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ata has become one of the most sought after commodities from the ongoing incorporation of new

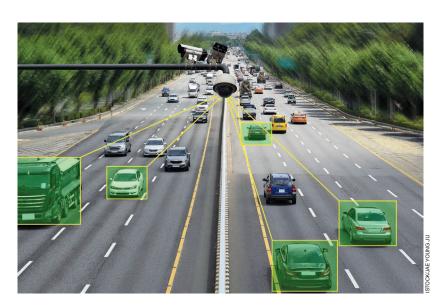
"mobility-"focused and "smart city" innovations into communities. This includes collection of user data from rides with transportation network companies (i.e. Lyft, Uber, and Via), to autonomous vehicle demonstration projects and dockless micromobility deployments, in addition to sensors being placed in the public right of way. However, with the proliferation of data collection across multiple industries, important legal and policy questions arise around who owns the data being collected, what rights users have over the use of data collected, and whether there is a duty to better inform users around growing privacy concerns from the collection of mass amounts of user data, even if it is claimed that such data can be anonymized or generalized.

Events include the testimony of Facebook's CEO on the U.S. Capitol Hill discussing how consumer-provided data is used for profit, the significant disruption to City of Atlanta services from a ransomware attack currently estimated to have economic impacts of near \$3 million, and the first known fatality involving a self-driving vehicle. These incidents demonstrate both the opportunities and challenges that come with the continued integration of technology into

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Autonomous Vehicles and Unmanned Aerial Systems

Data Collection and Liability



our lives. Many are rightfully excited about the opportunities, especially from an efficiency perspective, that smart city innovations offer. But many of the evolving questions around untested legal issues, such as data collection of citizens using public sidewalks and streets with municipal approved sensors, are often not understood or given appropriate consideration as new technologies are deployed in communities.

The recent *Carpenter* decision in the United States Supreme Court offers a glimpse into how the issue around privacy in a new era focused on innovation and data may evolve — and whether walking along a public street is an affirmative consent to the collection of data from a cellphone in one's pocket, or if a route may need to be provided that is "data collection free" to allow an opportunity for a citizen to opt-out

of a smart city program. Having to provide such a route would obviously create logistical issues and may deter a community from moving forward with a project that could lead to better use of resources by using data for both a planning and project prioritization perspective. Also, the important conversation around the collection of "mobility data" is rightfully gaining momentum following the unpredicted arrival of dockless scooters and the continued implementation of the Mobility Data Specification by many cities in the United States.

New innovations continue to make their way into every aspect of our being (and commute). These include personal digital assistants like "Alexa" and "Siri," to apps that bring services literally to our fingertips, to the ongoing deployment of self-driving vehicles and unmanned aerial systems. With the benefits, most tangibly in the form of convenience, that come from new technologies, also come risks that are often little understood, or more accurately, are ignored. Today, when using technology, it appears ignorance is indeed bliss. This begs the question from both a legal and policy standpoint around whether or not a duty exists to inform often unsuspecting citizens about what data is being collected, how that data is being used, and perhaps most importantly, whether or not data is being sold to a third party in exchange for use of a certain app or technology device.

A place to start the conversation around the potential need for evolution concerning consent is the infamous "Terms of Use" that have become a passively accepted part of nearly every online or "ondemand" transaction. Not only is length a deterrent to reading such terms, but knowing that you have little (or more realistically no) negotiating power provides little incen-

tive to better understand what a user is agreeing to. Instead users quickly click "accept" for access to apps like Facebook or Twitter that allow communication with millions of people rather effortlessly, or Lyft, Uber, Lime, or Waymo that provide on-demand mobility.

Normally, when entering into an agreement that involves rights being waived (especially significant rights like the right to trial or agreeing to limit damages that can be collected in the event of harm from use of a product or app), one would argue that "informed consent" is needed in order for a binding

agreement to be created. But, in this day in age, when few actually read the Terms of Use (and, even fewer when such Terms of Use are updated), there does not appear to be a meeting of the minds when it comes to consumers truly understanding the conditions that come with

the convenience of a technology like on-demand mobility or dockless micromobilty.

The danger that consumers are not clearly consenting to conditions they have read and understand is a potential impediment to the continued adoption of new and larger innovations like self-driving vehicles and unmanned aerial systems. These innovations are anticipated to collect large amounts of personal data from a "driver/ operator/rider" (we are still working on those definitions) or drones navigating the air or ground with cameras attached. (See new FedEx commercial here: https://www .theverge.com/2019/2/27/18242834/ delivery-robot-fedex-sameday-botautonomous-trials.) As we are seeing with the ongoing discussion around Facebook and its use of data for profit (disturbingly, to the surprise of many members of the

United States Congress), not clearly disclosing risks can lead to a loss of users, a sentiment of mistrust towards technology companies, and a growing call for regulation.

While legal mechanisms like mandatory arbitration have been approved by use in certain instances as high as the United States Supreme Court, the road forward is uncertain when thinking about merging new technologies like autonomous vehicles with such conditions in Terms of Use. The issue of forced arbitration clauses was one of the speed bumps that could not be over-

Do we need to upgrade from "Informed Consent" to "Informed Risk"?

come for the "AV START" Act, which stalled in Congress last year. As we know all too well, the law is working to catch up with the fast pace of innovation being incorporated into our communities. This is likely to continue to be an area of debate that requires careful consideration and updating with the continued deployment of autonomous vehicles and drones, and the inevitable accidents that are to come.

For autonomous and semi-autonomous vehicles, the issue of transparency and informed consent is playing out through the recent fatality involving an Uber autonomous vehicle and a growing number of deaths to date from cars with Tesla "autopilot" engaged. These incidents call into question the obligation of companies to accurately disclose to consumers the true capabilities of a vehicle being touted as "autonomous." Does

the vehicle require a person to be ready to take back control of a vehicle if the autonomous system disengages or fails, or can a person enjoy a fully automated experience with the vehicle truly being able to monitor and engage in the of Use that clearly and succinctly inform consumers upfront (rather than buried in the middle of cumbersome terms that few read, even if capitalized) of any rights being waived, how data will be collected and used, and any potential risks

from a technology (similar to requirements around the advertisement of pharmaceutical drugs).

Many will quickly discount an informed risk approach to technology as burdensome, cumbersome, and an unneeded impediment to innovation. But hitting "refresh" on the current Terms of Use model

allows consumers to better understand and weigh any risks with the benefits of using a technology. This will promote more trust and greater long-term consumer adoption. It likely will engender more loyalty (and less legal exposure for data focused companies) when we have our next "Facebook moment." Such an approach could also deter the growing skepticism around new technologies that generate difficult privacy considerations such as facial recognition, which has been banned in San Francisco and Oakland, with other cities considering similar prohibitions. Our goal with innovation should be promote productive and transparent demonstration and learning, rather than wholesale

banning or opting-out of technology due to concerns around citizen or consumer trust.

Collaborating to proactively address privacy and transparency around issues like data collection can set the foundation for then considering the significant gap that will exist between those who have accepted Terms of Use (i.e., through using services delivered by Waymo or Amazon) and those who have not. Instead of waiting for the law to catch up with technology, or instead of passing laws that may be overly restrictive at this early stage of deployment, we can develop legal guardrails that can flex and bend as these exciting transportation innovations mature and as important legal and policy issues arise. With a focus on collaboration between the public and private sector, in addition to citizen engagement, the path towards the promotion of both short-term adoption and longterm success of such innovations becomes smoother.

Hitting "refresh" on the current Terms of Use model allows consumers to better understand risks and benefits of new technology.

vehicle's operational domain? This distinction will also be an important part of determining future liability for accidents involving autonomous vehicles.

If mistrust grows around the use of data by companies, or potential claims from an injury or death from using a private-fleet-operated self-driving vehicle is found to be "unknowingly" limited, we may experience a slowed adoption of new innovations. Worse yet, technologies that offer potential societal benefits, such as enhanced mobility for underserved communities and disabled and aging populations, might not come to fruition.

A potential solution is a movement by companies towards Terms

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