

THE DISPATCHER

TELEMATICS INDUSTRY INSIGHTS BY MICHAEL L. SENA

October 2018 – Volume 5, Issue 12

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This DELEWARE & HUDSON ten-wheeler, belching coal smoke and steam, is rolling through the aptly named city of Carbondale, Pennsylvania. The photo was taken on the 9th of November 1951. The D&H was started to transport anthracite coal from the Lackawanna Valley, where Scranton is located, to markets all along the eastern seaboard. D&H, DELAWARE, LACKAWANNA AND HUDSON and CENTRAL RAILROAD OF NEW JERSEY lines ran through the center of Scranton. Before the invention of clothes dryers, when laundry was hung on a line to dry, a loud 'hallelujah' chorus went up when the steam engines were replaced by diesels in the mid-1950s. For us kids, the steam trains were more fun to watch.



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Where Are We Going with Our Road Infrastructure

“I would like you to consider how the altering landscape of the automotive industry might impact our current infrastructure spending gap as it pertains to roads and highways, not only the requirement for new roads but to maintain our existing networks given the expected population growth and urbanization.”

Request to THE DISPATCHER from
Eric DesRoche
Manager Infrastructure, Business
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AUTODESK STRATEGIC BUSINESS INNO-
VATION

1. https://en.wikipedia.org/wiki/List_of_bridge_failures



The Ponte Morandi motorway bridge in Genoa, Italy collapsed on the 14th of August 2018. This is an image after the collapse.

A BRIDGE COLLAPSED in Genoa, Italy on the 14th of August. Forty-three people have died so far. Local and national officials are looking for the answer to why this tragedy occurred, while the driving public everywhere wonder if any bridge is completely safe. Was the Morandi Bridge design faulty? Did the torrential rains that fell prior to the disaster put unplanned for stress on the structure, causing it to crumble? Were those who were responsible for bridge maintenance and repair, AUTOSTRADE PER L'ITALIA, derelict in their duties, either by not properly inspecting it or allowing repair work to be done in a poor manner? Did politicians underfund construction when the bridge was built by what was then the public company, AUTOSTRADE, in 1967, or withhold the funds required to keep it in proper order up until the time the government sold AUTOSTRADE in 1999 to an entity that later became ATLANTIA S.p.A.? Or was it some of all of the above?

Prosecutors in Italy are in the process of trying to determine the cause or causes and identify who is responsible.

Whatever the answer is to why one bridge collapsed with a major loss of life, it is not an isolated incident. I did a search of bridge failures.¹ Just in the period from December 2000 to the 5th of September 2018, there have been 109 major bridge collapses around the world with 919 people killed. In one of the worst of these, in Portugal in 2001, a masonry and steel bridge built in 1887 failed as a result of its pillar foundation becoming compromised due to years

of illegal sand extraction in its vicinity. The central span collapsed and 59 people died.

How we have financed, built and maintained our road transport infrastructures over the centuries is a fascinating story, not the least because the methods vary so greatly among all the regions of the world. From the invention of the wheel 7,000 years ago and the first paved

roads in India and Mesopotamia 4,000 years ago, we are now living at a time when road transport is the dominant means of moving people and goods in all those areas categorized as 'more economically developed countries' by the United Nations. However, keeping this road infrastructure in suitable repair to ensure safe passage is becoming more difficult as the willingness of citizens to pay for the privilege, either directly through tolls or indirectly through taxes, appears to be on the wane.² Will new modes of travel, new methods for powering vehicles, or the changing nature of moving on roads with driverless vehicles improve our ability to finance the building and maintenance of the road transport infrastructure, or will it simply exacerbate the current problem?

2. See THE DISPATCHER, February 2018, *Musings: Why can't we afford it any longer?*

Paying for the privilege of passage

Driving, riding or walking on roads built by others has never been free. You always had to pay for the privilege, either to the ones who built the roads or to the bandits who patrolled them. For most of history, it was usually both. The Romans collected tolls along the 85,000 kilometers of the roads they built from riders in the *raeda*, like the one depicted in this 2nd century A.D. relief. In the 14th century or thereabouts, somewhere in England, someone came up with the idea of a revolving gate, called a 'pike'. To enter or exit a road, you had to pay a toll, and then the pike was turned so that you could pass through. The 'turnpike' was born and lives on today.



Roman roads were ordered and paid for by the state, as were those of earlier empires in Egypt and Persia and in the 8th century by the Arab Empire. Up until the 18th and 19th centuries, road building in most of Europe was the responsibility of villages and their land owners who were directed by the nobles and the Church to build roads at their own expense to ensure that the various kings could move their households, the armies could meet their enemies and all the people could attend mass. In 1707, the British Parliament established the *Turnpike Trusts* with the responsibility of building and maintaining roads and collecting tolls to pay for them. The *Turnpike Trust* idea spread throughout the British Empire. In 1841, the Swedish Royal Board of Public Road and Waterway Construction was established. This would become the Swedish Transport Administration. It was charged with the distribution of money for building and maintaining roads, bridges and canals. Similar administrations were established in other parts of Europe.

Around 1850, railroads began to operate, and together with steamboats, they reduced the focus of both public and private interests on roads. It took the invention of dynamite by Alfred Nobel (to blast through mountains to make roads straighter) and the invention of the modern automobile by Messrs. Karl Benz, Gottlieb Daimler and Wilhelm Maybach to re-focus attention on building new roads and maintaining them so they were drivable. Improvements were made to the Macadam roads of the early 19th century built of stone to smooth the surface for rubber tires, and then came the modern tarmac roads patented by Edgar Purnell Hooley in 1901.

Who should pay for building and maintaining roads?

This question seems to have been asked from time immemorial. Should it be only those who actually use the roads, or should it be all members of society who benefit both directly and indirectly from the fact that roads exist and can be used for all types of transport? It is a similar question to who and how schools, hospitals or recreational facilities should be paid for. The question has been addressed differently all over the world. Countries like Italy, France and Austria have tolls on their highways, while countries like Germany, the U.K. and Sweden do not.³ In the U.S., prior to the *Federal Aid Highway Act of 1956* and the establishment of the *Highway Trust Fund*, roads were financed either through the many turnpike authorities,⁴ or with taxes collected at the federal, state, county and municipal levels. Some states earmark specifically for roads and allocate a portion of their sales tax while others do not. Some states, like New Hampshire, do not even have a sales tax. At the federal level, financing came directly from the General Fund of the United States Department of the Treasury. The *1956 Act* created an earmarked fund and at the same time made it clear that those who used the roads would pay for them. The *Act* directed federal fuel tax to the fund to be used exclusively for highway construction and maintenance. The more you drove, the more fuel you used and the more you paid into the fund. That was the logic.

Today, the U.S. federal excise tax on gasoline is 18.4 cents per gallon and 24.4 cents per gallon for diesel fuel. This federal tax was last raised in 1993 and is not indexed to inflation, which increased by a total of 64.6 percent from 1993 until 2015. More fuel-efficient cars—and cars running on electricity that is not taxed—means that less money is being collected while inflation increases the costs of repairs to roads that eventually have to be made.⁵ The tax should be much higher if it is going to be able to effectively keep up with the costs of maintaining the road network. States have a strong interest in having a good road infrastructure so they can attract businesses,

3. Central London in the U.K., and Stockholm and Göteborg in Sweden have tolls for gaining access by vehicle to these cities.

4. Turnpike authorities and commissions were initiated in the U.S. during the late 1930s by state legislatures as quasi-public entities. The Pennsylvania Turnpike Commission was the first, established in 1937 by the Pennsylvania State legislature.

5. The myth that Americans are driving less is just that: a myth. "We are not showing a decrease," a spokesperson for the American Automobile Association (AAA) was quoted as saying in a July 2017 CBS Moneywatch report. "The most recent data we have is our American Driving Survey, which shows Americans drove 2.45 trillion miles in 2015, a 2.4 percent increase from 2014." There was a dip after the Great Recession, but the trend has been up since 2012.

and often use terms like ‘crossroads’ and ‘logistics hubs’ to sell their states as good locations for businesses. Roads in poor condition are not a good advertisement for a state.

Isn't this just another problem we can solve with IT?

We—everyone involved in planning, financing and building transport infrastructures—are at our own crossroads. The majority of us are living in the present and foreseeable future, and we need to find ways of raising money to keep road transport vehicles moving smoothly and safely. Either raise taxes (on fuel, electricity or in general) or institute tolls on all roads. The main problem with road tolls, either of the turnpike variety or the city congestion charging type, is that they are a regressive tax. They take no account of an individual driver's need to drive, his or her access to suitable alternatives, or, most importantly, ability to pay. Tolls have the effect of clearing the roads of the poor so that the rich can drive. There is no better example of this than THE ECONOMIST's ‘poster child’ city, Singapore.⁶ We have the technology today to tailor tolls to time of day, purpose and urgency of trip and even to a person's ability to pay. If tolls are fair and applied in an intelligent manner, if costs of building and maintenance road infrastructure are transparent, and if the populace is kept aware of the economics of road operation, people will pay their share. They will! Don't leave it up to a referendum or make it a punishable offense for a political party at election time.

Then there is the growing number of people who claim that fewer roads will be necessary in the not-too-distant future, either because our ITS solutions will be so effective or because driverless and automated vehicles will be so much more efficient at using the roads that more throughput can be attained without building new roads. (See example to the right.) The question is whether the installed infrastructure in the example would do a better job at 10% of the cost of building new capacity over ten years. So far, we do not have an answer to this question because we have not had the technology to install and test until relatively recently. Similar claims have been made for the financial benefits of driverless, self-driving and autonomous cars, also with no empirical evidence because we have no such vehicles operating on the roads.

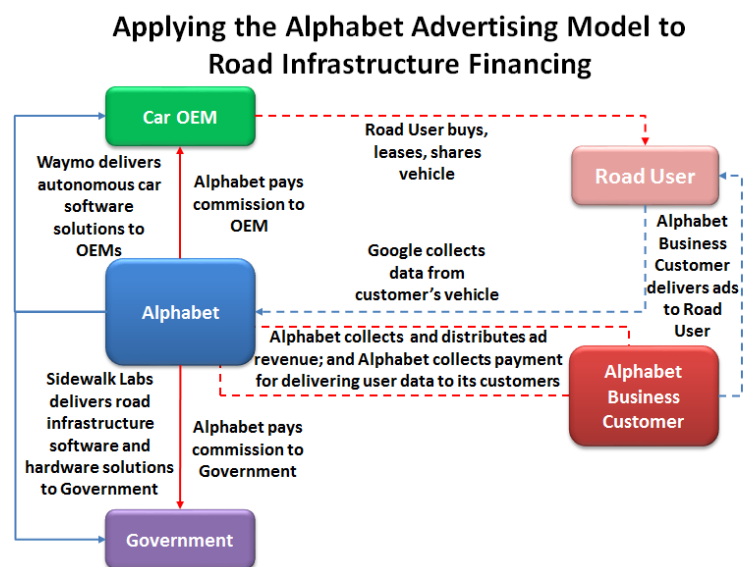
Whether it's five hundred million Euros, Pounds or Dollars versus fifty is less of an issue than who is paying and who is collecting. There has been one constant during the centuries that roads and related infrastructure have been built, and that is that the **customer** for roads has been the same as the **user** of roads. A private person paying a general or an earmarked tax can see the building or

6. Singapore tolls - In 1998, Electronic Road Pricing (ERP) replaced the previously manual Area Licensing Scheme for restricted zones and Road Pricing Scheme for expressways. The daily tolls are about the same as one pays in London or Stockholm. But registration fees for even the most inexpensive car model costing up to €15,000 must pay a registration fee equal to the purchase price (i.e., total price is equal to double the purchase price). The registration rate is 140% for the next €25,000, and then 180% above that.

In a pilot scheme in Birmingham, UK, the Highways Agency has “wired up” a 17 kilometer stretch of motorway with 500 kilometers of cabling, 300 cameras and 50 plug-and-play overroad gantries with the ambition to help traffic move more swiftly at a total installation cost of around £30 million. Over ten years, the total cost with operations might come up to £50 million. The incentive is to save money since adding a single lane to the motorway would cost £510 million (at £30 million per km, according to the Highways Agency).

maintenance of the infrastructure as a cost in a budget if they care to look. The cost of fuel, sales taxes, rent on premises, etc. are costs that need to be paid by taxi companies and they are reflected in the fares of riders. It has not happened yet, but there are signs it may be starting, that the likes of Alphabet and Facebook set their *faangs* (sic) in city, regional and national governments and convince them that infrastructure funding is a perfect fit with their business models in which the customer and the user are not the same.

The diagram to the right shows the Alphabet tentacles Waymo, Sidewalk Labs and Google reaching into all segments of the road transport infrastructure industry with incentives to use Alphabet solutions in the form of commissions paid for the eventual clicks that are made by road users on on-board devices or when off-board infrastructure communicates with the Google cloud. The main money flow occurs between Alphabet and its customers (companies, political parties, etc.) who pay Alphabet for information, and both receive payments from and deliver payments to Alphabet for the ad clicks. All the road user has to do to set this Alphabet wheel in motion is either give their authorization to Google to collect and sell their personal data according to EU GDPR regulations, or agree to use the devices provided by the OEMs or the various app developers in countries where there are more lax privacy regulations. However you feel about this ad-based road financing approach, I believe that it will be presented and debated in the future as a real alternative to taxing directly or indirectly.



Returning to Genoa and Ponte Morandi, ATLANTIA's share price had dropped by close to 30% during the month following the bridge collapse. Members of the government coalition have called for AUTOSTRADE to be re-nationalized, which would take 66% of ATLANTIA's revenues off its books. Do road users believe that their interests will be looked after better with a financially challenged Italian government maintaining their highways than a private company that has a financial interest in ensuring that the roads are kept in good order? Will the Italian government have the appropriate level of interest if it takes back AUTOSTRADE? It's time for governments everywhere to decide whether they are going to be in the road business, if they are going to turn it all over to specialist private companies or if they are going to let the click companies absorb yet another market.

Radical Chic: The Automotive Experience House



CADILLAC HOUSE at 330 Hudson Street on Manhattan is described by Cadillac as a public space for innovators, creators and the curious where people can visit, collaborate and be inspired.

It used to be that Cadillacs spoke for themselves. They didn't need a curator to do it for you. Up until the 1970s, when Cadillac reached the peak of its sales of around 200,000 cars per year, owning a Cadillac meant you had lots of money because they were expensive. And most people thought they were worth every penny paid. You were a doctor, lawyer, business owner or someone like Tony Soprano. If you had to ask how much a Cadillac cost, you couldn't afford it.

WHEN I HEARD about the latest fashion of luxury brand car companies CADILLAC, LINCOLN and LEXUS opening up so-called 'experience houses' in New York and other high rent locations around the U.S., the title of a 1970 Tom Wolfe essay popped into my head: *Radical Chic*. This term was coined by author and journalist Wolfe to describe the "the adoption and promotion of radical political causes by celebrities, socialites, and high society." The article was published in NEW YORK MAGAZINE as an exposé on the practice of celebrity conductor, Leonard Bernstein, and his actress wife, Felicia Cohn Montealegre, hosting parties in their 13-room penthouse on Park Avenue in Manhattan to which radical groups, like the Black Panthers, mingled over cocktails and canapés with social elites. The elites would first become sensitized to the message of the radicals, and then become evangelists for their cause.

We'll tell you how to think about our car

It was on the daily *Automotive News* video that I heard the person in charge of media relations for *Cadillac House* utter the phrase, "We'll tell you how to think about our car", and that is when I made the connection to *Radical Chic*. *Cadillac House* is located on Hudson Street in New York City in the SoHo section of Manhattan. SoHo has been the center of America's contemporary art scene for decades, and with its proximity to Greenwich Village, a part of the city's and country's counterculture. The area shed its bohemian nature before the turn of the millennium and became just another expensive place to live in The City. You might be as likely to find a cousin of Tony Soprano's 2003 *Cadillac Escalade ESV* seen in the TV series 'The Sopranos' (pictured right) as a *Lexus LX 570* or a *Buick Enclave Avenir*. But there are still traces of the neighborhood's former self in cafés and jazz clubs, and this is what is the attraction for CADILLAC to locate it's 'experience center' here. And, by the way, on the top floors are CADILLAC's corporate headquarters.



CADILLAC's version of an 'experience center' was to make it a destination worthy of being an entry in *Trip Advisor*—which it is. It is described on this site as a “public place that functions as an art gallery, retail space, café and exhibition area for the brand's flagship vehicles where innovators, creators and the curious can find inspiration—and one another.” There is no entry fee, and it is open to the public seven days a week. There are a few cars around, but it's the Morgenstern's ice cream, the art and fashion exhibitions and the concerts that are meant to bring in the crowds. CADILLAC curates your image of its cars, and that image becomes cool by association with everything you experience in *Cadillac House*. That's the theory.

Lincoln's curators, hosts and attendants

LINCOLN describes its *Lincoln Experience Center* as a “destination with distinction” where guests are “enticed to relax, explore and experience the luxury offered by THE LINCOLN MOTOR COMPANY, including learning about the full line of vehicles and innovative technologies, while enjoying our serene sanctuary and curated events.” (Ed. Have you noticed that people trying to sell expensive things really like to use the term ‘curate’?⁷) LINCOLN was founded in 1917 by Henry M. Leland, who named his car after the 16th President of the United States. Leland sold his company to Ford in 1922 where it has been a division since then. After Ford divested itself of JAGUAR, LAND ROVER, VOLVO and ASTON MARTIN, LINCOLN is what remains of the *Premier Automotive Group*.

There are currently two *Lincoln Experience Centers*, one in Newport Beach, California (south of LA), and the other in Frisco, Texas (in the Dallas-Fort Worth metroplex). While the visitor enjoys ‘exclusive’ and free espressos, teas and ‘infused waters’⁷, he or she is invited to view exhibits of art and crafts, design their own LINCOLN on a digital configurator or take a thirty-minute test drive. The visitor is helped along by what LINCOLN calls its team of ‘polished professionals’, its ‘curators, hosts and attendants’.

Neither a dealership nor a traditional retail space be

LEXUS will not be outdone. *Intersect by Lexus* has opened in Tokyo and Dubai. The *Intersect by Lexus* web site is very unclear about whether the New York City facility is actually open as of this writing, but I found a page that had opening night event photos from the 14th of August, so it must be close to opening. The NYC location is on West 14th Street in the Meatpacking District. It was, from just

Is the curating working? Are sales of Cadillac, Lexus and Buick going up as a result? Seems like the brands are trying to position themselves like separate companies, outside of the GM, Ford or Toyota parent.



7. “The word “curate,” lofty and once rarely spoken outside exhibition corridors or British parishes, has become a fashionable code word among the aesthetically minded, who seem to paste it onto any activity that involves culling and selecting. In more print-centric times, the term of art was “edit” — as in a boutique edits its dress collections carefully. But now, among designers, disc jockeys, club promoters, bloggers and thrift-store owners, curate is code for “I have a discerning eye and great taste.””

Alex Williams writing in the NEW YORK TIMES Fashion & Style (October 2, 2009)

after the American Civil War until the 1980s, exactly what its name implies, a place full of slaughterhouses. Changes in the way meat was packaged, delivered and sold resulted in the closing of the businesses located there. They were replaced with seedy nightclubs, drug dealing and prostitution until the City decided it was time for refurbishment beginning in the 1990s. In 2004, NEW YORK MAGAZINE called the *Meatpacking District* “New York’s most fashionable neighborhood.” And now it’s home to *Intersect by Lexus*, among other fashionable tenants. Its entrance can be seen below.



LEXUS says that the name *Intersect* derives from its desire to “create a place where people and ideas come together.” Its concept is built on people delivering talks, conducting workshops and giving performances along with having permanent and rotating installations and exhibits. The objective is to “engage, inspire and stimulate young creators whose ideas will shape our tomorrow,” and to have a place where guests can be “entertained, inspired and educated” without getting behind the steering wheel of one of its cars. One of its main draws will be food, featuring a restaurant with a rotating lineup of “internationally celebrated Chefs-in-Residence”, and a café where pastries to die for will be served.

What’s wrong with a good, old-fashioned dealer?

In a word: control. As each of the examples above indicate, the brands want to ‘curate’ the customer’s thoughts about what buying and driving their particular vehicle will—or should—mean to the customer. They have direct control over the hiring and training of the staff in their experience centers, and they have total control over the message that is being delivered. That message is not going to be altered by a national sales company who believe they know better than headquarters what customers want, or muddled by a dealer sales person who may have been working across the street at a competitor’s the day before.

The second word is cost. Car companies want to get closer to their customers so they can sell directly to them, either to increase their



The Meatpacking District extends between 8th Avenue on the East and Hudson River on the West, and from 17th Street on the North to Horatio Street on the South. One of its principal ‘features’ is the High Line, a 1.45 mile (2.33 km) long linear park that runs on a former New York Central Railroad elevated spur. Pictured above is the rail line running through the Bell Laboratories Building in 1936.

own profitability or to reduce the retail price of the car. A study prepared by the Economic Analysis Group Antitrust Division of the U.S. Department of Justice titled *Economic Effects of State Bans on Direct Manufacturer Sales to Car Buyers (May 2009)*⁸ found that a direct sales model reduced the cost of a vehicle by 8.6%. The report's abstract stated: "(U.S.) State franchise laws prohibit auto manufacturers from making sales directly to customers. This report advocates eliminating state bans on direct manufacturer sales in order to provide automakers with an opportunity to reduce inventories and distribution costs by better matching production with consumer preferences." Since this report was published, four states in the U.S. officially allow direct sales, while six continue to ban them. In most states the issue is still being debated. Direct sales are allowed in Canada and in Europe.

8. <https://www.justice.gov/sites/default/files/atr/legacy/2009/05/28/246374.pdf>

We don't want you to walk alone

Buying a car can be like joining a club. I say "can be" because some individuals have an aversion to joining clubs. They agree with Groucho Marx who said famously: "I refuse to join any club that would have me as a member." Others are happy creating their own clubs. Cousin Franz has a repair workshop; Uncle Günther sells tires; friend Fritz sells used cars. Even those who are 'joiners' have different ideas about what types of clubs they would join. There are football fan clubs open to everyone who is willing to wear the club scarfs and sing the club song. "Y'll neeee—vaaaaah wok ah-loan!" There are others who accept a personality and background check to be vetted for membership and there are some who will pay a substantial entry fee to ensure exclusivity.

An automotive experience center is by any other name still a club—at least that is what the companies that have built them want them to be. They are places where you can hang out and feel part of a crowd, a crowd that, over time, you will come to feel are your friends. Just like you don't easily give up your sports team, quit a social club you have sweated to gain entry into or paid a huge sum of money to join, you wouldn't want to give up your ticket to the automotive experience center. Or would you? How long can these centers operate if they cannot show that those who are hanging out there and soaking up the atmosphere and free food and drinks are eventually buying the CADILLACS, LINCOLNS or LEXUSES? Maybe the club owners, the car OEMs, will have to start handing out cards of different colors, like the airline loyalty programs, with the exclusive rooms upstairs for the ultra-premium members, those who buy more than one of their models. The ground floors will be for those who are just looking or mooching.

Agero, Inc.: An Automotive Call Center Case Study



This is the control console on a new Subaru with SUBARU GEN2 STARLINK supported by Agero's call service center.

THE FIRST TIME I heard about **Agero** (which, at the time and up to 2011, was **Cross Country Automotive Group**) was in 1986 when I was working as a consultant to the American Automobile Association. AAA was beginning to view the Medford, MA-based company as a real competitor. CCAG had started its automobile manufacturer warranty program in 1981, a business that AAA had initially shunned, and its number of customers was growing quickly. The first time I met Agero was in 1997 when Volvo Cars was looking for an organization in the United States that could deliver call center services to its new Volvo On Call system. CCAG had become the warranty roadside assistance supplier to Volvo Cars North America and it was a natural choice for Volvo On Call. During the four years that the first generation Volvo On Call system was offered to customers in the U.S., Cross Country was its service provider, fulfilling the role of telematics service provider (TSP) and call center.

It took almost ten years for Volvo to return to the U.S. market with Volvo On Call, and by this time the system was in its fourth iteration. WirelessCar had been the telematics service provider (TSP) since 1999, and services were operational in most of the European Union countries as well in Russia and Brazil. Beginning in 2012, China, the U.S. and Canada were next on the list. CCAG, or Agero as it had now become, was still the roadside assistance provider for Volvo in the U.S., and once again it was the logical choice to deliver call center services for Volvo On Call. Services for Volvo went live in the U.S. with Agero in 2014.

Searching for the best build or buy strategy

I have found that most call center service providers who begin to work with vehicle OEMs in support of their telematics systems go through a period of questioning whether they should try to extend up the delivery chain and become a telematics service provider, either through an acquisition or by building a platform in-house. CCAG was no exception. In 2008 it decided to acquire ATX Group, a company based in the Dallas/Fort Worth area that had call center services and operated as a TSP to a few OEMs. CCAG and ATX continued to operate under their own names until 2011 when Agero became the new



combined brand. Agero sold the ATX unit in 2013 and its foray into the TSP world came to a close—at least for the time being. It has since concentrated on its strength as a call center provider while making new acquisitions that reinforce that position.

SwoopMe, Inc., or *Swoop* as it is called, is one such acquisition that occurred in January 2018. Swoop was founded in 2014 in San Francisco. It developed a platform for managing the dispatching and delivery of services, particularly towing for roadside assistance, and includes all of the administrative functions you would expect to find, such as invoicing and payment processing, reporting and analytics. It is a supplement to Agero's roadside provider assets, including *RoadsideConnect*, which is why Agero purchased *Swoop*. The *RoadsideConnect* customer portal provides drivers with access to real-time updated ETAs and current event status updates, such as the service provider's name, photo and contact info.

In 2015, Agero had built its own mobile app-based program for delivering roadside assistance. It is called *Blink*. This was in response to the upstarts like *urgent.ly* and *honk* that popped up around 2014 and had the common slogan aimed at both tow truck operators and drivers: "No more motor clubs." Agero already had the towing network that these new companies were attempting to build from scratch, and *Blink* provided an opportunity for Agero to sell directly to drivers, rather than only providing white label services to vehicle OEMs, insurers, credit card companies and other organizations. So where does *Swoop* come in? Building and maintaining its own platform for *Blink* and similar services is not what has been a 'core competence' of Agero, while it is the only mission of *Swoop*.

Subaru chooses Agero for Gen2 STARLINK

Agero and WirelessCar made a great team for Volvo On Call, and this fact apparently did not escape the notice of Subaru of North America when it was time to move beyond its initial telematics offering called STARLINK. With its first generation STARLINK system, SUBARU drivers requiring roadside assistance were re-directed to the Agero roadside assistance team, a process aptly nicknamed 'ping-pong'.

Leveraging its core foundation rooted in telematics, Agero will broaden its existing emergency roadside assistance and travel-related services by providing SUBARU customers with enhanced driver assistance, including airbag and accident scene notifications, stolen vehicle tracking, and concierge services related to various driver inquiries and points of interest. With Gen2, when SUBARU motorists require assistance, they can access Agero's response team directly



Here are the overhead control buttons for the SUBARU GEN2 STARLINK connected system.

through the SUBARU STARLINK Connected Vehicle system. There is no re-direction. Services are available around-the-clock and go beyond vehicle-centric services to include assistance in case of an accident, tracking a lost or stolen vehicle, as well as offering many other services. Gen2 STARLINK enhanced connected vehicle services were launched in early 2018. "This capability meets a critical need as more and more automakers are looking to their roadside provider to be the most efficient single source for their connected vehicle service programs," said Cathy Orrico, Agero's senior vice president of client services and sales.⁹

Getting ready for the future

There are major changes afoot in the car business, and these will affect all related businesses. Automotive call center services business will be no exception. Becoming proficient in delivering connected services and broadening your competencies beyond roadside assistance is definitely one step to take, and Agero has done that. In order to better understand what the future might hold, Agero co-founded in September 2015 the **Advanced Vehicle Technology Consortium** (AVT) along with the Massachusetts Institute of Technology (MIT) AgeLab and Touchstone Evaluations. Other members include Autoliv, Aptiv, Liberty Mutual, Progressive Insurance, JLR, Toyota, Consumer Reports and others. The goal of AVT is "to achieve a data-driven understanding of how drivers engage with and leverage vehicle automation, driver assistance technologies, and the range of in-vehicle and portable technologies for connectivity and infotainment appearing in modern vehicles."

Agero has taken part in an AVT technology study in which driver behavior has been studied under normal conditions with 78 volunteer drivers and 25 vehicles, mostly Teslas but also two RANGE ROVER EVOQUES and one VOLVO S90. Agero contributed to the study with its *MileUp* accident detection and driver behavior platform combined with a newly developed driver scoring system called *Driver360*. *MileUp* utilized the AVT study with its mobile devices and a cloud-based application for crowdsourcing natural driving data, validating crash detection algorithms initially developed through extensive crash facility testing with *MileUp*. This was then fed into *Driver360*, a software development kit that can be integrated into existing applications for insurance providers and auto manufacturers.

Cross Country has been in business for 48 years. As an early participant in automotive connected services it has helped to make it what it is today: mainstream. **Agero** and the entire industry will now face their biggest changes and challenges in the years ahead.

9. Volvo Cars and JLR successfully applied this approach from day one of the introduction of their connected services. It seems obvious, but the most OEMs appear to be satisfied with their customers playing ping pong.

JRC Science for Policy Report: CCAM in Europe



The Joint Research Centre (JRC) is the European Commission's science and knowledge service which employs scientists to carry out research in order to provide independent scientific advice and support to EU policy. The JRC is a Directorate-General of the European Commission under the responsibility of Tibor Navracsics, Commissioner for Education, Culture, Youth & Sport. The current Director General of the JRC is Vladimír Šucha. Its Board of Governors assists and advises the Director-General on matters relating to the role and the scientific, technical and financial management of the JRC.

THE EUROPEAN COMMISSION decided it was time to perform an in-depth investigation of the potential impacts of changes that have already occurred or are being proposed to road transport vehicles and the road infrastructure. Vehicles have been using mobile communications to deliver data and receive services for over two decades, but vehicle-to-vehicle communication and cooperative driving will greatly increase the number and types of applications that can be implemented. Increasing automation of the driving task has been promoted as a way to reduce the numbers of accidents and deaths on the roads, but there will be other impacts as well that need to be addressed. The JRC was tasked with “analyzing the value at stake for both the economy and society as a result of a transition towards CCAM in Europe. Twelve staff members of the JRC collaborated in preparing the report: ***An analysis of possible socio-economic effects of a Cooperative, Connected and Automated Mobility (CCAM) in Europe: Effects of automated driving on the economy, employment and skills***

By identifying the economic sectors that are most likely to be affected by CCAM, and considering the various factors that are driving changes in each of these sectors, the research team intended to estimate ranges of potential impacts for the sectors. They employed a scenario approach with three levels of uptake of the new automation technologies in 2025 and 2050: low, medium and high. The matrix below summarizes the results arrived at by the research team.

SCENARIOS	LEVELS OF DEVELOPMENT PER AREA		
	TECHNOLOGY	POLICY	USERS
Baseline	Eurostat ⁽⁴⁾ and EU Reference Scenario 2016 ⁽⁵⁾ , without accounting for CAV technologies		
Scenario 1. Low uptake	Slow	Little	Few
Scenario 2. Medium uptake	Moderate	Moderate	Moderate
Scenario 3. High uptake	Fast	Strong	Many

By using these scenarios along with a set of key performance indicators, the researchers studied the impacts of cooperative and connected vehicles (CAVs) on traffic, accidents and the environment, including their implications on the economy.

What did the study determine?

The main body of the report is 150 pages. In addition, there are twenty pages of references, mostly research and conference papers, and another twenty-five pages of definitions. The report's main conclusion is this: "There are challenges and opportunities linked to the transition towards a future of CCAM mobility which will need to be faced in order to unlock the unprecedented benefits that CAV technologies could bring to our society and economy." Specific conclusions are:

- CCAM provides profitable opportunities for some sectors, like automotive, electronics and software, as a result of increased vehicle sales, data exchange and more transport efficiency.
- Other sectors, like insurance and vehicle maintenance might suffer decreases in revenue as a result of decreased accidents.
- Open questions exist about users' acceptance, ethics, social inclusion and labor.
- Some jobs will disappear, and retraining will be necessary.
- ICT competences will be increasingly in demand.

For those who might say, "Well, yes, that's pretty much what everyone has been saying," it would be worth having a look at the body of the report and the material that has been collected to back up these conclusions. There is also quite a lot of information about activities taking place within the various EC Directorates related to CAVs and the projects that are running or have concluded with CAVs as their focus.

Ambitious goals; much left to do

It is extremely difficult to predict what may happen within the next few years, let alone within the next thirty. The JRC researchers are aware of this. Fully connected and cooperative driving and self-driving cars are not available today, so the authors of the report avoid making definitive statements about their potential financial or socio-economic impact. They say their report is a "preliminary exploratory research activity that will feed into a larger project whose aim is to go deeper into the analysis of the possible impacts of future mobility scenarios." A future study will, they say, look at the problem in a much more detailed manner by looking at each Member State and its particular socio-economic situation and workforce skills level within the transport-related sector."

It would be best to look at this study more as a literature survey or state-of-the art review than as an attempt to provide hard facts on the potential impacts of connected, cooperative or autonomous vehicles. There is a wealth of information for the ambitious reader.

Dispatch Central

Tesla will not, after all, delist itself from Nasdaq



Mea culpa; mea culpa; mea maxima culpa.

*In the March 2018 issue of **The Dispatcher** I wrote about where we might better invest our money if we really want to save lives. That is in reducing the number of drug overdose-related deaths that increased again in the U.S. to 72,000 in 2017, up by 7% from 2016. Traffic-related deaths in the U.S. in 2017 were 40,100, down 1% from 2016.*

A recent study conducted in Sweden has determined that up to 10% of traffic-related deaths are actually suicides.

10. Jacques Wallner is the Editor of DAGENS NYHETER *Motor* section which appears weekly. Lasse Swärd, his principal reporter, and Jacques provide news on everything to do with motorized road transport. They have no equal among Sweden's newspapers, and I have found their reporting to be among the best there is anywhere.

ON FRIDAY, the 24th of August, the Tesla board announced that contrary to everything that had been said or hinted at by its Chairman and CEO, Elon Musk, Tesla would remain a public company. Later in the day, Musk confirmed this. "I met with Tesla's board of directors yesterday and let them know that I believe the better path is for Tesla to remain public," Musk said in a statement posted on Tesla's website Friday. "The board indicated that they agree."

Musk said his change of heart came after talking to Tesla investors and realizing that taking the company private would be harder than he originally thought.

"Although the majority of shareholders I spoke to said they would remain with Tesla if we went private, the sentiment, in a nutshell, was 'please don't do this,'" he said. "I knew the process of going private would be challenging, but it's clear that it would be even more time-consuming and distracting than initially anticipated. This is a problem because we absolutely must stay focused on ramping Model 3 and becoming profitable."

The fact that the stock price dropped by 20% following his surprise announcement on the 7th of August and up to the time the board put the kibosh on it certainly had something to do with the decision. The shock announcement sent Tesla's (TSLA) stock on a wild ride, reportedly drawing scrutiny from regulators and lawsuits from investors (mostly short sellers). Talk about distractions.

✂

Do we need continuous education for drivers

THE EDITOR of Sweden's major daily newspaper's *Motor* section prepared a table of issues for all of the candidates to answer as a run-up to the national and local election on the 9th of September.¹⁰ One of his questions was whether the holders of a Swedish passenger car driver's license should be required to have continuous education on all facets of driving. For drivers of heavy trucks and buses regular training sessions are compulsory, so should it also be compulsory for private drivers, he asked. Not a single one of the eight party candidates running in the national election answered positively. Politicians are sensitive to what their voters want, and if you ask any driver whether they would like to go through a regular course to improve their driving skills, update themselves on the latest technology, have a review of all the road signs and their meaning, they would most likely say "No!". I might have said the same thing before I had to go through the full driver's test when I

moved to Sweden. It took me four years to get my license. (I decided that I had to learn Swedish first after I got less than half of the questions on the theory test correct when I took it in English and decided that whoever made the English translations had it in for non-Swedish-speakers.) Studying for the exam was time very well spent, and I am certain that there would be fewer accidents, better road safety and fewer parking tickets handed out if everyone had to take a refresher course at least every five years. What do you think?



If I only had a chauffeur

ARE YOU are too old for *Mom's Taxi*, but have not yet hit the jackpot with a startup bought by Alphabet, Facebook or Alibaba? Not to worry. Join a political party and get elected to Parliament. Then, you can charge all of your travel by taxi to the government and claim that you thought your reimbursements were automatically deducted from your salary. That's what a politician who lives just down the road from us has done. Unfortunately for him, a TV undercover reporter was tipped off to his shenanigans and wrote a feature story about him. He was forced to remove his name from the list of candidates just five days before the election. There's always the Lottery, or he will just have to wait for those humanless-driven cars. They won't come cheap.

Time to close your social media accounts?

AS MY readers know, I do not have, nor have I ever had, social media accounts. I know I have missed out on so, so much, but as soon as I saw them, I said they were not for me. I didn't think about why in the same meticulous way as Jaron Lanier has, nor could I possibly explain my reasons as perfectly as he has in his book, *Ten Arguments for Closing your Social Media Accounts Right Now*. Jaron Lanier was there and helped to design and construct the foundation upon which Zuckerberg and Dorsey built their businesses that use algorithms to manipulate our minds. Facebook's market capitalization at \$500 billion is five times the total annual budget of Sweden. What does Facebook do to earn this valuation? It doesn't operate schools or hospitals, build roads and housing, send troops to protect people from the bad guys. Its users pay nothing; its customers pay them around \$40 billion per year to obtain the data Facebook collects on its users. I recommend reading the book and deciding for yourself whether it's time for you to close your social media accounts.



Not yet ready to ring the stock market bell for Volvo Cars

IF YOU are among those waiting with baited breath for Volvo Cars to sell some of its shares in an initial public offering, you will have to hold your breath for awhile longer. The threat of tolls on cars entering the U.S. has put plans on hold. Uncertainty is an IPO's worst enemy. This is not the whole story, however. Volvo's plan to issue new shares, rather than selling existing shares, has also been a cause for a pause. There is no date yet for the emission.



Can I park here without risking a €100 fine? It's complicated.

JARON LANIER

TEN ARGUMENTS
FOR DELETING
YOUR SOCIAL
MEDIA ACCOUNTS
RIGHT NOW



Next Issue of The Dispatcher

5G: It's Show Time

ON OCTOBER 1ST, VERIZON, the largest mobile network operator in the U.S., will begin offering installation of its 5G home broadband in Houston, Indianapolis, Los Angeles, and Sacramento. Customers will be able to begin

receiving service once the installation is complete, with pricing set at \$50 for VERIZON WIRELESS customers and \$70 for non-VZW customers. Those prices include all taxes and fees and do not require an annual contract.

Consumers who sign up for 5G home broadband service can expect network speeds of around 300Mbps, with peak

speeds of nearly 1Gbps depending on location. One other notable detail of Verizon's 5G home broadband service is that there are no data caps.

Continuous V2X technology evolution required

And careful spectrum planning to support this evolution

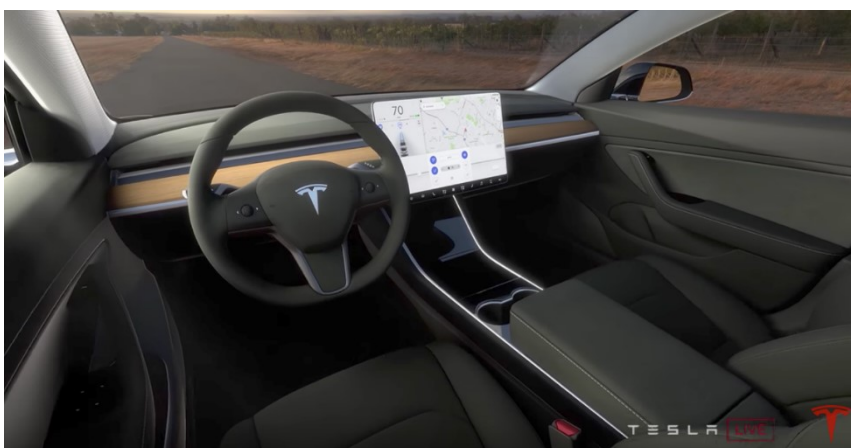
Evolution to 5G, while maintaining backward compatibility



Tesla: "You don't understand me."

IF MARKET VALUATION of a car company was based on the number of cars sold, Ford would be valued at \$2.4 trillion or Tesla would be valued at \$400 million. If investor interest in a car company was guided by a belief that the

management of the company was stable and dependable and its board of directors responsible, Håkan Samuelsson and his able team at Volvo Cars would already have followed through with its IPO and had piles of money for its investments, and Tesla would be borrowing from banks just to stay in business. As we know, these metrics are not applied when it comes to



Tesla. This photo of the interior of a new Tesla Model 3 is all that is needed to explain why Tesla has the valuation and share price it has, and why, in spite of the antics of its CEO and Chairman (same guy), investors continue to be willing to give him and the company money.

Musings of a Dispatcher: Car Collecting Fervor



Here is Sean Connery with his Aston Martin Silver Birch DB5 that he drove in *Goldfinger*. (Source: Copyright Everett Collection)

11. The seller of the Ferrari was Greg Whitten, who leveraged a B.A. in math in 1973 from the U. of Virginia and a Ph.D. in applied math from Harvard in 1978 into a twenty-year career at Microsoft and fifteen at Numerix to become wealthy enough to own a stable of valuable Ferraris. The new owner's identity was not released. He or she was one of three collectors bidding by phone.

CAR COLLECTING can be an expensive hobby. ASTON MARTIN announced in August that it would recreate the James Bond car seen in the 1964 *Goldfinger* movie complete with workable gadgets, like the rotating license plate. Each *Silver Birch DB5* will cost £2.75 (\$3.5) million, with the first of a total of twenty-five cars to be built being delivered to customers in 2020. Also in August, a 1962 Ferrari 250 GTO sold at a Sotheby's auction in Monterey, CA for \$48.4 million.¹¹ It was one of only 36 of this Ferrari model ever built.

Still, that's a lot of money to pay for a car, don't you think? Even if it is number 3 of 36, even if it was tested by the F1 world champion at the time, Phil Hill, even if it won the Targa Florio two years in a row, and even if it won the Italian



National GT Championship in 1962, you could buy eight brand new Bugatti Divo supercars for the same amount of money, or (and this is my favorite comparison) pay the salaries and social costs for 40 teachers for ten years. So why spend it on a car?

The psychology of collecting

Why do people collect things? There are different types of collectors, from compulsive hoarders to normal folks who happen to like antique fly reels or Millefiori paperweights. I did a literature search on the topic of collecting and found three different perspectives. Psychologists, including Freud, focus on the dark side of collecting, the need for control over an object of desire, the desire to regain or protect important memories like those of childhood, the imperative to reduce anxiety by creating another world outside the real one that causes stress. The second perspective is simply financial. It is a way to beat inflation and offers better returns than financial instruments. For many collectors, including your editor with his fly reels, the value is not monetary but emotional. The fun is finding an object that fits into the collection and then being able to obtain it. The objects are something that interests us, whether it's watches, model trains or cars.

My father collected autographs, but he did it in an interesting way. He drew portraits of dozens of film and theatre personalities when he was in art school in Brooklyn in the

early 1930s. Then he stood outside the theatre doors to ask them to sign their portraits. Most of them went further and wrote something kind. He never thought of selling these portraits, and, after framing them, neither have I. So now it's my collection.

My dad's brother left school at fourteen to become a car mechanic. After the War, he had a dry cleaning business and then bought an old inn, which he ran until he retired. His hobby was collecting Cadillac convertibles. He didn't have the money to buy classics in top condition, so he bought what he could afford and fixed them up in his spare time. He had moved to his wife's town, a small city about 60 miles to the northwest. It seemed that he had a new Cadillac every time he visited at Christmas or Easter. I'm certain that Uncle Frank would have spent all of his time buying, fixing up and selling Cadillacs if he could. He certainly didn't get rich with his hobby, but he always had a big smile on his face when he parked his Caddy outside our house.

It's the smiles and looks of satisfaction that you see at classic car gatherings, like the one we have in Vadstena every Wednesday evening during the summer months. My uncle would fit right in. At least half of the cars are 'Yanks', mostly from the 50s and 60s, and Cadillacs are one of the most popular. These are folks who have one or two cars and who drive their cars in caravans to places where they meet and admire one another's prize possession and share them with us. There must be hundreds of thousands of such enthusiasts. The *Classic Car Club of America* alone has over three thousand members, and it's one of sixty classic car clubs just in North America!

Car collector billionaires

And then we have the collectors with real money. Assembling a herd of expensive motorized stallions in one's stable has become a pastime of the rich and famous. Nick Mason, drummer for *Pink Floyd* is number ten on the *Top Ten Car Collectors* list. Ralph Lauren is number nine. He's followed by another famous musician, a Russian oligarch, a venture capitalist who invested in Skype and then the richest man in India. Hopping over fourth place to number three, we have Jay Leno, who has amassed a collection that is the largest with some of the rarest models. Leno's cars have a total value of \$350 million. All that from being a wise-cracking late night TV show host. Numbers two and one, unsurprisingly, are a sheik and a sultan. In fourth place is the only person who is actually in the car business, Ken Lingenfelter. Then there are the high-paid athletes who project their physiques through multiple muscle cars that they actually drive.

One way to become a car collector for profit is to keep the cars you bought in the first place. If I had kept the second car I bought, a 1963 Volkswagen Beetle in mint condition (the first was a '61 Beetle



The portrait drawn in 1931 is signed: To Lawrence Sena, with all good wishes, Edward G. Robinson

One of the largest and complete collections of VW Beetles is here in Sweden, in a place called Pålshöj. The collector, Bengt Holmgren, a 47-year-old retired bus driver, started with 45 cars he bought fifty years ago. He had assembled at least one model from the first year they were built, 1948, until the last one rode off the assembly line in Puebla, Mexico on the 30 of July 2003. Bengt is now auctioning off the lot.

in poor condition) for which I paid \$600 in 1969, it would be worth \$28,300 today, according to Hagerty Valuation. The \$600 I paid for it would be worth around \$8,000 in 2018 money. The '71 Ford Cortina that I bought new would be worth three times the \$2,000 for which I bought it (with reason, much less than the value of the cash), and my '77 Jeep Cherokee double the \$7,000 I plunked down. The problem is that we don't know we are collectors when we've decided to sell something that has outlived its usefulness to us, either because it doesn't do the job we need to have done as well as it did when we bought it, or it doesn't fulfil the new requirements we have for it. Also, most of us don't have the space to keep our old work horses unless we live on a big farm in the countryside.¹²

To every thing there is a season

There are still highly skilled craftspeople making non-electronic watches that will be collectible for many years to come. BUGATIS, LAMBORGHINIS and MASERATIS are collectors' items when they are new because of their quality and performance. But I wonder whether there is a future for classic car collecting. I don't mean for the expensive Italian sports cars or timeless cars like Porsches and Aston Martins, but the more affordable classic cars that bring real smiles to their owners' faces when they drive them on highways, byways and through cities. Future collectors, those born in the 1980s or later, are going to have a difficult time, I believe, getting excited about a particular car when it looks like just about any other car. Which car would you want to own, the 1960 BUICK LESABRE to the right below or its forty year newer version? Even if you think the designs of the ocean liner-sized cars of the late 50s through the beginning of the 70s are outrageous, they are inspiring. They are the stuff of dreams. After that, the 'Yanks' become loaves of bread.

Will we even be able to drive our classic cars when all those laws that are expected to be passed to ban human driving come into effect? If safety is truly the issue, it should, in theory, be the oldest cars that are prohibited from sharing the pavement with newer, supposedly safer vehicles. Maybe all classic cars will be relegated to museums. The generation of mobility seekers who see no reason to own or drive might enjoy visiting such attractions to see the quaint artefacts of their ancestors. We visit steam train museums and horse drawn carriage museums. Maybe car companies will do what ASTON MARTIN is doing and start making all their new cars look like the classic cars that people want to collect. A driverless 1960-style BUICK LESABRE might be just the ticket for a 'millennial'. On second thought, maybe not. They'll probably collect fidget spinners.

We're not there yet. There is still time to become a car collector. It would be a '55 or '58 Chevy for me if I decided to join the club.



12. A New York man retired. He wanted to use his retirement money wisely, and decided to buy a home and a few acres in Portugal. The modest farm house had been vacant for 15 years. The owner and his wife both had died and there were no heirs. The house was sold to pay taxes. There had been several lookers but the large barn had steel doors that were welded shut. Nobody wanted to go to the extra expense to see what was in the barn, and it wasn't complimentary to the property anyway. So nobody had made an offer on the place.

Read more at <http://www.curi-ousread.com/2011/01/guy-buys-land-inherits-secret-barn-full.html#ub-wfQEYBDOKzdMTQ.99>



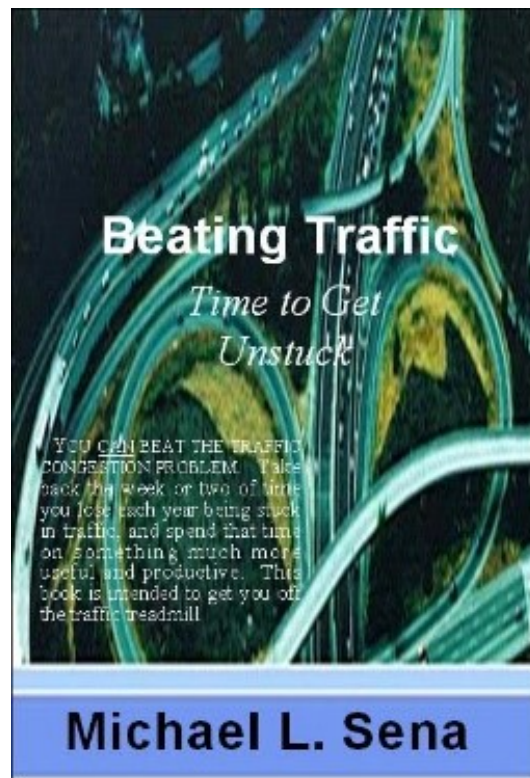
Above is a 1960 BUICK LESABRE that I photographed at a BUICK collector's rally on the grounds of one of Sweden's many castles. It's a beauty. Below is also a BUICK LESABRE, one of the models built between 2000 and 2005. A loaf of white bread.



About Michael L. Sena

Michael Sena, through his writing, speaking and client work, attempts to bring clarity to an often opaque world of vehicle telematics. He has not just studied the technologies and analyzed the services, he has developed and implemented them. He has shaped visions and followed through to delivering them. What drives him—why he does what he does—is his desire to move the industry forward: to see accident statistics fall because of safety improvements related to advanced driver assistance systems; to see congestion on all roads reduced because of better traffic information and improved route selection; to see global emissions from transport eliminated because of designing the most fuel efficient vehicles.

This newsletter touches on the principal themes of the industry, highlighting what, how and why developments are occurring so that you can develop your own strategies for the future.



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