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Living Mobility Spotlight

Q&A series



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Living Mobility

What is Living Mobility? It is easier to say what it is not. The automotive industry is no longer focused on the traditional vehicle. Not only are the vehicles changing but we are now focused on mobility: different modes of travel for people and goods all connected in new and evolving ways. As this sector changes it will also change how we live because it will change how we move, are connected and even what we do. Living Mobility is an attempt to capture this vibrant evolution of not just our vehicles, and of our mobility networks, but of how we live.



Changes of this magnitude take time. But the rate of change is rapid. Companies development of technology and with it new business models will combine with changes in consumer demand and government regulation to create the future. Change of this magnitude generates a host of novel business, legal and policy issues. We envision Living Mobility broadly with four key characteristics: **Living Mobility is Objective, Inclusive, Unifying, and Sustainable.**

These four elements comprise various opportunities and challenges where are highlighted in the following Living Mobility Spotlight Q&A Series.

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Self-Driving



Living Mobility is
Objective

Living Mobility is Objective Spotlight on AI and consumer trust

In conversation with Mark Brennan, Lead Innovation Partner, Global Leader Technology and Telecoms Sector Group

Objective Living Mobility broadly encompasses fairness and transparency in the use of new mobility-improving technologies. As artificial intelligence (AI) paves the way for increasingly integrated transport systems, manufacturers are joining forces with service providers and software developers to deliver innovative mobility solutions. But the promise of AI-enabled transport is not without its challenges. Connecting all hurdles is the crucial need to build consumer trust. Mark Brennan discusses a few of these challenges and the overarching importance of prioritizing consumer trust.

Featured speaker



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What should the mobility and transportation industry keep in mind about consumer trust and AI?

Brennan: It is going to be increasingly critical that our mobility clients be transparent with consumers. The details matter. We are seeing a lot of rapid legal, regulatory, and policy developments for autonomous vehicles (AVs) and unmanned aerial vehicles (UAVs), ridesharing, and micromobility like e-scooters. But long-term success in the market will almost certainly depend on maintaining consumer trust. Data protection, service terms and conditions, and fee structures all can significantly impact consumer trust.

Our clients are innovating to change the world, and we are their strategic advisors. It's really important that we bring an innovative mindset and continually look for opportunities to enhance our services and help them find creative new solutions to their challenges.

We also need to be mindful that assessing risk involves more than the immediate legal issues – long-term impact and reputational harms also play an important role.

What AI developers consider when approaching commercial agreements with manufacturers and service providers?

Brennan: For AI, one question for developers is at what points you need to ensure that somebody is maintaining a level of control. It's not enough to say "We trained the AI and then it decided everything after that."

As advisors, we must make sure that our clients build processes and protections that go beyond core compliance in their commercial agreements.

Is it possible to harmonize service offerings and regulatory compliance?

Brennan: You want your suppliers to be partners, and you want all stakeholders to be aligned and incentivized to identify and address AI concerns throughout the life of the agreement.

How can industry work with government to balance consumer protections with technological investments?

Brennan: We need a thoughtful, comprehensive, and balanced approach. We are seeing a race among some regulators to see who can "regulate more," especially on consumer protection issues.

There seems to be a presumption by some that more regulation is automatically better, without any critical assessment.

There needs to be a holistic approach taken with the first step being a fulsome analysis of whether and to what extent any new requirements are needed, or if there are sufficient developments in the marketplace to protect consumers.

There is also an opportunity for industry leadership, and it's incumbent on stakeholders to make sure regulators are fully informed on the latest marketplace developments and innovative services.



ONE WAY

NO STANDING
Anytime



Living Mobility is
Inclusive

Living Mobility is Inclusive Spotlight on 5G enabled accessibility

In conversation with Ari Fitzgerald, Partner

Inclusive Living Mobility encompasses equity and transparency in the use of mobility-improving technologies. Service providers, disability advocates, and automakers are working together to address some of the mobility challenges experienced by people with disabilities. Potential solutions include automated and standardized transit functions that otherwise require the assistance of other people. But automating and standardizing functions require a reliable signal and the lower latency made possible by 5G. Ari Fitzgerald discusses a few of the challenges specific to 5G and accessible transport options.

Featured speaker



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What are some of the policy considerations relating to 5G that the mobility and transportation industry should keep in mind?

Fitzgerald: As a policy matter, the mobility and transportation industry should be thinking in advance about the accessibility of its designs. At the highest level of automation, an autonomous system will make it safe for people who are physically incapable of ever operating a standard automobile to be transported in the vehicle without any other person being present. We should strive to make sure that those with physical disabilities that prevent them from taking over control of a vehicle in which they are being transported have essentially the same ability to benefit. This is similar to a concept long embraced by the communications industry called universal design.

What is universal design?

Fitzgerald: Universal design establishes as a primary goal for any developer of products or services that they be universally accessible. The communications industry has embraced universal design for many years. While it may seem intuitive now, it was not so when cell phones were first introduced. Initial cellphone designs made it difficult for many people with physical disabilities to use them. Individuals with hearing loss, for example, were unable to use early generation cellphones without attaching clunky TTY devices, which essentially eliminated the benefits of mobility. The first generation of digital mobile phones could not be used by people who wore hearing aids. They also could not be operated simply via voice commands and brail was not included on their keypads, making use by the blind virtually impossible.

This led Congress to pass Section 255 of the Communications Act in 1996. That law required that telecommunications services

and equipment be made accessible to people with disabilities if “readily achievable.”

In 2010, the Twenty-First Century Communications and Video Accessibility Act (CVAA) expanded upon these congressional efforts and updated the law for modern communications.

How would universal design apply to the mobility and transportation industry?

Fitzgerald: As the mobility and transportation industry moves towards autonomous vehicles, revenue generation will depend largely on selling the experience. Automakers should think of ways to import universal design concepts into their vehicle interiors in particular.

How would universal design apply to the mobility and transportation industry?

Fitzgerald: As the mobility and transportation industry moves towards autonomous vehicles, revenue generation will depend largely on selling the experience. Automakers should think of ways to import universal design concepts into their vehicle interiors in particular. Broadly speaking, the mobility and transportation industry should be thinking in terms of universal design (i.e., ensuring at the conceptual stage that the total experience is designed in a way that makes it accessible to the greatest number of people possible at the outset of the offering, as opposed to later through accommodations and adjustments) and incorporating this concept into whatever tech-based mobility offerings they are developing.

What is the role of government subsidies in expanding 5G to rural areas?

Fitzgerald: Many expect 5G to soon enable faster and more reliable communications within cities. Theoretically, the same benefits could be realized in rural areas – but deploying advanced communications

networks in sparsely populated areas is very expensive. From the very beginning, the U.S. Congress and regulators recognized that bringing new infrastructure (roads, electricity and, yes, communications) to rural areas would be more expensive than bringing that same infrastructure and services to cities. Yet, they decided that as a public policy matter it would not be appropriate to leave rural infrastructure deployment exclusively to the whims of the marketplace. That is why government subsidies were provided to ensure that a basic level of infrastructure and service would be affordable to people in rural as well as urban areas. So should it be with 5G because 5G will not reach rural areas based on market forces alone.

What regulatory hurdles might impede the development of 5G-enabled accessible mobility?

Fitzgerald: For many years, the FCC has focused on getting licenses to operate over large chunks of the radio spectrum required to support 5G in the hands of commercial mobile providers in the hope that they would deploy advanced networks broadly. More recently it has focused on breaking down other barriers to 5G deployment, including local governmental regulatory barriers that make densification of communications infrastructure (and the capacity gains created thereby) more cumbersome, and the sheer cost of deployment in sparsely populated areas.

The FCC's role is to do everything in its power to get 5G networks deployed to as many places as possible. We have a recent smart example. In May, the FCC proposed to redefine the amount of subsidy it provides to support rural mobile broadband through the use of reverse auctions, which essentially award the subsidies to those companies that are willing to submit the lowest bid in the auction to cover and serve a particular rural area. In this way, the FCC is adding an important competitive element to its rural subsidy program, which should help ensure that limited government subsidy

funds are stretched as far as possible. If the lowest-cost provider doesn't end up serving the communities it indicated it would serve in the reverse auction, it can be sanctioned and forced to repay the government subsidy.

It is important to remember that the FCC focuses most of its efforts on directly regulating communications services and the infrastructure used to provide those services. For the most part, the FCC will not be involved in directly regulating the mobility and transportation industry. With that said, the mobility and transportation industry will increasingly be affected by the FCC's decisions, especially in the areas of spectrum, 5G, and accessibility, as it continues to roll out autonomous vehicle technology.





Living Mobility is
Unifying

Living Mobility is Unifying Spotlight on blockchain and data sharing

In conversation with John Salmon, Partner

Living Mobility is Unifying. The coordinated efforts of geographically and economically disparate groups will improve mobility solutions. Efforts to share among partnering entities the training data for autonomous vehicles is a critical aspect of the development process. But valuable technology – brimming with potential – also comes riddled with legal issues. John Salmon discusses some of these issues relating to data sharing, data privacy and the use of blockchain.

Featured speaker



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Why is data so valuable to the mobility and transportation industry?

Salmon: Modern artificial intelligence (AI) thrives on data – the more data you give the AI, the more accurate the models AI. Machine Learning is the process through which the systems in the autonomous vehicles (AVs) learn the parameters of the operational design domain within which the systems complete certain dynamic driving tasks.

Broadly speaking, society has become increasingly reliant on data in daily life and the resulting challenge concerning data value generally revolves around control and ability to use.

If the value of data continues to climb, what should the mobility and transportation industry keep in mind about managing data resources?

Salmon: Beyond the increasing value of data, the fuel of AI training, industry should consider the sheer volume of data to be managed. Together, the increasing value and the vast volume of data set the stage for a battle brewing about who owns data. Specifically, the battle is about access to and control of the data. It's not just a battle of AV developers but manufacturers, insurers, and suppliers – along the entire supply chain. And blockchain is one way to address the complexity of managing vast amounts of data.

What is blockchain?

Salmon: Blockchain is a form of distributed ledger technology (DLT) that makes it possible to store data on numerous nodes on a network with identical entities stored across the DLT network. In this way, DLT makes it difficult for any users to gain control of the network unless it is possible for them to gain control of over 50% of the network nodes. The appeal is that blockchain technology increases transparency through traceability of data entries on the network and improves efficiency by removing intermediaries and transaction costs. Financial institutions and the insurance industry already use blockchain to manage data.

How might distributed ledger technology be used in the mobility and transportation industry?

Salmon: There are many blockchain use cases for the mobility and transportation industry. From warehousing to payment for shared services, to delivery tracking, distributed ledger technology offers the same possibilities for transactional efficiency as it does in financial institutions.

Businesses along the supply chain could also use blockchain to move data internally and with outside partners without compromising privacy. For example, AV data sharing amongst agreeing manufacturers turns on privacy research that you can bring an algorithm to data and train AI models collectively. The value proposition is that it is possible to come to an agreement with other organizations without giving up privacy of the underlying data.

For the mobility and transportation industry, there are a myriad of possibilities around sharing data and working together across trust boundaries to get things done.



Living Mobility is
Sustainable

Living Mobility is Sustainable Spotlight on climate change and EVs

In conversation with Mary Anne Sullivan, Senior Counsel

Environmental sustainability is a primary goal of the mobility future many envision. To reduce the environmental impact of transportation, sustainable energy sources are needed and transportation modes need to minimize GHG production. Electric Vehicles (EVs) are a significant aspect of this effort as they are a focus of policy-makers and the industry. Market predictions forecast over half of all passenger vehicle sales to be electric by 2040. But the success of these electrification efforts depends on complex factors like policy, cost parity, consumer trust and charging point availability. Mary Anne Sullivan discusses a few of these factors impacting EV development worldwide.

Featured speaker



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How is electrification impacting the mobility and transportation industry?

Sullivan: Some rail has long been electric. Other sectors are behind the automotive industry when it comes to electrification. The aviation and maritime industries are facing pressure to reduce their carbon emissions. So I expect changes will be coming, but they are not commercially viable yet.

How will the pandemic impact EV development?

Sullivan: Electric vehicle (EV) development is experiencing the same COVID-19 pandemic-related market slowdowns as the rest of the transportation industry. But there is no reason to think that the impact will persist in the long term. Lots of new vehicle models are ready to be rolled out.

Will energy efficiency regulations accelerate or impede EV adoption?

Sullivan: In the U.S., fuel efficiency standards have historically been the primary driver of EV adoption. In Europe, concern about climate change has been behind the growth of EVs. In China, fuel efficiency, air quality, and climate change all support EV deployment. Going forward, I expect to see more emphasis on climate change rather than fuel efficiency standards driving EV adoption in the U.S.

What is range anxiety?

Sullivan: In the context of EVs, range is the distance an EV can travel before recharging. Range anxiety refers to concern that an EV has insufficient battery power to reach its destination – or the next charging point. Range anxiety is a significant deterrent for many consumers to take the plunge on an EV.

To overcome range anxiety, how can industry work with government to build out EV infrastructure?

Sullivan: State-by-state in the U.S. and at the national level around the world, both governments and individual companies are increasingly focused on reducing carbon emissions. That creates a shared interest in developing charging infrastructure. For example, New York recently approved a more than US\$700 million request by utilities in the state for funding to build out charging infrastructure.

What can be gleaned from jurisdictions around the world about facilitating EV adoption?

Sullivan: The main message is that policy matters. The technology is ready; the infrastructure appears when the demand is there. But the places where EVs are most common are where government policy – either mandates or incentives – has been supportive. California and Norway see the highest EV penetration. Both were early adopters of strong climate policies. A recent study by the International Energy Agency showed that aggressive policies supporting EVs could almost double the level of EV sales by 2030, compared to more modest policies.

How can industry promote ethical sourcing in EV battery supply chains?

Sullivan: Cobalt is an essential mineral used in lithium-ion batteries. More than half of the world's cobalt comes from mines in the Democratic Republic of Congo. Because independent miners sell cobalt to bigger mining companies before it gets to OEMs, it can be hard to know if the cobalt is ethically sourced. One potential solution could be for manufacturers and suppliers to agree to track sourcing across global supply chains. It is important that OEMs work closely with suppliers to monitor materials going into the lithium-ion batteries.



Mobility and Transportation

Our global sector group reflects the realities of converging transportation modalities in a hyperconnected mobility future. You don't operate in silos – neither do we. Grounded by experience in the following industry sectors: Aerospace and Defense, Automotive, and Transport and Logistics. We go beyond monitoring and anticipating emerging trends. We analyze their legal impact to help you confidently adapt to changes that are already here and changes yet to come. Are you ready for the future?

Top trends to watch:

- Combining all modes of transport.
- Consumers accepting robots.
- Consumers requesting content.
- Current vs future business investments.
- Enhanced Connectivity, Telematics and Infotainment (5G).
- Health, Privacy and Cybersecurity concerns.
- Impact of trade control on production and technology.
- Interior design transformation.
- Mass transit transformation.
- Micromobility.
- More virtual testing.
- Return of ownership.
- Shared platform technologies.
- Smart cities.
- Sustainable Transportation and Living Mobility.

Innovative mobility revolves not only around the path to a fully automated future, but also connectivity, electrification, and trends towards shared services across all modes of transport. Whatever the pace, we understand industry disruption presents challenges and possibilities. We embrace the opportunities disruption creates. Your goal is to transform industry vision into consumer reality – moving goods or people, by land, air, or waterways. Our goal is to facilitate your innovative process and help you achieve a competitive advantage while minimizing risk. With an eye towards global resilience, we are equipped to help you navigate industry hurdles and capitalize on disruptive opportunities today, tomorrow, and in the years ahead.



Awards and rankings

- Tier 1 in Transport: Rail and Road – Litigation and Regulation, *Legal 500*, United States, 2020
- Band 1 in Transportation: Road (Automotive), *Chambers USA*, 2019-2020
- Transportation Practice group of the Year, *Law360*, 2019
- Tier 1 in Transport: Rail and Road – Regulation, *Legal 500*, United States, 2018-2019
- Band 2 in Transport: Rail and Road – Litigation, *Legal 500*, United States, 2018-2019
- Band 1 for Transportation: Aviation: Regulatory Nationwide, *Chambers USA*, 2016-2019
- Tier 1 or Top - Tier Firm for Transport: Aviation and Air Travel: Regulation, *Legal 500*, United States, 2018-2019
- Band 1 in Transportation: Road (Carriage/ Commercial), *Chambers USA*, 2008-2018



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