Y 339, 353 (2015).

First is consumer and business education. The FTC provides extensive business guidance and consumer education about privacy and data security.¹⁴ Car companies and other businesses can benefit from reviewing our materials on protecting personal information, our *Start with Security* campaign containing ten key data security lessons, and our *Careful Connections* guide, which specifically addresses connected devices.¹⁵ In addition to general materials on privacy and security, there may be additional, more specific opportunities for education. For example, last summer, the FTC issued guidance to companies and consumers on protecting consumer privacy in rental car transactions. To rental car companies, we suggested that they establish policies and procedures to delete consumer data from infotainment systems when a rental car is returned. We also offered parallel advice for consumers.¹⁶ I hope that today's discussion will generate ideas for additional consumer and business education.

Second, where necessary and appropriate, we will use our civil law enforcement authority under Section 5 of the FTC Act to take action against manufacturers of connected devices, included connected cars, and potentially, service providers. In the past, we have brought cases involving connected routers, cameras, and TVs.

But in the connected car space, we want to exercise our authority responsibly while avoiding overlap, conflict, or duplication with NHTSA. One way to do this is through regular coordination. I think we can draw lessons from our substantial experience with health privacy.

¹⁴ See, e.g., FEDERAL TRADE COMM'N, PRIVACY AND SECURITY UPDATE (2016), https://www.ftc.gov/system/files/documents/reports/privacy-data-security-update-2016/privacy_and_data_security_update_2016_web.pdf.

¹⁵ FED. TRADE COMM'N, CAREFUL CONNECTIONS: BUILDING SECURITY IN THE INTERNET OF THINGS (Jan. 2015), available at <https://www.ftc.gov/tips-advice/business-center/guidance/careful-connections-building-security-internet-things>.

¹⁶ FED. TRADE COMM'N, LEAVING INFO BEHIND, IN (RENTAL) CARS (Aug. 30, 2016), <https://www.ftc.gov/news-events/blogs/business-blog/2016/08/leaving-info-behind-rental-cars>; FED. TRADE COMM'N, WHAT IS YOUR PHONE TELLING YOUR RENTAL CAR (Aug. 30, 2016), <https://www.consumer.ftc.gov/blog/what-your-phone-telling-your-rental-car>.

In that area, we coordinate frequently with the Department of Health and Human Services. For example, we often decline to pursue cases that HHS is pursuing. We also work together to provide guidance to the public regarding the agencies' respective roles. Last year, for example, we issued guidance about the laws each agency enforces related to health apps.¹⁷ Such coordinated guidance could be a fruitful area for future connected cars work.

Finally, I urge Congress to consider data security and data breach notification legislation to strengthen the Commission's existing data security enforcement tools and require companies to notify consumers when there is a security breach. Reasonable and appropriate security practices are critical to addressing the problem of data breaches and protecting consumers from identity theft and other harms. Notifying consumers of breaches after they occur helps consumers protect themselves from any harm that is likely to be caused by the misuse of their data. These principles apply equally to connected cars.

V. Conclusion

So that's where we've been, what I hope we'll accomplish today, and where we're going in the future. Today's workshop gives us the opportunity to further educate ourselves and the public about connected car technologies, and to continue an important conversation about how we can all work together to best ensure that the full benefits of this technology are realized.

Thank you all for coming and I look forward to today's conversation.

¹⁷ Press Release, Fed. Trade Comm'n, FTC Releases New Guidance For Developers of Mobile Health Apps (Apr. 5, 2016), available at <https://www.ftc.gov/news-events/press-releases/2016/04/ftc-releases-new-guidance-developers-mobile-health-apps>.