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| Dow Jones Factiva | Dow Jones |

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| HD | Inside View: How ChatGPT Will Become Useful |
| BY | By Andy Kessler |
| WC | 846 words |
| PD | 27 February 2023 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A15 |
| LA | English |
| CY | Copyright 2023 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | In the rudimentary days of videogames, I met the team that created the first multiplayer Formula 1 Grand Prix racing game. They had to alter the original code because they discovered almost every player at the start of the first race would turn his car around on the track and **crash** into the incoming traffic. I started to laugh, because that's what I did too. Gives new meaning to the Facebook motto: Move fast and break things.  That's exactly what's going on with the newfangled generative AI chatbots. Everyone's trying to break them and show their limitations and downsides. It's human nature. A New York Times reporter was "thoroughly creeped out" after using Microsoft Bing's chatbot. Sounds as if someone needs reassignment to the society pages. In 2016 Microsoft had to shut down its experimental chatbot, Tay, after users turned it into what some called a "neo-Nazi sexbot." |
| TD | Coders can't test for everything, so they need thousands or millions banging away to find their flaws. Free testers. In the coming months, you're going to hear a lot more about RLHF, reinforced learning from human feedback. Machine-learning systems scan large quantities of data on the internet but then learn by chatting with actual humans in a feedback loop to hone their skills.  Unfortunately, some people are ruder than others. This is what destroyed Tay. So ChatGPT currently limits its human feedback training to paid contractors. That will eventually change. Windows wasn't ready until version 3.0; generative AI will get there too.  For now Microsoft's solution is to limit users to six questions a session for the Bing chatbot, effectively giving each session an expiration date. This sounds eerily similar to the Tyrell Corporation's Nexus-6 replicants from the 1982 movie "Blade Runner." If I remember, that didn't end well.  Every time something new comes out, lots of people try to break it or foolishly try to find the edge, like jumping into the back seat of a **self-driving** **Tesla**. This is especially scary given the recent recall of 362,800 Teslas with faulty "Full **Self-Driving**" software. And, reminiscent of the "Can I confess something?" scene in "Annie Hall," I've always wondered: If I drove my car straight into a brick wall, would the collision avoidance actually work? I'm too chicken to try.  Every cyberattack is a lesson in breakage, like the 2015 hack of the Office of Personnel Management or the May 2021 ransomware shutdown of the Colonial Pipeline. Heck, Elon Musk's X.com and Peter Thiel's PayPal payment processors were initially so riddled with fraud that the media insisted e-commerce would never happen, naysaying what today is a $10 trillion business. Looking back, they were lucky they were attacked at an early stage when the stakes were much lower.  But be warned that with generative AI, even if it's too early, if developers can build something, they will. So best to shake out all the bugs and limitations and creep reporters out now before things roll out to the masses.  Despite early glitches, useful things are coming. Search boxes aren't very conversational. Using them is like grunting words to zero in on something you suspect exists. Now a more natural human interface can replace back-and-forth conversations with old-fashioned travel agents. Or stockbrokers. Or doctors.  Once conversations are human enough, the Eleanor Rigby floodgates -- Ah, look at all the lonely people -- will open. Eldercare may be the first big generative AI hit. Instead of grandma talking to the TV, a chatbot can stand in. Remember the 2013 movie "Her," with Joaquin Phoenix's character falling in love with an online bot voiced by Scarlett Johansson? This will become reality soon, no question. Someone will build it and against all warnings, millions will use it. In fact, the aptly named Replika AI Companion has launched, although its programmers quickly turned off the "erotic roleplay" feature. Hmmm.  It may take longer for "M3GAN," this year's movie thriller (I watched it as a comedy) to become reality. It's about a robot companion for a child gone rogue. But products like this will happen. Mattel's 2015 Hello Barbie, which would listen and talk to kids, eventually **failed**, but someone will get it right before long.  The trick is not to focus on the downside, like so many do with DNA crime-solving or facial-recognition systems or even the idea that Russian ads on social networks can tip elections. Let's face it, every new technology is the Full Employment Act for ethicists -- and scolds. Instead, with generative AI, focus on the upside of conversational search, companions for the lonely, and eventually an education system custom tailored to each student. Each time, crowds will move fast and try to break things and expose the flaws. Embrace that as part of the path to the future.  ---  Write to kessler@wsj.com |
| NS | gaiml : Artificial Intelligence/Machine Learning | gmora : Motor Racing | nedc : Commentaries/Opinions | gcat : Political/General News | gcsci : Computer Science | gmoto : Motor Sports | gsci : Sciences/Humanities | gspo : Sports | ncat : Content Types | nfact : Factiva Filters | nfce : C&E Exclusion Filter | nfcpex : C&E Executive News Filter | nrgn : Routine General News |
| RE | usa : United States | namz : North America |
| IPC | NND | EDP |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020230227ej2r0000r |

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| HD | **Automation** Feature Spurs **Tesla** Recall |
| BY | By Ryan Felton |
| WC | 840 words |
| PD | 17 February 2023 |
| SN | The Wall Street Journal |
| SC | J |
| PG | B1 |
| LA | English |
| CY | Copyright 2023 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | **Tesla** Inc. is recalling 362,800 vehicles equipped with its high-profile advanced-**driver assistance** feature, a technology marketed as Full **Self-Driving** Beta, in response to regulatory pressure, the U.S. top car-safety agency said.  In a notice published Thursday, the National Highway Traffic Safety Administration said that some Teslas in rare circumstances could violate local traffic laws, potentially increasing the risk of a collision if a driver **fails** to intervene. |
| TD | NHTSA, the auto industry's main regulator, said it told **Tesla** last month about potential concerns related to characteristics of the system specific to certain roadway environments, such as traveling through intersections during a stale yellow light and adjusting the vehicle's speed while traveling through certain variable speed zones.  As of this week, **Tesla** had identified 18 warranty claims potentially related to the conditions above, and it isn't aware of any injuries or deaths related to those situations, the notice said.  **Tesla** said it would deploy an over-the-air software update in the coming weeks to improve how the technology negotiates certain driving maneuvers during the relevant conditions, according to the filing.  **Tesla** didn't respond to a request for comment.  **Tesla** Chief Executive Elon Musk tweeted: "The word 'recall' for an over-the-air software update is anachronistic and just flat wrong!"  Recalls typically require car owners to take their vehicles to a mechanic to have a fix made. **Tesla** can update vehicle software remotely.  According to the NHTSA filing, **Tesla** didn't initially concur with the agency's findings but decided on Feb. 7 to administer a voluntary recall out of an abundance of caution.  The recall campaign represents one of the most forceful regulatory actions yet on **Tesla**'s efforts to automate its vehicles, a strategy that has been a revenue opportunity for the auto maker and is key to its vision of eventually replacing drivers with robots.  **Tesla**'s shares ended down 5.7% on Thursday.  Regulators have long been looking into **Tesla**'s **driver-assistance** systems amid high-profile **crashes** and questions about whether the company was promising more than it could deliver and whether users were in jeopardy from misuse. The Justice Department and the Securities and Exchange Commission have also been investigating whether **Tesla** misled consumers about how **Autopilot** performed.  Mr. Musk has vocally defended his offerings, suggesting it would be unethical to not put such technology on the roadways to improve safety.  Despite the name, Full **Self-Driving** doesn't make cars fully autonomous, and **Tesla** instructs drivers to remain alert, with their hands on the wheel.  **Autopilot** can handle driving tasks on the highway, such as steering and adjusting speed. Full **Self-Driving** Beta, which **Tesla** charges customers $15,000 to buy, adds functionality beyond **Autopilot** and expands the areas and situations in which drivers can use the assistance features, allowing for navigation on city streets.  The software is available to any **Tesla** owner who buys the hardware and software suite of features needed for it, the company says.  The recall covers 2016-2023 **Tesla** Model S and Model X vehicles, 2017-2023 Model 3 sedans and 2020-2023 Model Y SUVs.  In the past, **Tesla** has said driving with **Autopilot** engaged is safer than driving without it. It also has cited its own data showing that **crashes** were less common when drivers were using **Autopilot**, though some researchers have criticized **Tesla**'s methodology.  NHTSA has been examining **Tesla**'s **driver-assistance** systems since mid-2021, when it opened a probe into a series of **crashes** in which **Tesla** vehicles using **Autopilot** struck first-responder vehicles stopped for roadway emergencies.  NHTSA said in a statement that it would continue to monitor the recall remedies **Tesla** issues for effectiveness. The recall doesn't address the full scope of NHTSA's investigation, which the agency said remains open and active.  The auto regulator last year said it was upgrading its investigation into the emergency-vehicle **crashes** to an engineering analysis after identifying new **crashes** involving **Autopilot**. The upgrade is a critical step for determining whether to order a safety recall. In doing so, NHTSA also said it has expanded its examination of **Autopilot** to include a wider range of **crashes**, not only those at emergency scenes.  The agency said it would further assess how drivers interact with **Autopilot** and the degree to which it might reduce motorists' attentiveness.  Jennifer Homendy, the head of the National Transportation Safety Board, last year said **Tesla** shouldn't roll out the city-driving tool before addressing what the agency views as safety deficiencies in the company's technology. The NTSB, which investigates **crashes** and issues safety recommendations though it has no regulatory authority, has urged **Tesla** to clamp down on how drivers are able to use the company's **driver-assistance** tools.  NHTSA said that testing performed by agency staff on vehicles equipped with **Tesla**'s advanced **driver-assistance** system was pivotal to its understanding of how the tech performed on the roads. |
| CO | teslmi : Tesla, Inc. | nathg : National Highway Traffic Safety Administration |
| IN | i35101 : Passenger Cars | iaut : Automotive | i351 : Motor Vehicles | i35104 : Alternative Fuel Vehicles |
| NS | crecal : Product Recalls | c13 : Regulation/Government Policy | gcar : Cars | crbrea : Regulatory Breach | neqac : Equities Asset Class News | nimage : Images | reqrau : Suggested Reading Automobiles | c12 : Corporate Crime/Legal Action | c26 : Product/Consumer Safety | ccat : Corporate/Industrial News | cexpro : Products/Services | gcat : Political/General News | gcrim : Crime/Legal Action | glife : Living/Lifestyle | ncat : Content Types | nfact : Factiva Filters | nfcpex : C&E Executive News Filter | nfcpin : C&E Industry News Filter | redit : Selection of Top Stories/Trends/Analysis | reqr : Suggested Reading Industry News |
| RE | usa : United States | namz : North America |
| IPC | ABO | AEQI | PIC | SGN | TRN | USG | AUTO | NND | BAF | SFR | TPT |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020230217ej2h0002l |

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| HD | U.S. News: Fatal **Tesla** **Crash** In 2021 Blamed On Driver |
| BY | By Rebecca Elliott |
| WC | 291 words |
| PD | 9 February 2023 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A5 |
| LA | English |
| CY | Copyright 2023 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | Federal safety officials said excessive speed and the driver's **failure** to control the car likely caused the fatal **crash** of a **Tesla** Inc. vehicle in Texas nearly two years ago.  The National Transportation Safety Board said in a report released Wednesday that evidence indicated that the driver of a **Tesla** Model S hadn't engaged any of **Tesla**'s advanced **driver-assistance** features before **crashing** north of Houston in April 2021. The car's two occupants died. |
| TD | Initially, a local constable said he believed the Model S had been operating without anyone in the driver's seat when it **crashed** into a tree. One of the men was found in the front passenger's seat, and the other in the back seat of the car, according to authorities.  "Although the driver's seat was found vacant and the driver was found in the left rear seat, the available evidence suggests that the driver was seated in the driver's seat at the time of the **crash** and moved into the rear seat postcrash," said the NTSB, which investigates **crashes** and issues safety recommendations.  **Tesla** didn't respond to a request for comment.  The NTSB's report echoed the agency's preliminary findings, which raised doubts that **Tesla**'s advanced **driver-assistance** system known as **Autopilot** was involved in the **crash**. The NTSB said in its latest update that the driver accelerated to 67 miles an hour on a residential street where the speed limit was 30 miles an hour, resulting in a loss of control. A toxicology report showed that the driver's blood-alcohol concentration was nearly twice the legal limit in Texas, the agency said. |
| CO | ntsbd : National Transportation Safety Board | teslmi : Tesla, Inc. |
| IN | i35101 : Passenger Cars | itsp : Transportation/Logistics | i351 : Motor Vehicles | iaut : Automotive | i35104 : Alternative Fuel Vehicles |
| NS | c13 : Regulation/Government Policy | gtacc : Transport Accidents | neqac : Equities Asset Class News | ccat : Corporate/Industrial News | gcat : Political/General News | gdis : Disasters/Accidents | gmmdis : Accidents/Man-made Disasters | gtrans : Transport | ncat : Content Types | nfact : Factiva Filters | nfcpin : C&E Industry News Filter |
| RE | usa : United States | ustx : Texas | namz : North America | uss : Southern U.S. |
| IPC | ABO | AEQI | SGN | NTS | USG | AUTO | NND | USN |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020230209ej2900020 |

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| HD |  | Porsche Shares Stall in Trading Debut --- Initial rise loses steam, falls short of forecast, prompting selloff of parent company VW |
| BY |  | By Ben Dummett and Patricia Kowsmann |
| WC |  | 1105 words |
| PD |  | 30 September 2022 |
| SN |  | The Wall Street Journal |
| SC |  | J |
| PG |  | B1 |
| LA |  | English |
| CY |  | Copyright 2022 Dow Jones & Company, Inc. All Rights Reserved. |
| LP |  | Porsche AG shares lost much of their luster on their first day of trading in Frankfurt, showing the struggles that even an iconic luxury car faces from the gloomy economic outlook and volatility that have weighed on markets.  After pricing its initial public offer late Wednesday at the top of the target range in Europe's largest IPO for over a decade, Porsche ended flat. The muted trading performance suggests the company may have priced the issue too aggressively. Typically a company tries to price a new issue at a level that maximizes sale proceeds but also ensures a rise in the stock price on the first day of trading. |
| TD |  | After the stock began trading on Thursday, they rose close to 5%, but began losing gains through the session. They ended at 82.50 euros in line with the IPO price. That gave the German-based company a market value of more than 75 billion euros, equivalent to more than $73 billion.  Still, that level puts Porsche among the top five biggest car markers measured by market value, behind its parent company Volkswagen AG, which retains a 75% stake, but ahead of German rival Mercedes-Benz Group AG. **Tesla** Inc.'s valuation of more than $886 billion leads the way, followed by Japan's Toyota Motor Corp.  Volkswagen preferred shares closed down by almost 7% in Frankfurt Thursday. Some investors had bought the stock ahead of Porsche's trading debut, betting it would jump with the expected 10% gain in Porsche's stock. But that didn't come close to happening, prompting the VW investors to sell their shares, particularly given the overall market decline and weakness in other major European car stocks, investors said.  Still, Porsche's ability to carry off the new listing stands out in an otherwise downbeat global market for initial public offerings. The total value of IPOs is down 70% globally to $135 billion so far in 2022 from the comparable period last year, according to data from Dealogic. Activity has suffered from a combination of equity volatility that makes valuing companies more challenging and the poor performance of recently listed companies.  Ahead of the IPO, some market participants suggested the stock could rise 10% or more on its debut. But worries over economic growth, rising bond yields and the recent instability in the U.K. dented some of the excitement.  Major stock indexes across Europe were all lower Thursday, including an almost 1% drop in Germany's DAX blue-chip benchmark. Also, many investors who only received a tiny allocation in the IPO decided to sell their shares after the expected early surge **failed** to materialize, said Alastair Mankin, a trader at brokerage firm Cowen Inc.  The deal comes as Volkswagen faces the prospect of slowing demand for its cars because of the risk of a global recession. The IPO will provide the manufacturer with crucial proceeds to help finance its aggressive push into electric vehicles, the development of new technology such as **self-driving** cars and the creation of a new business building batteries for its EVs.  Car companies are under pressure to invest billions into the development of electric vehicles and battery factories, investments spurred on by stricter tailpipe-emissions rules and **Tesla**'s meteoric rise.  "These proceeds are really for investing even more powerfully into the future of digitization and electrification," said Arno Antlitz, Volkswagen's chief financial officer, adding that the company is investing in its own battery technology, which will require several billions in funding. Volkswagen will potentially offer an IPO for that business in the future, Mr. Antlitz said.  The IPO was in part designed to give the heirs of the Porsche family some control back over the car maker after Porsche, then independent, **failed** to acquire VW more than a decade ago. The complex offering, which includes the private placement of voting shares to the family separate from the IPO, gives the members sufficient power to block any major strategic decisions by VW that they oppose.  At the same time, the offering shines a light on Porsche's value, while giving it greater independence to pursue its own electric-vehicle strategy.  With the launch of the all-electric Taycan in 2019, Porsche began moving into electric vehicles, which the company says will account for 80% of new car sales by 2030. Last year, the Taycan passed Porsche's iconic 911 sports car in sales and became the company's third-best-selling model after the Macan and Cayenne sport-utility vehicles.  Porsche Chief Executive Officer Oliver Blume said in an interview that the company "has shown a resilient business model especially in times of crisis." The past three years have been marked by the pandemic, semiconductor shortages and now the Ukraine crisis, but during that time "we have shown very high profit margins," he added.  The company posted revenue of 33.1 billion euros last year, generating a return on sales of 16%. That was up from 9.7% during the financial crisis in 2009. Meanwhile, annual car deliveries roughly tripled over that time to more than 300,000, according to the offering prospectus.  Porsche's rich customer base, which is able to more easily absorb rising prices and a general economic slowdown, offers it some protection against a downturn in demand.  In addition to his role at Porsche, Mr. Blume is VW's chief executive. Some analysts have said Mr. Blume's twin responsibilities could make it harder for him to give Porsche the focus it will need as a more independent company.  Compared with the overall size of Porsche, the IPO was relatively small. Volkswagen sold 12.5% of Porsche's stock in the form of nonvoting preferred shares in the offering, but as of Monday investors had already been told that orders had exceeded the available shares at 82.50 euros or the high end of the targeted range.  VW said that it expects to receive up to 9.4 billion euros in proceeds from the IPO, making it Europe's largest since the $10 billion offering by Glencore PLC in 2011. It is also raising another 10.1 billion euros from a separate private placement of voting shares to Porsche SE, VW's largest shareholder and the listed investment fund majority-owned by the heirs of the brand's founder, for a total of almost 20 billion euros. Almost 50% of the funds will be distributed to VW shareholders in a special dividend. |
| CO |  | porsch : Porsche Automobil Holding SE | vlkwag : Volkswagen AG |
| IN |  | i353 : Motor Vehicle Parts | i35101 : Passenger Cars | iaut : Automotive | iinv : Investing/Securities | i351 : Motor Vehicles | ifinal : Financial Services |
| NS |  | c1711 : Initial Public Offerings | c15 : Financial Performance | c1522 : Share Price Movement/Disruptions | ccat : Corporate/Industrial News | cdiv : Divestments | neqac : Equities Asset Class News | nimage : Images | npred : Economic Predictions/Forecasts | reqrau : Suggested Reading Automobiles | reqris : Suggested Reading Investing/Securities | c02 : Corporate Changes | c14 : Stock Listings | c17 : Corporate Funding | c171 : Share Capital | c18 : Ownership Changes | cactio : Corporate Actions | ncat : Content Types | nfact : Factiva Filters | nfce : C&E Exclusion Filter | nfcpin : C&E Industry News Filter | redit : Selection of Top Stories/Trends/Analysis | reqr : Suggested Reading Industry News |
| RE |  | gfr : Germany | eurz : Europe | dach : DACH Countries | eecz : European Union Countries | weurz : Western Europe |
| IPC |  | ABO | AEQI | DHS | EWR | PIC | SGN | SIC | AUTO | NND | BAF | SFR |
| PUB |  | Dow Jones & Company, Inc. |
| AN |  | Document J000000020220930ei9u0001s |

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| HD | EXCHANGE --- Business News: **Tesla** Asked About **Autopilot** Camera --- NHTSA requests more details about **driver- assistance** technology amid probe of **crashes** |
| BY | By Joseph De Avila |
| WC | 508 words |
| PD | 20 August 2022 |
| SN | The Wall Street Journal |
| SC | J |
| PG | B3 |
| LA | English |
| CY | Copyright 2022 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | U.S. auto-safety regulators are asking **Tesla** Inc. for information related to its cabin-camera system as part of an investigation into **crashes** involving its **driver-assistance** technology.  The National Highway Traffic Safety Administration sent a nine-page letter to **Tesla** on Thursday asking questions about its vehicles, including what role the cabin-camera system plays in driver-engagement alerts and timing. |
| TD | The agency is also asking the electric-car maker to identify each lawsuit filed against **Tesla** where the plaintiff alleges the **crash** was affected by the vehicle's hardware and software systems.  NHTSA asked **Tesla** to describe in detail the engineering and safety measures that went into design decisions for **Autopilot**, its **driver-assistance** technology.  **Tesla** must respond to a set of the requests by Sept. 19, the agency said. One additional reply is due Oct. 12.  **Tesla** didn't respond to a request to comment Friday.  The electric-car maker has long maintained that driving with **Autopilot** engaged is safer than doing so without it. **Tesla** points to internal data showing that **crashes** were less common when drivers were using **Autopilot**. Some researchers have criticized **Tesla**'s methodology.  **Autopilot** is designed to help drivers steer and keep an appropriate distance from other cars. The **driver-assistance** system tells motorists to pay attention to the road and keep their hands on the wheel.  NHTSA in June expanded its probe into a series of **crashes** in which **Tesla** vehicles using **Autopilot** struck first-responder vehicles stopped for roadway emergencies. The agency said it was upgrading its earlier investigation, which began in August 2021, after identifying new **crashes** involving **Autopilot** and emergency-response vehicles.  NHTSA said last August that it had found 11 incidents since early 2018 in which a **Tesla** vehicle using **Autopilot** struck one or more vehicles involved in an emergency situation. In June, the NHTSA said it identified six additional collisions.  The agency has expanded its probe of **Autopilot** to include **crashes** that didn't occur at emergency scenes.  NHTSA's probe into the **crashes** will determine whether it will order a safety recall. Car makers are required to recall their vehicles if a safety defect is discovered.  **Tesla** recalled about 135,000 Model S and Model X vehicles in the U.S. in 2021 due to touch-screen **failures**. **Tesla** said at the time that it disputed that the issue was because of a defect but recalled the cars in the interest of customer experience.  **Tesla** also recalled more than 285,000 vehicles in China in 2021 because of a cruise-control-related safety issue. China's State Administration for Market Regulation said the auto maker's cruise-control system could be activated **accidentally**, potentially leading to sudden acceleration. **Tesla** apologized and said it would improve safety in line with national requirements.  Shares of **Tesla** declined 2% to $890 in Friday trading. The shares are down about 16% year to date. |
| CO | teslmi : Tesla, Inc. | nathg : National Highway Traffic Safety Administration |
| IN | i35101 : Passenger Cars | i351 : Motor Vehicles | iaut : Automotive | i35104 : Alternative Fuel Vehicles |
| NS | gcar : Cars | crecal : Product Recalls | gvtrn : Transport Department | neqac : Equities Asset Class News | c26 : Product/Consumer Safety | ccat : Corporate/Industrial News | cexpro : Products/Services | gcat : Political/General News | glife : Living/Lifestyle | gpir : Politics/International Relations | gpol : Domestic Politics | gvbod : Government Bodies | gvexe : Executive Branch | ncat : Content Types | nfact : Factiva Filters |
| RE | usa : United States | namz : North America |
| IPC | ABO | AEQI | SGN | TRN | USG | AUTO | NND | BAF |
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| HD | OFF DUTY --- Gear & Gadgets -- Rumble Seat: Can the New Chevy Bolt EUV Win Back America's Trust? |
| BY | By Dan Neil |
| WC | 1197 words |
| PD | 6 August 2022 |
| SN | The Wall Street Journal |
| SC | J |
| PG | D10 |
| LA | English |
| CY | Copyright 2022 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | Although it sounds like something to do with old guys and Corvettes, "pathetic fallacy" is a term from literary criticism: the use of personification to achieve easy emotional effects. The door yawned and beckoned, and so forth.  As critic Northrop Frye might have observed, personification is lame. |
| TD | But I couldn't help myself. As I watched neighbors and dog-walkers peer hungrily through the windows of the 2022 Chevrolet Bolt EUV -- a slightly huskier version of the refreshed Bolt EV, now with less flammable batteries -- I quietly hoped it was enjoying the attention. That little bugger has been through some things.  Debuting for model-year 2017, the Bolt (midsize four-door hatchback) was GM's first mass-produced, long-range EV, the younger sibling to the Volt plug-in hybrid. With well-equipped models priced under $40,000 (including the $7,500 federal tax credit then available) and a reliable 200 miles of range between charges, the Bolt was a peppy paragon of appropriateness. All of Vulcan rejoiced.  In retrospect, it's clear GM's enthusiasm for EVs was not quite there yet: Marketing didn't support the Bolt; manufacturing didn't scale to meet demand; and sales/service were like, What? No. We need Silverados.  And then came the battery fires. After two years of headlines about fleetwide recalls and Do Not Drive orders, I figured the only tire-kickers would be pyromaniacs. But look at all these nice people. It's amazing what $5 a gallon gas has done for the little Chevy's sex appeal.  The cause of the fires was determined to be a glitch in the manufacturing of the pouch-style cells by supplier LG Chem. The problem was identified and remedied, with the fix being baked into the battery modules for new cars and those replacing recalled units. The new packs, assembled in Michigan, are limited-warrantied for eight years and 100,000 miles.  GM seemed to have handled the recall well. Repairing the Bolt's image will be harder.  Look, I've got no one to talk to. I'm reduced to spying on my neighbors from behind the drapes like Mrs. Kravitz. Can I just share? The Bolt battery fires absolutely floored me. One of the core assumptions of GM's electrification program was the superior safety and manufacturability of pouch-style, lithium-ion cells, as opposed cylindrical cells or those with other form factors.  For example: The way in which these cells -- looking a bit like Pop-Tarts' foil bags -- gang together in racks, then packs, requires fewer connections than cylindrical cells. Better, safer. The flat shape also offers more surface area for battery cooling; and preventing thermal runaway -- ignition -- is the most important thing. Just ask GM's in-house counsel.  In this way, safety would have seemed to play a determinative role in GM's use of such cells, even though they offer somewhat lower energy density compared to **Tesla**-typical cylindrical cells.  After this abundance of strategic caution, the LG Chem **failure** seemed unfair to GM and potentially misleading to consumers regarding the safety of EVs generally, since this technology is ubiquitous. Anyway, I'm confident the new Bolt, with battery 2.0, is super-duper safe.  When Bolt production resumed it included the model variant seen here, the EUV, which stands for "electric utility vehicle." Here's where I could use an "eye roll" emoji. While the EUV's wheelbase is 2.9 inches longer and overall length stretched 6.3 inches, those inches don't meaningfully add to the interior utility. I'm not sure what they do, frankly.  Behind that molded-plastic face mask, the EUV is largely identical to the Bolt EV, itself emerged from a mid-cycle refresh with lots of desirable upgrades. Window-peepers have seen the overhauled and updated cabin focused on the easy and effortless touch screen UX, including Apple CarPlay and Android Auto. Yes on wireless charging, yes on availability of GM's advanced **driver-assistance** system, called Super Cruise.  According to owners of first-Gen models, the new driver's seat is much more comfortable. I have to take their word for it; my butt's memory ain't what it used to be.  Under the hood is a 150 kW/360 Nm (200hp/266 lb-ft) permanent-magnet motor, offering plenty of swoosh as well as progressive levels of regenerative braking -- a little or a lot, up to one-pedal control -- activated via paddles on the backside of the steering wheel. There's also a dedicated switch in the center console to activate one-pedal mode. Bolts remain front-drive only, with no AWD option.  If, from a dead stop, you stand on the Go pedal, the EUV can scoot to 60 mph between 7-8 seconds, thereabouts and depending. The torque across the front axle can easily exceed the grip of the low-rolling-resistance tires, which makes it a bit of a squealer.  Even so, the Bolt EUV feels game and nimble, cheap and cheerful, with easy handling and a minimum of body roll while cornering, owing to the low-slung center of mass. Ride quality is good; interior noise level is just OK. It doesn't seem like much of the 3,679-pound curb weight was devoted to soundproofing materials.  In some ways, the Bolt is legacy-EV already. Back home in Detroit, all the sexy talk is about GM's Ultium platform, 320-mile Blazer EV crossovers and a Cadillac EV super sedan that will reportedly cost 300,000.  And yet this workaday EV everycar -- with a brand name up there with Ford Pinto in the category "famously flammable" -- seems to have acquired an unexpected, exquisite relevance, even desirability, despite its limitations as a sex machine.  The range is what it is -- figure 200 miles between charges, just to be safe. A full charge at home (240 V) takes 7 hours, so overnight. GM has defended the Bolt's smallish 65-kWh battery as an optimization of cost vs. utility: Why should consumers pay for longer range when research shows they will never use it? Of course, that rationale depends on home charging, which in the past has been left to consumers to arrange.  No more. Get this: With every Bolt purchased, the company will provide free standard-type Level 2 charging equipment and home installation, where available.  GM, I could kiss you.  ---  2022 Chevrolet Bolt EUV Premier  Starting price: $38,995  Price, as tested: $43,190  Powertrain: all-electric, direct-drive single front permanent-magnet motor with 7.05:1 final drive ratio; 65-kWh lithium-ion battery pack.  Power/torque: 150 kW (200 hp), 360 Nm (266 lb-ft)  Length/wheelbase/width/height: 169.5/105.3/69.7/63.6 inches  0-60 mph: 7 seconds  Curb weight: 3,679 pounds  Charging time: approx. 7 hours (240 V, to 100%); 95 miles in 30 minutes (DC fast charge)  EPA estimated range: 248 miles  Cargo capacity: 16.3/56.9 cubic feet (rear seat backs up/folded) |
| IN | i35101 : Passenger Cars | i351 : Motor Vehicles | iaut : Automotive |
| NS | gcar : Cars | crecal : Product Recalls | c22 : New Products/Services | c314 : Pricing/Prices | neqac : Equities Asset Class News | nrvw : Reviews | c26 : Product/Consumer Safety | c31 : Marketing | ccat : Corporate/Industrial News | cdom : Markets/Marketing | cexpro : Products/Services | gcat : Political/General News | glife : Living/Lifestyle | ncat : Content Types | nfact : Factiva Filters | nfce : C&E Exclusion Filter | nfcpin : C&E Industry News Filter |
| RE | usa : United States | usmi : Michigan | namz : North America | usc : Midwest U.S. |
| IPC | ABO | AEQI | SGN | AUTO | NND | OFD |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020220806ei860000c |

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| HD | EXCHANGE --- Keywords: **Self-Driving** Trucks Are Just Around the Bend --- Big rigs will become truly autonomous before cars, but are still years from having a major impact on how we transport goods |
| BY | By Christopher Mims |
| WC | 1606 words |
| PD | 18 June 2022 |
| SN | The Wall Street Journal |
| SC | J |
| PG | B2 |
| LA | English |
| CY | Copyright 2022 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | Some day in the next few years, if you're on the right stretch of highway in America's Sunbelt, you are likely to have the disconcerting experience of pulling alongside a fully loaded semi truck, glancing at the cab, and seeing no one behind the wheel at all.  Unless you look closely, the truck you're likely to see will look very much like a regular big rig. It will still have a steering wheel -- twitching, as if moved by ghostly hands. It will also have those oversize rearview mirrors trucks have, only these will be even more exaggerated in scale, since they will double as mounts for sensors -- including radar, lidar, and cameras -- that help the truck see things even an experienced human driver might miss. |
| TD | This truck won't be as smart or adaptable as a human, but it will have superhuman senses, and won't need to rest. What's more, it won't be susceptible to many of the pitfalls that have made autonomy in passenger vehicles largely a disappointment, with companies blowing past one self-imposed deadline after another. While the **self-driving** passenger-vehicle industry struggles to gain traction despite decades and tens of billions of dollars in investment, proponents of **self-driving** trucks say they could be here -- and making money for their operators -- much sooner.  Some of the companies involved say they will have the first trucks without drivers in the cab on America's highways by the end of next year. Those include Aurora, which has partnerships with FedEx and Werner Enterprises, and TuSimple, which has joined up with UPS and Ryder.  When it gains widespread traction, robot trucking will have big implications for how we move goods around America -- and for the companies and people involved in that process. For starters, it could help alleviate a chronic shortage of drivers, who are retiring faster than they can be replaced, leading to what the American Trucking Associations claims is a historic shortage of 80,000 drivers.  Here's the promise of robot trucks: While full **self-driving** in all conditions is still a pipe dream, engineers seem to be close to achieving it in limited circumstances, such as on highways on clear days. And highway driving, in good weather, happens to be exactly the context in which long-haul trucks operate for a substantial portion of the time.  One reason for that: Highways are what Aurora Chief Executive Chris Urmson calls self-similar.  "A bit of freeway in Texas looks very much like a bit of freeway in Phoenix or Minnesota," says Mr. Urmson, a former faculty member at Carnegie Mellon University and Google executive who co-founded Aurora in 2017. The similarity is good for the artificial-intelligence technology that underpins **self-driving**, which can be great at handling things it has seen before, and terrible at adapting to situations that are novel. Anyone who has tried GM's Super Cruise, Nissan's ProPilot Assist, or **Tesla**'s **Autopilot** system has experienced this firsthand.  Highways also have the virtue of being relatively free of pedestrians, bicyclists, animals and children chasing after balls, and they tend to be well-marked and well-maintained.  Highways in Southwestern states, where the weather is generally good, are where autonomous trucking companies are currently testing their systems, carrying real loads for actual clients like FedEx and UPS, albeit with safety drivers behind the wheel in case the AI systems make a mistake -- which they still do.  So, in good weather, a robot truck will see farther than a person can. It will never grow drowsy or inattentive. It will be able to operate 24 hours a day, stopping only for fuel and maintenance.  Now, there are also reasons to discount claims about commercial autonomous trucking happening in the next couple of years, or making a big difference anytime soon.  For one, the younger companies trying to pioneer the technology have to sustain the interest of investors until they start making money.  And that could be a while: Aurora, for example, has said that it will lose money until 2027. Chief Financial Officer Richard Tame said the company has enough cash to fund operations through the introduction of its first autonomous truck next year and into 2024. The company has said in public filings that it expects it will eventually need to raise additional capital.  Even if startups do get their trucks rolling on schedule, it could take a while to have a real impact. By the end of 2023, Aurora will be putting "on the order of dozens" of driver-free trucks on America's highways, says Sterling Anderson, the company's chief product officer.  TuSimple also aims to have a fully autonomous commercial-trucking service operating in the U.S. by the end of 2023, says CEO Xiaodi Hou. In the meantime, the company also plans to begin delivering freight for Union Pacific with fully autonomous trucks, says a company spokesman.  Compared with the total number of large trucks rolling in America today -- nearly four million, half of them the type that haul freight long distance -- the scant dozens of **self-driving** trucks projected to be on the road by the end of 2023 would be a drop in the ocean.  Waymo -- which, as a unit of Google parent Alphabet, has less pressing concerns about funding -- is less aggressive in its prediction for the arrival of robo-rigs. Its trucking-focused arm, Waymo Via, hasn't set a date for its trucks to operate with no human in the cab, despite having already entered partnerships with trucking companies C.H. Robinson and J.B. Hunt and truck maker Daimler Truck, among others. Waymo has many reasons for that reticence, says Charlie Jatt, its head of commercialization for trucking. An important one is that there is no production-ready, commercially available truck with the redundant control systems that a **self-driving** system would require.  If power steering goes out in a human-controlled vehicle, a driver could still potentially muscle it to the side of the road. But with no human in the cab, an autonomous vehicle must have backup steering, braking and electrical systems, says Mr. Jatt. Getting all of these into trucks that can be made not just one at a time but by the tens of thousands is why Waymo has joined with Daimler Truck, he adds.  Indeed, everyone I interviewed for this piece, except for TuSimple, said that the potential for their systems to make mistakes is the reason they haven't rolled them out yet -- even those who claim to be close to doing so. (A recent report from the U.S. National Highway Traffic Safety Administration listed more than 100 **accidents** involving vehicles equipped with autonomous driving systems over the past year.)  Still, the potential financial benefits of robo-trucking technology are so enormous that shippers and trucking companies are likely to embrace it as soon as they feel it is ready.  Adding even $20,000 of hardware, in the form of additional sensors and powerful computers, to a long-haul truck is quickly offset by the elimination of labor costs, which typically represent 15% to 20% of the cost of operating a truck. Another big economic impact is that by law a human driving a truck must stop and rest. That means every truck, which can cost between $100,000 and $200,000, is being used only about 30% to 40% of the time. Just running them 24 hours, stopping only for fuel and maintenance, increases their utilization by a factor of two or more.  Regulations are hardly a barrier to rolling out autonomous trucks. NHTSA has created suggested guidelines, which most states have adopted. These call for companies to, in essence, self-regulate. "A small handful of states have certain certifications or prohibitions, but all the rest are open for business," says Aurora's Mr. Anderson.  Autonomous-truck companies like his have for the most part moved on to validating their tech, rather than continuing to build it, says Don Burnette, CEO of Kodiak Robotics, another **self-driving** trucking startup. That's why, for the industry as a whole, deployment of safe, commercially viable, fully autonomous trucks is just a couple of years away, he adds.  Longer term, robot trucks could go from driver-shortage solution to driver-job killer.  As **self-driving** trucks become more capable, and can perform most of the driving on long trips throughout most of America, they could ultimately threaten nearly all the roughly 500,000 long-haul trucking jobs in the U.S.  It's worth noting that existing long-haul trucking jobs are already a far cry from the solid middle-class gigs they were in the 1970s, before deregulation of the trucking industry, says Steve Viscelli, an expert in the trucking industry at the University of Pennsylvania and a member of the industry advisory council at Aurora. He believes **self-driving** trucks will continue what has been a decadeslong transformation of the industry.  "I think after that the pace of adoption could be significantly faster than people expect, over the following decade," says Dr. Viscelli. "These trucks are going to have different capabilities than a human-driven truck will have, so they will not be used in the way a human-driven truck will be used -- in the same way a hundred guys with shovels are not an excavator." |
| IN | i353 : Motor Vehicle Parts | i723 : Trucking | iadrive : Autonomous Driving Technologies | itsp : Transportation/Logistics | iaut : Automotive | icargo : Freight Transport/Logistics | irailtr : Land Transport | itech : Technology |
| NS | neqac : Equities Asset Class News | reqrau : Suggested Reading Automobiles | ncat : Content Types | nfact : Factiva Filters | redit : Selection of Top Stories/Trends/Analysis | reqr : Suggested Reading Industry News |
| RE | usa : United States | namz : North America |
| IPC | ABO | AEQI | MEN | SGN | AUTO | NND | TRSH | BAF |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020220618ei6i0001f |

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| CLM | Business & Finance |
| SE | What's News |
| HD | Business & Finance |
| WC | 250 words |
| PD | 16 June 2022 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A1 |
| LA | English |
| CY | Copyright 2022 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | The Fed approved a 0.75-percentage-point rate increase, the largest rise since 1994, and signaled it would continue lifting rates this year at the most rapid pace in decades to combat inflation that is running at a 40-year high.  U.S. stocks ended higher in the wake of the central bank's policy meeting, with the S&P 500, Nasdaq and Dow posting gains of 1.5%, 2.5% and 1%, respectively. U.S. government bonds rallied. |
| TD | Bitcoin staved off a fall under $20,000, bolstered by a market rally after the Fed's rate decision.  ---  Retail spending in the U.S. declined in May as consumers felt the pinch from inflation, higher gasoline prices and rising interest rates.  ---  Total U.S. home equity increased almost 20% in the first quarter to $27.8 trillion, a record high, according to the Fed.  ---  Musk is expected to confirm his desire to own Twitter when he speaks to the company's employees on Thursday, according to a person familiar with the matter.  ---  **Tesla** reported the most vehicle **crashes** suspected of involving advanced **driver-assistance** technology in the U.S. government 's first-ever survey of such incidents.  ---  McDonald's has agreed to pay roughly $1.3 billion in fines and back taxes to settle a tax dispute in France.  ---  An EU court scrapped a $1.04 billion fine that the bloc's antitrust regulator had levied on Qualcomm over payments it made to Apple . |
| CO | fed : Board of Governors of the Federal Reserve System |
| NS | mcryp : Cryptocurrency Markets | ccat : Corporate/Industrial News | mntdbt : National Government Debt/Bond Markets | ncdig : Corporate Digests | ncolu : Columns | npag : Page One Stories | m12 : Debt/Bond Markets | m13 : Money/Currency Markets | m132 : Foreign Exchange Markets | mcat : Commodity/Financial Market News | mgvdbt : Government Debt/Bond Markets | ncat : Content Types | nfact : Factiva Filters | nfce : C&E Exclusion Filter |
| RE | usa : United States | namz : North America |
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| PUB | Dow Jones & Company, Inc. |
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| HD | Probe of **Tesla** **Crashes** Expands --- Road-safety agency to perform engineering analysis of car maker's **Autopilot** feature |
| BY | By Ryan Felton |
| WC | 731 words |
| PD | 10 June 2022 |
| SN | The Wall Street Journal |
| SC | J |
| PG | B1 |
| LA | English |
| CY | Copyright 2022 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | U.S. auto-safety regulators have escalated their investigation into emergency-scene **crashes** involving **Tesla** Inc.'s **Autopilot**, a critical step for determining whether to order a safety recall.  The National Highway Traffic Safety Administration said in a notice published Thursday that it was expanding a probe begun last August into a series of **crashes** in which **Tesla** vehicles using **Autopilot** struck first-responder vehicles stopped for road emergencies. |
| TD | The agency said it was upgrading its earlier investigation to an engineering analysis after identifying new **crashes** involving **Autopilot** and emergency-response vehicles.  NHTSA also said it has expanded its examination of **Autopilot** to include a wider range of **crashes**, not only those at emergency scenes. The agency said it would further assess how drivers interact with **Autopilot** and the degree to which it might reduce motorists' attentiveness.  Forensic data available for 11 of the **crashes** showed that drivers **failed** to take evasive action in the two to five seconds before the collision, the agency said.  The investigation covers an estimated 830,000 **Tesla** vehicles made from 2014 to 2021, including the Model 3, Model S, Model X and Model Y.  NHTSA said in its filing that it has identified 15 injuries and one fatality related to the **crashes**.  **Tesla** didn't respond to a request for comment. The electric-car maker's stock fell just under 1% to $719.12 on Thursday.  **Autopilot**, **Tesla**'s name for the advanced **driver-assistance** technology used in its vehicles, is designed to help drivers with tasks such as steering and keeping a safe distance from other vehicles. **Tesla** instructs drivers using the system to pay attention to the road and keep their hands on the wheel.  The electric-car maker has long maintained that driving with **Autopilot** engaged is safer than doing so without it. **Tesla** points to internal data showing that **crashes** were less common when drivers were using **Autopilot**. Some researchers have criticized **Tesla**'s methodology.  In opening its initial probe last year, NHTSA said that it had identified 11 **crashes** since early 2018 in which a **Tesla** vehicle using **Autopilot** struck one or more vehicles involved in an emergency-response situation. In its latest filing, the agency said it discovered six additional **crashes** involving Teslas and first-responder vehicles where **Autopilot** was in use.  The expanded probe of **Autopilot** is the latest sign that U.S. auto-safety regulators are getting more aggressive in scrutinizing advanced vehicle technologies that automate some or all of the driving tasks.  NHTSA is getting ready to release new **crash** data this month that will give the public its first detailed look at the frequency and severity of incidents involving what are known as automated driving or advanced **driver-assistance** features, The Wall Street Journal has reported.  More than 100 companies are subject to an agency order requiring them to report **crashes** in which such systems were in use. Among those included are operators of autonomous-car fleets, like Alphabet Inc.'s Waymo and General Motors Co.'s Cruise LLC.  The technology under scrutiny includes lane-keeping assistance and cruise-control systems that keep a fixed distance behind a leading car, as well as higher-tech systems such as features that can guide a car along highways with minimal driver input.  **Autopilot** has become a particular focus for U.S. regulators in recent years, prompted by incidents in which drivers have misused the technology, overriding safety functions to operate a vehicle without their hands on the wheel, for example. Some critics also said the term **Autopilot** risks giving drivers an inflated sense of the system's capabilities.  NHTSA said in its latest filing that driver use or misuse of **Autopilot** doesn't necessarily preclude the agency from determining whether the technology is defective.  "This is particularly the case if the driver behavior in question is foreseeable in light of the system's design or operation," NHTSA said. Auto makers are legally required to initiate a recall if a safety defect is discovered in their vehicles.  Separately, NHTSA has opened a broader investigation into several dozen **crashes** where advanced **driver-assistance** features are suspected to have played a role. While the probe covers vehicles made by any car company, incidents involving Teslas represent most of the cases. |
| CO | teslmi : Tesla, Inc. | nathg : National Highway Traffic Safety Administration |
| IN | i35101 : Passenger Cars | iaut : Automotive | i351 : Motor Vehicles | i35104 : Alternative Fuel Vehicles |
| NS | crecal : Product Recalls | gtacc : Transport Accidents | gvtrn : Transport Department | neqac : Equities Asset Class News | c13 : Regulation/Government Policy | reqrau : Suggested Reading Automobiles | c26 : Product/Consumer Safety | ccat : Corporate/Industrial News | cexpro : Products/Services | gcat : Political/General News | gdis : Disasters/Accidents | gmmdis : Accidents/Man-made Disasters | gpir : Politics/International Relations | gpol : Domestic Politics | gtrans : Transport | gvbod : Government Bodies | gvexe : Executive Branch | ncat : Content Types | nfact : Factiva Filters | nfcpin : C&E Industry News Filter | redit : Selection of Top Stories/Trends/Analysis | reqr : Suggested Reading Industry News |
| RE | usa : United States | namz : North America |
| IPC | ABO | AEQI | SGN | TRN | USG | AUTO | NND | BAF | SFR | TPT |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020220610ei6a00029 |

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| HD | EXCHANGE --- **Tesla** Comes Under Scrutiny Over Braking |
| BY | By Kathryn Hardison |
| WC | 338 words |
| PD | 4 June 2022 |
| SN | The Wall Street Journal |
| SC | J |
| PG | B10 |
| LA | English |
| CY | Copyright 2022 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | The U.S. auto-safety regulator is asking **Tesla** Inc. to provide information over a growing number of customer complaints that the company's most popular vehicles brake for unexpected reasons as it intensifies its monthslong scrutiny of the issue.  The National Highway Traffic Safety Administration said Friday that it issued a letter to **Tesla** last month after receiving 758 reports of unexpected braking, often called "phantom braking," in some Model 3 sedans and Model Y crossover vehicles from 2021 and 2022. The figure is about double the number of complaints NHTSA earlier this year said it had received. The auto maker has until June 20 to respond, NHTSA said. |
| TD | **Tesla** didn't respond to a request for comment. The auto maker has said its cars have the highest safety rating attainable in the U.S.  The company's shares closed 9% lower Friday.  The braking occurs when the vehicle's advanced **driver-assistance** features, part of a system called **Autopilot**, are engaged, consumers have alleged.  In a letter to Eddie Gates, **Tesla**'s director of field quality, NHTSA requested the company provide details related to the vehicles **Tesla** has manufactured, consumer complaints and its field reports.  NHTSA also requested **Tesla** provide copies of all documents, analyses, telematics reports, data logs and videos or photos for the Model Y and Model 3 vehicles, noting that it aims to determine the scope and severity of the potential problem. Such probes can lead to recalls.  If the company **fails** to respond, **Tesla** could be subject to civil penalties and other actions.  NHTSA has been scrutinizing **Tesla**'s systems more closely in recent months.  The agency opened a broader investigation into **Autopilot** last year after a series of **crashes** involving Teslas and one or more parked emergency vehicles.  **Tesla** has already agreed to 12 recalls that could affect more than 2.25 million vehicles, according to NHTSA. Those recalls were issued for fixes to air bags, seats, electrical systems and backover prevention. |
| CO | teslmi : Tesla, Inc. | nathg : National Highway Traffic Safety Administration |
| IN | i35101 : Passenger Cars | i351 : Motor Vehicles | iaut : Automotive | i35104 : Alternative Fuel Vehicles |
| NS | crecal : Product Recalls | gcar : Cars | gvtrn : Transport Department | neqac : Equities Asset Class News | c13 : Regulation/Government Policy | c26 : Product/Consumer Safety | ccat : Corporate/Industrial News | cexpro : Products/Services | gcat : Political/General News | glife : Living/Lifestyle | gpir : Politics/International Relations | gpol : Domestic Politics | gvbod : Government Bodies | gvexe : Executive Branch | ncat : Content Types | nfact : Factiva Filters | nfcpin : C&E Industry News Filter |
| RE | usa : United States | namz : North America |
| IPC | ABO | AEQI | SGN | TRN | USG | AUTO | NND | BAF |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020220604ei640001g |

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| HD | **Tesla** Hits $1 Trillion Valuation Following Big Order --- Company joins tech titans in exclusive club after its stock more than doubles in a year |
| BY | By Rebecca Elliott and Dave Sebastian |
| WC | 869 words |
| PD | 26 October 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A1 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | **Tesla** Inc. crossed $1 trillion in market value Monday, joining a select group of companies after its stock price more than doubled this past year on surging vehicle sales and rising profits.  Investors pushed the electric-vehicle maker over the line after Hertz Global Holdings Inc. ordered 100,000 autos to be delivered to the rental-car company by the end of next year, a bulk purchase that promises to expose more mainstream drivers to **Tesla**'s technology. |
| TD | Apple Inc. Microsoft Corp., Amazon.com Inc., Google parent Alphabet Inc. are the only other U.S. companies worth more $1 trillion. Facebook Inc. was part of the group, but its share price has since retreated. **Tesla**, which last week reported record quarterly profit, is worth more than the next nine largest auto makers by market capitalization combined.  "Wild $T1mes!" **Tesla** Chief Executive Elon Musk tweeted Monday afternoon. He added, of the Hertz order: "Strange that moved valuation, as **Tesla** is very much a production ramp problem, not a demand problem."  **Tesla**'s stock closed at $1,024.86 a share, up more than 12% on the day and giving the company a market value of $1.03 trillion.  **Tesla**'s valuation has soared unusually quickly. It took less than two years for **Tesla**'s market value to grow from $100 billion to $1 trillion, according to Dow Jones Market Data. By contrast, it took Amazon more than eight years to cover that ground.  The run-up in **Tesla**'s share price has benefited Mr. Musk, the company's largest shareholder and the world's wealthiest person. Mr. Musk's **Tesla** holdings, including vested and unvested options, were worth about $297 billion as of Monday, according to corporate-governance data company Equilar Inc. That is more than the valuation of Toyota Motor Corp., the second-largest auto maker by market capitalization.  Hertz's **Tesla** order is part of a broader effort by the rental company to give customers more battery-powered options on rental-car lots.  The Estero, Fla.-based company said that starting in early November and expanding through the end of the year, Hertz customers will be able to rent a **Tesla** Model 3 at airports and other locations in major U.S. markets and some cities in Europe.  Financial terms of the deal between Hertz and **Tesla** weren't provided. Based on list prices, the cost to Hertz would top $4 billion; however, historically it is common for such bulk orders to include a discount for the rental-car company. Mr. Musk on Monday tweeted that "cars sold to Hertz have no discount."  Electric vehicles will make up more than 20% of the company's global fleet with the current order, Hertz said Monday. The rental-car company said it introduced electric vehicles into its fleet in 2011.  The order represents a major chunk of **Tesla**'s annual production volume, which has been growing in recent years. The electric-car maker delivered nearly half a million vehicles globally last year and, based on performance through September, is in a position to deliver nearly 900,000 vehicles to customers this year.  While the Hertz deal should allow more people to drive Teslas, it comes as scrutiny of **Tesla**'s advanced **driver-assistance** features has intensified. On Monday, the head of the National Transportation Safety Board doubled down on earlier criticism, chastising **Tesla** for not addressing what the agency views as safety deficiencies in the company's **driver-assistance** technology.  "[O]ur **crash** investigations involving your company's vehicles have clearly shown that the potential for misuse requires a system design change to ensure safety," NTSB Chairwoman Jennifer Homendy said in a letter to Mr. Musk.  The NTSB investigates **crashes** and makes safety recommendations but doesn't have regulatory authority. The agency has urged **Tesla** to take additional steps to limit how drivers are able to use the company's advanced **driver-assistance** technology, which doesn't make vehicles autonomous.  **Tesla** didn't respond to a request for comment about the letter.  Hertz is making the investment after emerging from bankruptcy under new ownership. It filed for bankruptcy in May 2020 as the debt-laden company suffered from a collapse in reservations as travel came to a halt during the early days of the pandemic.  "Electric vehicles are now mainstream, and we've only just begun to see rising global demand and interest," said Mark Fields, Hertz's interim chief executive.  Hertz warned that efforts to electrify its fleet could be hampered by factors outside its control, such as the shortage of semiconductors and other constraints. **Tesla** has a network of charging stations for its vehicles to augment those that people install in their homes. **Tesla** users, at times, have complained about long wait periods at charging facilities. **Tesla** says on its website that it has more than 25,000 charging stations world-wide, principally in North America and Europe. Hertz said it is also installing thousands of electric-vehicle chargers in its network.  ---  Ken Jimenez contributed to this article. |
| CO | amzcom : Amazon.com, Inc. | goog : Alphabet Inc. | hoeznj : Hertz Global Holdings Inc. | mcrost : Microsoft Corporation | teslmi : Tesla, Inc. |
| IN | iaut : Automotive | i35104 : Alternative Fuel Vehicles | i35101 : Passenger Cars | i351 : Motor Vehicles | i3302 : Computers/Consumer Electronics | i330202 : Software | i3302021 : Applications Software | i64 : Retail/Wholesale | i656000301 : Etailing | i8395464 : Internet Search Engines | i84 : Rental/Leasing Services | i84801 : Passenger Car Rental/Leasing | iautlsg : Vehicle Rental/Leasing | ibcs : Business/Consumer Services | icomp : Computing | iecom : E-commerce | iint : Online Service Providers | iretail : Retail | itech : Technology |
| NS | ccat : Corporate/Industrial News | neqac : Equities Asset Class News | npag : Page One Stories | c151 : Earnings | c333 : Non-Government Contracts/Orders | reqrau : Suggested Reading Automobiles | c15 : Financial Performance | c33 : Contracts/Orders | ncat : Content Types | nfact : Factiva Filters | nfcpin : C&E Industry News Filter | redit : Selection of Top Stories/Trends/Analysis | reqr : Suggested Reading Industry News |
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| 30HD | Inside View: **Failure** Is Always an Option |
| BY | By Andy Kessler |
| WC | 829 words |
| PD | 18 October 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A15 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | As the Elizabeth Holmes trial for alleged fraud at her startup Theranos winds on, the biggest question is: When the company's blood testing machines didn't work, why didn't she change tactics? Real entrepreneurs **fail** early and often. Ms. Holmes instead was stubborn and chose deception over **failure**. That's a shame. Despite today's IPO and SPAC fireworks, the truth is that in Silicon Valley most ideas **fail**. Heck, most companies **fail**. More than half of venture-capital investments are smoking holes in the ground. Fortunately, success often rises from the ashes of ruin. |
| TD | Some history of **failure**: Thomas Edison, the "Wizard of Menlo Park" (New Jersey, not California), had the hardest time finding a filament for his incandescent lightbulb. He tried bamboo, cedar and flax until he found that carbonized cotton worked. "I have not **failed**. I've just found 10,000 ways that won't work," Edison said. **Fail** until you succeed beats fake it till you make it.  Then there is the computer mouse. The Douglas Engelbart version of 1968 was a crude wooden block on two wheels with three buttons. Xerox PARC came up with a better mouse using a metal ball and motion sensors. Steve Jobs wanted one, so Apple hired a design firm, which came up with over 25 prototypes, all **failures**, until a design in 1981 worked. Think of all the **failed** mice it took to create today's curved mouse with multiple buttons, a scroll wheel and optical sensors. Speaking of **failures**, James Dyson made 5,127 prototypes over four years for his "cyclone" vacuum cleaner.  Entrepreneur Stewart Butterfield once tried to build a multiplayer online game but switched to photo sharing, selling Flickr to Yahoo in 2005 for $25 million. Success, but not a home run in Silicon Valley. Mr. Butterfield left Yahoo in 2008 to help found a company called Tiny Speck and build another multiplayer online game called "Glitch." Persistence! "Glitch" attracted tens of thousands of gamers, but not enough to cover its costs, so Mr. Butterfield killed it in 2012.  Tiny Speck pivoted, which in Silicon Valley means **fail** and scramble to do something else. The company had built its own crude internal communications system for employees to chat digitally during the development of "Glitch." Maybe others would use it. Seven months after they started work on Slack, the company announced its preview release. On the first day of the press blitz, 8,000 people requested the preview version. In February 2014 Slack had 16,000 users and by November it had 285,000, with 73,000 paying for it. Now more than 10 million people use it daily. Mr. Butterfield sold Slack to Salesforce for $27.7 billion last year. That's **failing** upward!  Then there's Elon Musk, who very openly noted, "My proceeds from the PayPal acquisition were $180 million. I put $100 million in SpaceX, $70m in **Tesla**, and $10m in SolarCity. I had to borrow money for rent." SpaceX was founded in 2002 and scraped by for years. **Tesla**'s original Roadsters had quality issues, and I used to see flatbed trucks hauling **failed** Roadsters back to the dealership. SolarCity was kind of a dud.  Success has many fathers and detours. While we shouldn't encourage **failure**, we shouldn't penalize it either by shunning **failed** entrepreneurs as losers. **Failure** is part of the natural evolution to success.  **Failure** is why so many things are invented by entrepreneurs instead of by big companies. Few inside General Motors or General Electric or IBM want to risk their careers on something bold. Potential innovators fear **failure** that could tarnish their rise to department head and a slightly bigger office.  Venture capital and Silicon Valley are a virtuous risk-taking loop with money looking for returns and ideas looking for money. Rather than one command-and-control corporate person to pitch an idea to, there are scores of venture firms that specialize in hearing "out there" ideas. Get a no? Just walk across the street. Some VC firms even openly talk about the successful companies they chose not to fund.  Some big companies allow skunk-work projects, and Google even funds so-called moon shots like **self-driving** Waymo. But successful spinouts are still rare.  A friend once confessed to being nervous about joining a startup. "What if it **fails**?" he asked. After my usual suggestion of adding a zero to whatever share amount they offer, I said, "So what? You're still you. You won't **fail**, though the company might. You can always get another job to make money or start something else." **Failure** is an option, even if it isn't the preferred one. I wish someone had told that to Ms. Holmes.  ---  Write to kessler@wsj.com  (See related letter: "Letters to the Editor: Basic Due Diligence Turned Up Red Flags at Theranos" -- WSJ Nov. 2, 2021) |
| CO | thrns : Theranos, Inc. |
| IN | i951 : Healthcare/Life Sciences | i95105 : Medical Laboratory Services | iphhss : Healthcare Support Services | iphlab : Medical/Clinical/Diagnostic Services |
| NS | centrp : Entrepreneurs/Startups | gfraud : Fraud | nedc : Commentaries/Opinions | ccat : Corporate/Industrial News | csmlbs : Small/Medium Businesses | gcat : Political/General News | gcrim : Crime/Legal Action | ncat : Content Types | nfact : Factiva Filters | nfcpex : C&E Executive News Filter |
| RE | usca : California | usa : United States | namz : North America | usw : Western U.S. |
| IPC | NND | EDP |
| PUB | Dow Jones & Company, Inc. |
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| HD | Business News: **Tesla** Quarterly Deliveries Hit Record Despite Supply Snarls |
| BY | By Rebecca Elliott |
| WC | 587 words |
| PD | 4 October 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | B3 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | **Tesla** Inc. overcame snarled global supply chains to deliver a record number of vehicles in the third quarter.  The Silicon Valley electric-vehicle maker delivered 241,300 vehicles to customers in the three months ended in September, it said Saturday, up from 139,593 vehicles during the same period last year. Analysts surveyed by FactSet forecast **Tesla** would deliver roughly 227,000 vehicles in the quarter. |
| TD | The result positions **Tesla** to easily achieve its full-year goal of increasing deliveries by more than 50% over last year's total of nearly half a million vehicles. The company has put a total of roughly 627,000 vehicles in customer hands through the first nine months of the year.  That growth comes despite supply-chain disruptions that have constrained vehicle production across the global auto industry, leaving buyers with fewer options and denting sales. It has also upended the usual hierarchy in the U.S. auto market, where Toyota Motor Corp. outsold traditional standard-bearer General Motors Co. in the third quarter.  The continuing semiconductor shortage is likely to cost the global auto industry $210 billion in lost revenues this year, consulting firm AlixPartners LLP said. In the U.S., the pace of auto sales was expected to fall in September to an annualized rate of 12.4 million vehicles, the lowest rate since May 2020, according to Wards Intelligence.  **Tesla** Chief Executive Elon Musk nodded to those headwinds in a note to employees last month, in which he said the company worked around shortages by building cars with missing parts that needed to be added later, according to a person familiar with the matter.  **Tesla** delivered a combined 232,025 Model 3 sedans and Model Y compact sport-utility vehicles in the third quarter, up from 124,318 of those models a year earlier. It was the first full quarter since **Tesla** introduced an upgraded version of its Model S luxury sedan, dubbed the Plaid.  The company handed over 9,275 of its higher-end models: Model S sedans and Model X sport-utility vehicles. **Tesla** delivered a total of 15,275 Model S and Model X vehicles during last year's third quarter.  As of Friday, analysts surveyed by FactSet expected **Tesla** to report third-quarter profits of around $1.1 billion on revenue of more than $13 billion. That is up from a $331 million profit on $8.8 billion in revenue during the year-prior period.  **Tesla** meanwhile has been preparing to expand public access to an advanced **driver-assistance** tool that is designed to help people navigate cities, adding to a suite of features that has mainly been intended for highway driving.  The promise of **Tesla**'s advanced **driver-assistance** software has attracted customers and investors, helping to transform **Tesla** into the most valuable auto maker in the world. Its shares closed at $775.22 Friday.  "[P]otential for further upside for the stock will be defined by **Tesla**'s success in endeavors outside vehicle sales -- specifically on vehicle autonomy," Credit Suisse analyst Dan Levy wrote in a recent note to investors.  Yet the company has drawn scrutiny from a chorus of transportation officials and safety advocates who have expressed concern about possible misuse of such tools. The National Highway Traffic Safety Administration opened an investigation in August into advanced **driver-assistance** features offered by the company after a series of **crashes** involving Teslas and one or more parked emergency vehicles. |
| CO | teslmi : Tesla, Inc. |
| IN | i35101 : Passenger Cars | i351 : Motor Vehicles | iaut : Automotive | i35104 : Alternative Fuel Vehicles |
| NS | c33 : Contracts/Orders | neqac : Equities Asset Class News | c333 : Non-Government Contracts/Orders | ccat : Corporate/Industrial News | ncat : Content Types | nfact : Factiva Filters | nfcpin : C&E Industry News Filter |
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| HD |  | Inside View: Ilhan Omar's Idea of Progress |
| BY |  | By Andy Kessler |
| WC |  | 850 words |
| PD |  | 27 September 2021 |
| SN |  | The Wall Street Journal |
| SC |  | J |
| PG |  | A15 |
| LA |  | English |
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| LP |  | Rep. Ilhan Omar (D., Minn.), along with five other Democrats, recently introduced H.R. 4894, the Genuine Progress Indicator Act of 2021. The bill, only six pages long, is a glaring example of why Congress has a meager 28% approval rating.  The goal is a progressive alternative to gross domestic product, which presumably is an unjust tool to prop up big bad business. "The world needs new economic indicators and economic policies that will prioritize and encourage truly sustainable and equitable development," Ms. Omar claims. The bill requires that "the head of each Federal agency, the President, the Chair of the Federal Reserve, and Congress shall" use both the genuine progress indicator and GDP when budgeting or forecasting economic activity. |
| TD |  | The new measure, a cousin of the United Nations' squishy World Happiness Report, is likely being proposed to rationalize the progressive multitrillion "infrastructure" spending blowout. The genuine progress indicator aims to blur the lines between entitlement and investment. This is dangerous. As Sen. Kirsten Gillibrand (D., N.Y.) tweeted, "Paid leave is infrastructure. Child care is infrastructure. Caregiving is infrastructure." No, they're not.  So what is genuine progress? A 2018 paper in Ecological Economics -- regrettably, my subscription has lapsed -- defines it as the net of benefits and costs neglected in GDP, things like "inequality, regrettable defensive expenditures, uncounted environmental externalities, depletion of natural resources, and trade-offs with non-work uses of time." Squishy indeed.  In H.R. 4894, benefits that don't show up in GDP but would in the genuine progress indicator include "environmental and social factors" addressing "ecological scarcities" and directing "resources to sustainable development without degrading the environment," you know, things like carbon sequestration and "maintenance of biological and genetic diversity." Probably on purpose, these are not as easy to measure as lemonade sales or how many widgets roll off an assembly line. I would guess when Democrats are in control, genetic diversity and social factors would rise, and when Republicans are, environmental degradation would send genuine progress spiraling.  Home improvements, especially solar panels, would be a benefit, as would infrastructure like sewers and bridges. OK. And higher education. Got to fund those professors. But then it gets fuzzy. "Time spent on leisure activities," "household duties" and "volunteering" are all benefits. So are "hunting and fishing" and "harvesting of plants for medicinal and edible purposes." So yes, playing "Call of Duty: Black Ops" is a sign of genuine progress. So is cleaning your garage. And growing rutabagas -- or weed -- in your garden. As is a lazy day fishing for trout. Do your part to juice genuine progress by vacationing all year!  But sadly, there are costs. Aren't there always? Income inequality is the first cost listed. It must be really bad for genuine progress. According to the World Bank, whose credibility shattered after it was caught juicing economic numbers for China, the U.S. ranks 51st in the world in inequality with a GINI coefficient of 41.5. A GINI coefficient of 0 is perfect equality and 100 is total inequality. If only we could be like countries with lower GINI numbers, like Haiti or Iran or Tunisia or Kazakhstan or the most equal country in the world, with a GINI of 25, Ukraine. On second thought, no thanks.  There are plenty of other costs to genuine progress: underemployment, homelessness, domestic abuse, pollution and "the loss of natural wetlands." Fair enough, these are legitimate and undermeasured economic concerns. But, wouldn't you know it, "high amounts of carbon dioxide" and "depletion of nonrenewable sources of energy" are also costs.  Then the bill adds this doozy as a cost: "lost leisure time due to traffic congestion." No one likes to be stuck in traffic, though it's often a productive time to make long phone calls and to think. Or, if you dare, you could put your **Tesla** on **autopilot** and watch Netflix in the back seat.  But here's the rub: The pandemic lockdowns would have caused an improvement in some factors of the genuine progress indicator. There was no traffic anywhere. As the economy tanked, we used less oil. The smog cleared in Los Angeles and coyotes joined the homeless on the streets of San Francisco. We don't need fantasyland economic indicators so politicians could argue for more lockdowns.  Yes, GDP is flawed. Official inflation numbers miss the technology-driven improvements in our lives. The billionfold drop in computing costs over the past 50 years barely shows up in GDP. There should be serious debate about how we should measure an economy, or if we even have to.  But Ms. Omar's bill is meant to change the subject, similar to stakeholder vs. shareholder capitalism. And it would become an excuse factory: "Yes, our schools are **failing**, but the genuine progress indicator was up 0.3% last month." Sadly, the time spent debating or even thinking about the bill, like being stuck in traffic, would lower the genuine progress indicator. Better if Congress goes fishing.  ---  Write to kessler@wsj.com |
| NS |  | gcat : Political/General News | gsust : Sustainable Development/Sustainability | ecat : Economic News | gpol : Domestic Politics | gvcng : Legislative Branch | nedc : Commentaries/Opinions | e11 : Economic Performance/Indicators | e1101 : Economic Growth/Recession | genv : Natural Environment | gpir : Politics/International Relations | gvbod : Government Bodies | ncat : Content Types | nfact : Factiva Filters | nfcpex : C&E Executive News Filter |
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| HD | **Tesla**'s Upgrade Plan Rankles Safety Agency |
| BY | By Rebecca Elliott |
| WC | 999 words |
| PD | 20 September 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A1 |
| LA | English |
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| LP | **Tesla** Inc. is readying a major upgrade of its **driver-assistance** software but the top federal **crash** investigator says the move might be premature.  Chief Executive Elon Musk said last week that drivers would soon be able to request an enhanced version of what **Tesla** calls its "Full **Self-Driving** Capability." The upgrade is expected to add a feature intended to help vehicles navigate cities, expanding the suite of **driver-assistance** tools that had been designed mainly for highways. |
| TD | Despite its name, Full **Self-Driving** doesn't make cars fully autonomous, and **Tesla** instructs drivers to remain alert, with their hands on the wheel.  Jennifer Homendy, the new head of the National Transportation Safety Board, said **Tesla** shouldn't roll out the city-driving tool before addressing what the agency views as safety deficiencies in the company's technology. The NTSB, which investigates **crashes** and issues safety recommendations though it has no regulatory authority, has urged **Tesla** to clamp down on how drivers are able to use the company's **driver-assistance** tools.  "Basic safety issues have to be addressed before they're then expanding it to other city streets and other areas," she said in an interview. Ms. Homendy also expressed concern about how **Tesla** software is tested on public roadways.  Ms. Homendy called **Tesla**'s use of the term Full **Self-Driving** "misleading and irresponsible," adding that people pay more attention to marketing than to warnings in car manuals or on a company's website. In **Tesla**'s case, she said, "It has clearly misled numerous people to misuse and abuse technology."  Mr. Musk has said **Tesla**'s advanced **driver-assistance** features prevent **crashes** and make driving safer. He has expressed mixed views about the Full **Self-Driving** system in recent months.  "We need to make full **self-driving** work in order for it to be a compelling value proposition. Otherwise people are, you know, kind of betting on the future," he said in July, responding to a question about customer interest in subscribing to **Tesla**'s Full **Self-Driving** package.  **Tesla** didn't respond to requests for comment.  Some safety advocates and transportation officials have raised concerns that drivers might be overestimating the capabilities of advanced **driver-assistance** systems such as **Tesla**'s.  "We're consistently hearing that it's definitely a work in progress, so it's just how do we make sure the public understands its limitations?" Reema Griffith, executive director of the Washington State Transportation Commission, told The Wall Street Journal.  **Tesla**'s urban-driving aid so far has only been available to a relatively small circle of employees and customers for testing purposes. The company began releasing a pilot version late last year, according to company correspondence with the California Department of Motor Vehicles, and has been expanding access. The program included about 2,000 **Tesla** owners as of March, Mr. Musk said.  **Tesla** plans to monitor the driving patterns of the customers who request the enhanced system, Mr. Musk said last week in a tweet, and grant access after seven days of good behavior. Those who aren't careful will have their access revoked, he said.  "2000 beta users operating for almost a year with no **accidents**. Needs to stay that way," Mr. Musk said.  The company began deploying advanced **driver-assistance** software, dubbed **Autopilot**, to vehicles in 2015 to help with tasks such as steering and adjusting to the flow of traffic on the highway. It has augmented that system over the years, with the goal of eventually enabling its vehicles to operate autonomously.  **Tesla**'s new city-driving tool is part of its Full **Self-Driving** package. **Tesla** sells the suite for $10,000 or a monthly subscription that costs up to $199. Other features in the Full **Self-Driving** bundle are already publicly available, including tools that help vehicles change lanes on the highway and slow down at stop signs. New Street Research estimated in July that about 360,000 people had purchased the Full **Self-Driving** system, covering about one-fifth of the **Tesla** fleet at the time.  Investors' belief in the promise of **Tesla**'s **automation** technology has helped to transform the company into the world's most valuable auto maker, with a market capitalization of around $750 billion, more than five times that of Volkswagen AG. Last year, Volkswagen delivered more than 18 times as many vehicles as **Tesla**.  **Tesla**'s technology has faced increasing scrutiny. The National Highway Traffic Safety Administration, the country's auto-safety regulator, launched a probe last month after a spate of **crashes** in which Teslas that had been operating with **Autopilot** engaged ran into one or more parked emergency vehicles such as police cars. NHTSA has requested a trove of data from **Tesla** and other auto makers as it seeks to compare advanced **driver-assistance** systems. The agency also recently began requiring auto makers to report serious **crashes** involving such features.  Meanwhile, the California DMV is reviewing whether **Tesla** violated a state regulation that bars companies from falsely advertising vehicles as autonomous.  Ms. Homendy said those with regulatory power should be moving more aggressively to issue appropriate regulations. "Doing investigations after the fact, that's a tombstone mentality," she said. "You can proactively address potential future **crashes** and future deaths by taking action, by issuing regulations, performance standards aimed at saving lives."  A NHTSA spokeswoman said the agency was taking steps that were necessary precursors to any new regulatory action.  Ken McElhaney Jr., a 61-year-old retired insurance agent from Mobile, Ala., bought **Tesla**'s upgraded **driver-assistance** system last year. He said he knew the system was a "work in progress" when he bought it -- and that was part of the appeal.  "It's a little bit like going to a restaurant on a soft opening," he said. "It's kind of fun to be in early, but you understand they're still working out the kinks." |
| CO | ntsbd : National Transportation Safety Board | teslmi : Tesla, Inc. |
| IN | i3302 : Computers/Consumer Electronics | i35101 : Passenger Cars | iadrive : Autonomous Driving Technologies | iaut : Automotive | i351 : Motor Vehicles | itech : Technology | i35104 : Alternative Fuel Vehicles |
| NS | gptech : Personal Technology | glife : Living/Lifestyle | gmmdis : Accidents/Man-made Disasters | c22 : New Products/Services | neqac : Equities Asset Class News | npag : Page One Stories | reqrau : Suggested Reading Automobiles | ccat : Corporate/Industrial News | cexpro : Products/Services | gcat : Political/General News | gdis : Disasters/Accidents | ncat : Content Types | nfact : Factiva Filters | nfcpin : C&E Industry News Filter | redit : Selection of Top Stories/Trends/Analysis | reqr : Suggested Reading Industry News |
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| CLM | Business World |
| HD | **Tesla** and the Metaverse |
| BY | By Holman W. Jenkins, Jr. |
| WC | 859 words |
| PD | 1 September 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A13 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | **Tesla** chief Elon Musk was obliged to make an ignominious admission to the California Department of Motor Vehicles. What **Tesla** dubs its "Full **Self Driving** Capability," and charges up to $10,000 for, is actually, in the jargon of the industry, a Level 2 driving aid. In other words, no different from what other car makers, from GM to Kia, provide as an option or even standard equipment. It can steer and match traffic speed on the highway or in bumper-to-bumper situations. In no case, though, are you encouraged to take your hands off the wheel and eyes off the road. |
| TD | **Tesla**'s Level 2 package also appears to **fail** disconcertingly at a basic autonomous vehicle job, performed in many cars by a radar array costing less than $200. It doesn't reliably avoid collisions with stationary objects such as emergency vehicles. A federal investigation has opened and we can already anticipate its findings: **Tesla**'s implementation of Level 2 is as good as anybody's; the problem is caused by **Tesla** owners believing their cars to be more advanced than they are.  By now a succession of Mr. Musk's claims have painted a trajectory to a universe still out of view. By last year, **Tesla** should have flipped a switch and turned every **Tesla** into a free-roaming robot taxi, earning its owner easy money when the car otherwise would be idle.  OK, it's been three years since the media began backpedaling from its own role in **self-driving** hype. Uber and Lyft have sold off their autonomous vehicle experiments.  But while **self-driving** is stuck in neutral, the technology underlying it has advanced by leaps: artificial intelligence, machine vision, graphical computation, mobile bandwidth.  The problem for autonomous driving is the real-world complications: a heavy object collides with another heavy object, causing injury, death, property damage and lawsuits. But the same technology is increasingly capable of creating digital representations of the real world in which these untoward outcomes never arise.  These artificial worlds, ironically, are already at work trying to fix the challenges of autonomous driving. In simulated environments, software is being trained on unlikely scenarios involving, say, a combination of bicyclists, defaced stop signs and windblown plastic bags that even teams of thousands of networked cars might not encounter in years of driving.  But then a question comes up: Who needs a **self-driving** car when you can have a **self-driving** car simulator?  Think about it.  You might still jump into a car to avoid a Zoom meeting in favor of a real-world encounter with colleagues or friends. But how about the option demonstrated by Facebook's Mark Zuckerberg, in which participants, using Oculus headsets, could feel uncannily present as a group of avatars, even hearing their voices from different directions? The avatars are Wii-like now but one day may be indistinguishable from real persons.  Facebook is not everybody's bet to win the race for the "metaverse," to use the word suddenly on the lips of every computing and telecommunications executive.  Nvidia, the graphics chip maker, recently launched an artificial environment suite called Omniverse, which tellingly includes Pixar's (the animation movie studio) "Universal Scene Description" software. "The economy in the metaverse will be larger than the economy in the physical world," predicts Nvidia chief Jensen Huang.  In another **self-driving** irony, BMW has adopted Omniverse to maintain an exacting simulation of its plant in Regensburg, Germany. BMW uses the artificial environment to experiment with new ways of building cars that fewer people in the future might need if it turns out they prefer to inhabit artificial environments.  It will be easier and more fun to go places artificially. In the metaverse, you can arrive instantly, or if you want the experience of traveling, arrive at any speed. If you feel like having an **accident** on the way, you can. If you want to experience a head-on collision with a tractor-trailer, feel free, just for fun. If you want to drive through New York City at 200 mph, you can. Cher can be waving at you from every corner. A parade of brontosauruses can be waiting to cross at the next light.  Human beings already interact by the thousands in videogame worlds they prefer to the real world. In another **self-driving** irony, Elon Musk has been artificial reality's greatest salesman, with his frequent musing that we already exist in a simulation.  Yes, the **self-driving** car is coming. In fact, it's here. Waymo (the Google affiliate) operates on the meticulously mapped, weather-free streets of Phoenix. **Self-driving** vehicles will soon be turning up in other controlled settings. Stretches of highway may one day be engineered to let drivers turn their attention to their iPads for extended periods.  But the day may never come when a **self-driving** car will be able to take you most places a real driver can, in every kind of weather. And, by then, so much of our lives may be in the cloud that it won't matter. |
| CO | cadmvh : California Department of Motor Vehicles | teslmi : Tesla, Inc. |
| IN | i35101 : Passenger Cars | iaut : Automotive | i351 : Motor Vehicles | i35104 : Alternative Fuel Vehicles |
| NS | ncolu : Columns | nedc : Commentaries/Opinions | neqac : Equities Asset Class News | reqrau : Suggested Reading Automobiles | ncat : Content Types | nfact : Factiva Filters | nfcpex : C&E Executive News Filter | redit : Selection of Top Stories/Trends/Analysis | reqr : Suggested Reading Industry News |
| RE | usca : California | usa : United States | namz : North America | usw : Western U.S. |
| IPC | ABO | AEQI | MEN | SGN | AUTO | NND | BZW | EDP |
| PUB | Dow Jones & Company, Inc. |
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| HD | EXCHANGE --- The Score: The Business Week in 7 Stocks |
| BY | By Francesca Fontana |
| WC | 692 words |
| PD | 21 August 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | B2 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | TARGET CORP.  TGT -2.8% |
| TD | People are shopping in person again. Target reported increased revenue in the second quarter as more people returned to stores to purchase apparel, food and other items. Online spending abated compared with last summer. The report came a day after larger rival Walmart Inc. reported strong in-store sales and foot traffic. The results from both chains showed little impact from the recent rise in Covid-19 cases in the U.S. Target executives said that the Delta variant's spread hasn't yet resulted in changes to consumer behavior. Target shares fell 2.8% Wednesday.  T-MOBILE US INC.  TMUS -2.9%  T-Mobile is hearing static about a cyberattack. The cellphone carrier said that hackers stole information on millions of people, including Social Security numbers and driver's license data for current and prospective customers. T-Mobile first addressed the breach on Monday, and an update on Friday brought the total number of compromised user records to more than 54 million. Investigators say that stolen data has already been offered for sale in online forums and could eventually be used to commit fraud such as identity theft. T-Mobile shares lost 2.9% Monday.  PFIZER INC.  PFE -2.2%  The U.S. is giving Covid-19 boosters a shot. The Biden administration on Wednesday called for a third vaccine dose starting this fall for adults who were fully vaccinated with the two-shot regimen from Pfizer and partner BioNTech SE or from Moderna Inc. The booster shot will be administered about eight months after the second dose, starting the week of Sept. 20. Pfizer shares fell 2.2% Wednesday, while Moderna lost 0.8%.  **TESLA** INC.  TSLA -4.3%  Auto safety regulators are revving up an investigation of **Tesla**'s **Autopilot**. The National Highway Traffic Safety Administration is scrutinizing the electric-car maker's advanced **driver-assistance** system after a series of **crashes** at emergency scenes. The probe made public Monday is the latest sign that U.S. authorities are starting to examine **driver-assistance** technologies. NHTSA had identified 11 **crashes** since early 2018 in which a **Tesla** vehicle that had been using **Autopilot** struck one or more vehicles involved in an emergency-response situation. **Tesla** shares declined 4.3% Monday.  JOHNSON & JOHNSON  JNJ +0.5%  A change in leadership at Johnson & Johnson won't mean a new prescription for the drugmaker. When Chief Executive Alex Gorsky steps aside Jan. 3, he will hand over the reins to longtime company veteran Joaquin Duato. The transition suggests J&J will chart the same kind of course it would have if Mr. Gorsky had stayed in the job. Mr. Duato will confront several matters that Mr. Gorsky hasn't resolved, including lawsuits alleging its Johnson's talcum powder caused cancer or mesothelioma and reports of rare side effects with its Covid-19 vaccine. J&J shares rose 0.5% Friday.  AMAZON.COM INC.  AMZN -0.4%  Amazon made life difficult for department stores. Now it wants to build more of them. The e-commerce giant plans to open several large physical retail locations that will operate like department stores, The Wall Street Journal reported Thursday. The news comes after years of taking market share from big-box operators, helping push many into bankruptcy. The new Amazon stores of roughly 30,000 square feet will dwarf many of the company's other retail spaces and will be similar to scaled-down formats of chains such as Bloomingdale's Inc. Amazon shares fell 0.4% Thursday.  NETFLIX INC.  NFLX +4.2%  Netflix is grappling with a scandal that sounds like the script for its next crime thriller. Three former Netflix software engineers and two close associates accumulated $3 million in profit from trading confidential information about Netflix's subscriber growth, the U.S. Securities and Exchange Commission said Wednesday. The SEC said a former Netflix software engineer led the insider-trading ring, sharing data with his brother and friend so they could trade Netflix securities ahead of earnings announcements. Netflix shares added 4.2% Thursday. |
| CO | dayhud : Target Corporation | wlmrt : Walmart Inc |
| IN | i257 : Pharmaceuticals | i35101 : Passenger Cars | i372 : Medical Equipment/Supplies | i656 : Mixed Retailing | i7902 : Telecommunication Services | iaut : Automotive | iretail : Retail | i351 : Motor Vehicles | i64 : Retail/Wholesale | i951 : Healthcare/Life Sciences | i6560002 : Department Stores | i6560011 : Shopping Malls/Superstores |
| NS | c15 : Financial Performance | c1522 : Share Price Movement/Disruptions | ccat : Corporate/Industrial News | neqac : Equities Asset Class News | nimage : Images | reqrau : Suggested Reading Automobiles | reqrph : Suggested Reading Pharmaceuticals | reqrre : Suggested Reading Retail | ncat : Content Types | nfact : Factiva Filters | nfce : C&E Exclusion Filter | nfcpin : C&E Industry News Filter | redit : Selection of Top Stories/Trends/Analysis | reqr : Suggested Reading Industry News |
| RE | usa : United States | namz : North America |
| IPC | ABO | AEQI | CMR | EWR | PIC | SGN | AUTO | HCR | MENT | NND | RTWS | TEL | BAF |
| PUB | Dow Jones & Company, Inc. |
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| CLM | Heard on the Street |
| HD | **Tesla**'s Ascent Can't Remain on **Autopilot** |
| BY | By Charley Grant |
| WC | 409 words |
| PD | 17 August 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | B12 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | [Financial Analysis and Commentary]  Monday's news that U.S. auto safety regulators are investigating **Tesla**'s advanced **driver-assistance** system **Autopilot** after a series of **crashes** involving emergency vehicles didn't seriously rattle its shareholders. |
| TD | The auto maker's shares fell by 4.3% on Monday but have doubled over the past year. There are bigger, more mundane risks to **Tesla**'s stock price, though.  In some ways, investors' nonchalant attitude makes sense given the company's history. Chief Executive Elon Musk has clashed with various regulators over the past half decade. Even serious incidents, such as Mr. Musk's 2018 settlement of securities fraud charges with the Securities and Exchange Commission, have only briefly affected **Tesla**'s fortunes on Wall Street. As for **Autopilot**, regulators have looked into various incidents with the system since 2016 and haven't taken action against **Tesla** that would cost investors.  Being able to overlook those bumps in the road has proved profitable, resulting in huge gains for long-term shareholders but also creating a problem for the stock in the present. **Tesla** is sporting an extraterrestrial valuation in an earthbound industry: Its market value stands at more than five times the combined value of Ford Motor and General Motors, despite having minuscule global market share.  That valuation is even more concerning when one considers that **Tesla** has lately posted its best business results on record: The auto maker earned $1.41 a share in the first half of this year. Assuming things continue to go well, **Tesla** might earn $4 a share in 2021. Even under that scenario, **Tesla** trades at about 170 times this year's earnings. The mightiest auto manufacturers command perhaps 12 times earnings in a typical environment.  Meanwhile, incumbent auto makers have embraced electric cars after decades of indifference, which isreason to worry that growth prospects for **Tesla** aren't as rosy as Wall Street seems to think. Indeed, customers in Western Europe, a highly friendly market for electric cars, registered roughly 98,000 Teslas in 2020, down about 11% from 2019, while overall registrations of all-electric vehicles more than doubled, according to Schmidt Automotive Research. **Tesla**'s share of the market fell to around 13% in 2020 from about 31% a year earlier.  That should give sensible investors reason to pump the brakes, even if Monday's selloff quickly loses its charge. |
| RF | page,5043 |
| CO | teslmi : Tesla, Inc. |
| IN | iaut : Automotive | i35101 : Passenger Cars | i351 : Motor Vehicles | i35104 : Alternative Fuel Vehicles |
| NS | c1522 : Share Price Movement/Disruptions | ccat : Corporate/Industrial News | ncolu : Columns | neqac : Equities Asset Class News | nhrd : Heard on the Street | npda : DJ Exclusive Analysis - All | npqda : DJ Exclusive Analysis - Equities | c1521 : Analysts' Comments/Recommendations | c15 : Financial Performance | ncat : Content Types | nfact : Factiva Filters | nfce : C&E Exclusion Filter | nfcpin : C&E Industry News Filter |
| RE | usa : United States | namz : North America |
| IPC | ABO | AEQI | EQDA | PMDA | SGN | AUTO | NND | BAF | HST |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020210817eh8h0001x |

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| 17HD | **Tesla**'s **Autopilot** Faces Federal Safety Inquiry |
| BY | By Rebecca Elliott |
| WC | 959 words |
| PD | 17 August 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A1 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | U.S. auto safety regulators are investigating **Tesla** Inc.'s advanced **driver-assistance** system known as **Autopilot** after a series of **crashes** at emergency scenes.  The National Highway Traffic Safety Administration probe made public Monday is the latest sign that U.S. authorities are beginning to scrutinize **driver-assistance** technologies more closely after largely giving companies free rein. |
| TD | NHTSA said it had identified 11 **crashes** since early 2018 in which a **Tesla** vehicle that had been using **Autopilot** struck one or more vehicles involved in an emergency-response situation.  Four of the **crashes** NHTSA is probing happened this year and most took place after dark, the agency said. In one such **crash** in March, the driver of a **Tesla** Model Y had **Autopilot** engaged before plowing into a police vehicle that had stopped along a Lansing, Mich., area highway to investigate a separate **crash**, Michigan State Police said. The police vehicle had its emergency lights on, police said.  NHTSA is studying the **Autopilot** system in some 765,000 **Tesla** vehicles from the 2014 through 2021 model years. **Autopilot** is available on vehicles made in late 2014 and later, according to **Tesla**'s website. Such investigations can but don't always lead to recalls.  Advanced **driver-assistance** systems aren't tightly regulated in the U.S. NHTSA recently began requiring companies to regularly report **crashes** involving such features to the agency.  **Tesla**, whose shares were down more than 4% Monday, didn't respond to a request to comment. The electric-vehicle company has long said that driving with **Autopilot** engaged is safer than doing so without it.  **Autopilot** is designed to help drivers with tasks such as steering and keeping a safe distance from other vehicles on the road. **Tesla** instructs drivers using the system to pay attention to the road and to keep their hands on the wheel.  However, the system has drawn scrutiny for how some drivers misuse the technology, overriding safety functions to operate the vehicle without their hands on the wheel, for example. Some critics also said the term **Autopilot** risks giving drivers an inflated sense of the system's capabilities.  NHTSA said its probe would examine how the car maker monitors driver engagement and how vehicles identify roadway obstacles. The agency has opened more than two dozen investigations into **crashes** thought to be related to **Tesla**'s advanced **driver-assistance** system.  Sean Kane, president of auto safety advocacy organization Safety Research & Strategies Inc., welcomed NHTSA's **Autopilot** probe but said that the agency should have set stricter rules to begin with.  "It's an after-the-fact fix when it could have been dealt with on the front end and prevented," he said.  **Tesla** uses examples of traffic scenarios to train its **driver-assistance** technology and help determine the appropriate course of action.  **Autopilot** has evolved over time and has long relied on a combination of cameras, radar and other sensors. However, several months ago, the company did away with radar in Model 3 sedans and Model Y compact sport-utility vehicles made for the North American market.  Duke University engineering professor Mary "Missy" Cummings said that cameras and radar can both have trouble recognizing parked police cruisers or other equipment such as traffic cones. Radar can struggle to distinguish between stationary objects, while cameras will help a vehicle identify obstacles only if the system has been trained to recognize that specific scenario, she said.  Emergency vehicles don't always behave in consistent ways -- sometimes pulling over and partially blocking a lane -- and that can make it challenging for **driver-assistance** systems to react appropriately.  "This is why emergency situations are so problematic," Dr. Cummings said. "The visual presentation is never the same."  Andrej Karpathy, senior director of artificial intelligence at **Tesla**, recently spoke about some of those challenges while discussing the company's technology at an industry conference. "The problem with radar is like, once in a while, at random, it will give you a dumb measurement, and you will not know when that is," he said in June.  NHTSA's action adds to the heightened regulatory scrutiny **Tesla** has faced in recent months.  Earlier this year, two U.S. senators -- Democrats Richard Blumenthal of Connecticut and Edward Markey of Massachusetts -- urged NHTSA to develop recommendations for improving advanced **driver-assistance** systems such as **Tesla**'s **Autopilot**. Their comments followed a fatal **crash** in Texas, though another federal safety agency that investigates **crashes**, the National Transportation Safety Board, has since raised doubts that **Autopilot** was involved.  Sens. Blumenthal and Markey called on NHTSA to conduct its investigation quickly, thoroughly and in a transparent manner.  The probe "should inform the agency's recommendations on fixes the company must implement to improve the safety of its automated driving and **driver assistance** technology and prevent future **crashes**," the senators said in a joint statement Monday.  **Tesla** recently recalled more than 285,000 vehicles in China to address a cruise control-related safety issue.  China's State Administration for Market Regulation said **Tesla**'s cruise-control system could be activated **accidentally**, potentially causing sudden acceleration. Most of the vehicles affected by the recall were made at **Tesla**'s factory in Shanghai, and the software fix could be completed remotely. **Tesla** apologized to car owners in connection with the recall and said it would continue to improve safety in line with national requirements.  In the U.S., **Tesla** agreed early this year to recall about 135,000 Model S and Model X vehicles over touch-screen **failures**. **Tesla** said at the time that it disagreed that the issue constituted a defect in the vehicles but that it was going ahead with a recall in the interest of customer experience. |
| CO | teslmi : Tesla, Inc. | nathg : National Highway Traffic Safety Administration |
| IN | i35101 : Passenger Cars | i351 : Motor Vehicles | iaut : Automotive | i35104 : Alternative Fuel Vehicles |
| NS | gtacc : Transport Accidents | gmmdis : Accidents/Man-made Disasters | gdis : Disasters/Accidents | gcar : Cars | gvtrn : Transport Department | neqac : Equities Asset Class News | npag : Page One Stories | gcat : Political/General News | glife : Living/Lifestyle | gpir : Politics/International Relations | gpol : Domestic Politics | gtrans : Transport | gvbod : Government Bodies | gvexe : Executive Branch | ncat : Content Types | nfact : Factiva Filters |
| RE | usa : United States | namz : North America |
| IPC | ABO | AEQI | SGN | TRN | USG | AUTO | NND | PGO | TPT |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020210817eh8h0001n |

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| HD | U.S. News: **Driver-Assistance Crashes** Get Scrutiny |
| BY | By Matt Grossman |
| WC | 370 words |
| PD | 30 June 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A3 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | Federal regulators are tightening their oversight of car **crashes** that involve advanced **driver-assistance** or automated-driving features, a shift that follows growing concern over the role that systems such as **Tesla** Inc.'s **Autopilot** have had in **crashes**.  The National Highway Traffic Safety Administration said in a new order on Tuesday that companies must report serious **crashes** involving **driver-assistance** and automated-driving systems to authorities within a day of learning about them. Manufacturers and operators will also have to issue broader monthly reports about their vehicles' safety. |
| TD | "Gathering data will help instill public confidence that the federal government is closely overseeing the safety of automated vehicles," NHTSA acting Administrator Steven Cliff said.  The data will help investigators track patterns in automated-driving **crashes**, the agency said.  The order applies to simpler **driver-assistance** features that are already relatively commonplace, as well as more automated systems that are just beginning to gain wider adoption. The technology under scrutiny includes lane-keeping assistance and cruise-control systems that keep a fixed distance behind a leading car, as well as higher-tech systems such as features offered by **Tesla** that can guide a car along highways with minimal driver input.  **Tesla** didn't respond to an inquiry.  Potential safety issues with the systems include sensor **failures** and faulty decisions by software algorithms, NHTSA said in the order.  Fully **self-driving** cars, such as those being developed by Alphabet Inc.'s Waymo, would also fall under the order's purview, the administration said. Waymo operates a ride-hailing service in the Phoenix area using autonomous minivans, and other developers have been testing **self-driving** cars on public roads in various cities.  NHTSA, which regulates auto makers, has looked into more than two dozen **accidents** involving **Tesla** vehicles, including several this year. One, a fatal Texas **crash** in April, happened without **Autopilot** engaged, **Tesla** Chief Executive Elon Musk said on Twitter.  That **accident** followed three other nonfatal **Tesla crashes** in February and March that also drew federal probes.  The National Transportation Safety Board, which issues safety recommendations, has also encouraged NHTSA to do more to ensure that **driver-assistance** features are safe. |
| CO | teslmi : Tesla, Inc. | nathg : National Highway Traffic Safety Administration |
| IN | i35101 : Passenger Cars | i351 : Motor Vehicles | iaut : Automotive | i35104 : Alternative Fuel Vehicles |
| NS | gmmdis : Accidents/Man-made Disasters | gcar : Cars | gdis : Disasters/Accidents | c26 : Product/Consumer Safety | gtacc : Transport Accidents | gtrans : Transport | gvtrn : Transport Department | ccat : Corporate/Industrial News | cexpro : Products/Services | gcat : Political/General News | glife : Living/Lifestyle | gpir : Politics/International Relations | gpol : Domestic Politics | gvbod : Government Bodies | gvexe : Executive Branch |
| RE | usa : United States | namz : North America |
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| HD | REVIEW --- Books: They Think They're So Smart |
| BY | By David A. Shaywitz |
| WC | 1766 words |
| PD | 22 May 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | C7 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | 'I, for one, welcome our new computer overlords," a wry Ken Jennings wrote in 2011 after he was decisively defeated in "Jeopardy!" by IBM's Watson computer and the artificial intelligence that powered it. A decade later, Mr. Jennings's sentiments seem prescient. Alexa and Siri inhabit our homes and our devices. Digital transformation has overtaken our workplaces. AI-driven recommendation engines help determine the movies we watch, the products we buy and the information we receive, influencing our preferences and inflaming our politics.  Yet the concept of intelligent computers, advanced by the British mathematician Alan Turing in 1950, isn't new; nor is the term "artificial intelligence," first used at a research conference in 1956. What has changed is AI's power and reach, especially with the arrival of what is called "deep learning" -- the capacity for powerful pattern recognition, with seemingly little human instruction required. |
| TD | In "Genius Makers" (Dutton, 370 pages, $28), New York Times technology reporter Cade Metz tells the story of the scientists who developed deep learning, a small group of researchers "who nurtured an idea for decades, often in the face of unfettered skepticism before it suddenly came of age."  At the epicenter of the effort is Geoff Hinton, scion of a long line of prominent British academics. Captivated by the idea that computers could mimic the brain, Mr. Hinton followed his passion from Edinburgh to Pittsburgh to the University of Toronto, where he and his students, in the early 2010s, showed that a mathematical system "modeled on the web of neurons in the brain" could identify common objects "with an accuracy that had previously seemed impossible." The feat was achievable so long as the computer could first learn from vast troves of data. The approach rapidly moved from the detection of cats in YouTube videos to intuitive digital assistants and software designed to flag credit-card fraud.  Mr. Hinton and his students were soon working for Google, while colleagues were snatched up by other tech powerhouses like Facebook in California and Baidu in China, companies "caught up in the same global arms race" for AI technology and expertise. So intense was the drive for talent that one Microsoft executive compared the cost of acquiring an AI researcher to the cost of acquiring an NFL quarterback.  While some researchers, such as Mr. Hinton's former student Alex Krizhevsky, described their work in measured terms, most were expansive. Mr. Metz notes that there is a long tradition of AI researchers and tech leaders promising "lifelike technology that was nowhere close to actually working." Former Google chairman Eric Schmidt stands out for his "haughty," "patronizing" manner and habit of addressing audiences "as if he knew more than anyone else in the room, about both the past and the future."  This trait of living as if the future had already arrived, observes Mr. Metz, seems especially common among the Silicon Valley elite, who recognize that "ideas might **fail**. Predictions might not be met. But the next idea wouldn't succeed unless they, and everybody around them, believed that it could." To sell the future effectively, Mr. Metz's evangelists seem to suggest, you need first to inhabit it yourself.  Such hyperbole irks British AI researcher Michael Wooldridge, who aims, in "A Brief History of Artificial Intelligence" (Flatiron, 262 pages, $27.99), to provide a level-headed introduction to the evolution of the science. He dismisses what he calls the grand dream of AI -- "a computer that has the full range of intellectual capabilities that a person has" -- as "nothing more than speculation." He prefers to focus on what AI really tries to do: getting computers to perform specific tasks. We're guided through AI's tumultuous history as it careers wildly between periods of great hope and years of intellectual despair known as "AI winters."  The recent progress in deep learning opened up all sorts of possibilities and applications, Mr. Wooldridge says. "Everyone with data and a problem to solve started to ask whether deep learning might help them -- and in many cases, the answers proved to be 'yes.'" But overestimating the power of this technology, he reminds us, can be dangerous. He cites **Tesla**'s curiously named **Autopilot** -- a technology that allows AI to drive a car under human supervision. It has created a "mismatch between driver expectations and the reality of what the system can do," potentially endangering operators who place excessive faith in the still-evolving software.  For computer scientist and entrepreneur Erik Larson, the fundamental error we make when thinking about AI is **failing** to recognize that "human and machine intelligence are radically different." He notes that success at achieving narrow computer applications -- say, playing chess -- gets us "not one step closer to general intelligence." The sort of intelligence we display every day, he reminds us in "The Myth of Artificial Intelligence" (Belknap/Harvard, 312 pages, $29.95), is not "an algorithm running in our heads." Rather our minds call on "the entire cultural, historical, and social context within which we think and act in the world." It's critical, Mr. Larson argues, not to replace complex discussions "about individuals and societies" with tidy technological narratives and one-dimensional abstractions.  More broadly, Mr. Larson worries that we're making two mistakes at once, defining human intelligence down while overestimating what AI is likely to achieve. IBM's Watson computer is a case in point. We trumpet the AI it uses while overlooking the role of the engineering team's "careful and insightful game analysis." In the case of the "Jeopardy!" contest, part of the team's analysis led to an "exploitable shortcut": 95% of the answers to the show's questions are Wikipedia titles, dramatically constraining the universe of possible responses through which Watson had to sort.  By reinterpreting human intelligence to fit a computational definition, we risk abandoning a "richer understanding of the mind," Mr. Larson says. He invokes tech writer Jaron Lanier's lament that "a new generation has come of age with a reduced expectation of what a person can be, and of who each person might become." Another concern is learned passivity: our tendency to assume that AI will solve problems and our **failure**, as a result, to cultivate human ingenuity. "Computers don't have insights," Mr. Larson reminds us. "People do."  Kate Crawford, a communications researcher, is also worried about the role of AI systems. She sees them as "expressions of power that emerge from wider economic and political forces, created to increase profits and centralize control." Convinced that these forces have promulgated a false narrative, she seeks, in "Atlas of AI" (Yale, 327 pages, $28), to adjust the story.  Ms. Crawford argues passionately that while AI is presented as disembodied, objective and inevitable, it is material, biased and subject to our own outlooks and ideologies. The ecosystem of AI, she says, "relies on many kinds of extraction: from harvesting the data made from our daily activities and expressions, to depleting natural resources, and to exploiting labor around the globe." She describes "ghost work" -- the labor of anonymous, low-paid employees who do the repetitive tasks that "backstop claims of AI magic," such as labeling the images that are used to teach algorithms to recognize and distinguish objects.  The data sets by which artificial intelligence is "trained," Ms. Crawford says, are shot through with bias and error. One commonly used criminal database, she notes, included the names of 42 infants -- including 28 who allegedly admitted to "being gang members." More broadly, she laments the "collect-it-all mentality" -- the idea that "everything is data and is there for the taking." We measure what we can, she notes, not necessarily what we should. She counsels us to focus less on tech founders and investors and more on the "lived experiences of those who are disempowered, discriminated against, and harmed by AI systems."  in "Futureproof" (Random House, 217 pages, $27), New York Times technology writer Kevin Roose is focused on what individuals -- "people like you and me, with jobs and families and communities to worry about" -- can do about the ascent of AI and the threat of **automation**. While sharing many of Ms. Crawford's concerns, he also envisions AI as a force for good, helping to remediate poverty, reverse climate change and reduce the burden of disease.  The threat of AI to our jobs, Mr. Roose perceptively observes, isn't that we'll show up to work one day like TV's George Jetson and find Uniblab the robot sitting at our desk. The danger is more nuanced -- desirable innovations may cause slow-motion shifts in staffing. An airline's deployment of AI to improve aircraft maintenance might help the planes last longer, reducing demand for replacement jets -- and for the workers who would otherwise manufacture them. Similarly, software to improve the loading of trucks could reduce the number of trucks needed for the same amount of freight and thus trim the number of drivers. "We may want to stop worrying about killer droids and kamikaze drones," he writes, "and start worrying about the mundane, mediocre apps and services that allow companies to process payroll 20% more efficiently, or determine benefits eligibility with fewer human caseworkers." Another concern is AI at the level of middle management -- algorithms that methodically supervise tasks, monitor quality and evaluate performance, obviating the role (and expense) of human judgment.  We should lean into our humanity, Mr. Roose says, "leaving our own, distinctly human mark on the things we're creating." Job security, he suggests, depends less on what we do and more on how we do it.  Consider the example of the electronics retailer Best Buy, a company that a decade ago seemed to be circling the drain, unable to compete with Amazon on price. In 2012, Mr. Roose writes, the company hired a new CEO, Hubert Joly, who came up with a new strategy: compete on service. Best Buy started to focus on providing "deeply human experiences that e-commerce retailers . . . couldn't match." A home-adviser program, launched in 2017, was "an immediate hit." Today the stock is trading near an all-time high. The key insight, Mr. Joly told the author, was to recognize that the "business we're in is not simply selling products -- it's connecting human needs with technology solutions. So, our focus is on these human needs." He may be onto something.  ---  Dr. Shaywitz, a physician-scientist, is a digital health and connected fitness adviser and a lecturer at Harvard Medical School. |
| IN | i3302022 : Artificial Intelligence Technologies | itech : Technology |
| NS | gaiml : Artificial Intelligence/Machine Learning | gcsci : Computer Science | gbook : Books | nrvw : Reviews | gcat : Political/General News | gent : Arts/Entertainment | gsci : Sciences/Humanities | ncat : Content Types | nfact : Factiva Filters | nfce : C&E Exclusion Filter |
| RE | uk : United Kingdom | eurz : Europe | weurz : Western Europe |
| IPC | MMR | NND | BKK | REV |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020210522eh5m0001v |

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| HD | **Tesla** Owners Trick Their Vehicles Into **Self-Driving** |
| BY | By Katherine Bindley and Rebecca Elliott |
| WC | 935 words |
| PD | 21 May 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A1 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | **Tesla** Inc. Chief Executive Elon Musk for years has championed his vehicles' **driver-assistance** system called **Autopilot**, forecasting that **self-driving** cars are an emerging reality. Some would-be social-media stars and **Tesla** owners can't seem to wait.  Param Sharma, 25 years old, posted several videos to Instagram in which he appears to operate a **Tesla** while in the back seat with nobody at the wheel. Police in California arrested Mr. Sharma on May 10 for alleged reckless driving after an officer said he saw him operating a **Tesla** Model 3 from the back seat on a Bay Area highway. |
| TD | Similar videos abound on social media, even though **Tesla**'s technology is intended only as a way to assist drivers, who are instructed to keep their hands on the wheel. Echoing Mr. Musk's penchant for pushing the envelope, some **Tesla** drivers over the years created an online-video genre out of testing what is possible with their vehicles, in some cases appearing to override safety functions to perform stunts they post to YouTube or TikTok.  One TikTok user shared a video last year that appeared to depict a **Tesla** going more than 60 miles an hour on a highway with no one in the driver's seat while its passengers drank hard seltzer and sang along to Justin Bieber. The video, which refers to the car as the designated driver, has 1.7 million likes. The video's poster didn't respond to requests for comment.  **Tesla**'s **Autopilot** has features designed to make hands-on driving easier and safer by helping with tasks such as steering and maintaining appropriate distance from others on the road. The company tells drivers repeatedly in its user manuals to remain engaged.  **Tesla**'s public messaging has at times appeared inconsistent with those instructions. A 2019 video the company posted to YouTube shows a **Tesla** operating for well over a minute with the driver's hands not on the wheel. Mr. Musk drove a **Tesla** hands-free in a 2018 "60 Minutes" interview.  "I'm highly confident the car will be able to drive itself with a reliability in excess of humans this year," he said in January.  Mr. Sharma, the **Tesla** driver recently arrested, said he was inspired by Mr. Musk. He said he regularly operates his vehicle from the back seat, occasionally touching the steering wheel with his foot to keep the vehicle from coming to a stop. A representative for the local district attorney said this week no decision had been made on whether to formally charge Mr. Sharma.  "If Elon Musk is right about **self-driving** cars, then what I'm doing, like by next year, it'll be normal," said Mr. Sharma, adding that he doesn't view the behavior as risky because of his perception of the vehicle's capabilities.  **Tesla** and Mr. Musk didn't respond to requests for comment. **Tesla** has repeatedly said the features it offers make driving safer. Last month, Mr. Musk tweeted "**Tesla** with **Autopilot** engaged now approaching 10 times lower chance of **accident** than average vehicle."  The National Transportation Safety Board and safety advocates have said **Tesla** isn't doing enough to prevent misuse. The California Department of Motor Vehicles said Monday it was reviewing whether **Tesla** violated a state regulation that bars companies from falsely advertising vehicles as autonomous.  **Tesla** vehicles are designed to monitor force applied to the steering wheel to ensure driver engagement, but people have found ways to trick aspects of the system. Last month, Consumer Reports rigged a **Tesla** Model Y to operate on **Autopilot** while no one was in the driver's seat by attaching a weighted chain to the wheel. (The person slid into the passenger's seat without opening a door, which would have shut off the assistance system.)  Christopher Allessi, a YouTuber, said he has made around 2,000 videos "testing and pushing the limits of **Tesla** vehicles." In one video, Mr. Alessi reviewed a so-called defeat device that can cost $180 and is intended to trick the system into believing the driver's hands are on the wheel. He calls reminders to clutch the wheel a "pain in the butt" and said the car's alerts can come on when the driver's hands rest on the wheel too lightly. In the video, he shows how to use the device to stop that from happening. He does urge drivers to maintain their hands on the wheel. "If you're someone that's going to abuse it and read a book or go through your daily emails, no, you need to get your license taken away," he said.  Other YouTubers show viewers how to get around the alerts. They post videos demonstrating tricks like wedging an orange in the steering wheel or attaching a weight so the system thinks someone is touching the wheel.  Tyron Louw, a senior research fellow at the University of Leeds who studies how humans interact with automated driving systems, said people have a hard time understanding the limits of advanced **driver-assistance** features. Some of the videos of seeming misuse, he said, could lead to copycat behavior with unintended consequences. "People are impressionable," Dr. Louw said. While owners bear responsibility for their choices, it is on **Tesla** to prevent misuse in the first place, he said.  "If they know that their system is prone to hacks, then like with software engineering, they need to figure out when hacks are invading their system," Dr. Louw said. |
| CO | teslmi : Tesla, Inc. |
| IN | i35101 : Passenger Cars | iaut : Automotive | i351 : Motor Vehicles | i35104 : Alternative Fuel Vehicles |
| NS | gcar : Cars | gcele : Celebrities | neqac : Equities Asset Class News | npag : Page One Stories | reqrau : Suggested Reading Automobiles | gcat : Political/General News | glife : Living/Lifestyle | ncat : Content Types | nfact : Factiva Filters | redit : Selection of Top Stories/Trends/Analysis | reqr : Suggested Reading Industry News |
| RE | usca : California | usa : United States | namz : North America | usw : Western U.S. |
| IPC | ABO | AEQI | SGN | AUTO | NND | PGO |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020210521eh5l0001n |

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| HD | Man Charged With Driving in Backseat |
| BY | By Rebecca Elliott |
| WC | 340 words |
| PD | 13 May 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | B2 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | Police in California arrested the driver of a **Tesla** for allegedly operating the vehicle from the backseat.  The California Highway Patrol on Tuesday said it had arrested 25-year-old Param Sharma for reckless driving of a **Tesla** Inc. Model 3 on Interstate 80 in the Bay Area.Mr. Sharma couldn't be reached for comment. |
| TD | Police said they had received 911 calls about the driver. The officer in the arrest that took place Monday saw the driver, the lone occupant of the car, seated in the backseat, police said. Mr. Sharma moved to the driver's seat and stopped the car on the shoulder of the interstate, where he was arrested, the police said.  Mr. Sharma was charged with two counts of reckless driving and disobeying an officer. He also was cited with using his vehicle in a reckless manner in April, the police said.  The incident is the latest to raise questions about how some **Tesla** drivers use their vehicles, including the advanced **driver-assistance** features the company offers.  **Tesla** has said the **driver-assistance** system it calls **Autopilot** makes operating its vehicles safer. The company didn't immediately respond to a request for comment.  The National Transportation Safety Board, which has the power to issue safety recommendations, has previously expressed concerns that there aren't clear rules in the U.S. about how companies should ensure drivers pay attention when **driver-assistance** features are engaged.  **Tesla** has said drivers using **Autopilot** must remain attentive with their hands on the wheel and that it has safety features to remind them to stay engaged.  A fatal **crash** last month in Texas drew widespread attention after local authorities said they found one occupant in the back seat and the other in the front passenger's seat, raising questions about whether or how the vehicle could have been operating without anyone in the driver's seat. The NTSB this week raised doubts the **Autopilot** system was involved, echoing earlier statements from **Tesla**. |
| CO | teslmi : Tesla, Inc. |
| IN | i35101 : Passenger Cars | i351 : Motor Vehicles | iaut : Automotive | i35104 : Alternative Fuel Vehicles |
| NS | gtrff : Traffic Violations | gcrim : Crime/Legal Action | neqac : Equities Asset Class News | gcat : Political/General News | gtrans : Transport | ncat : Content Types | nfact : Factiva Filters |
| RE | usa : United States | usca : California | usw : Western U.S. | namz : North America |
| IPC | ABO | AEQI | SGN | NTS | USG | AUTO | NND | BAF |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020210513eh5d00027 |

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| **24**CLM | Business & Finance |
| SE | What's News |
| HD | Business & Finance |
| WC | 227 words |
| PD | 11 May 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A1 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | The cyberattack that forced the closure of the top U.S. fuel pipeline threatens to disrupt gasoline supplies for millions, as the conduit's owner estimated it would take at least through week's end to restore service.  --- |
| TD | European governments are acting to limit hedge funds' participation in the market for new sovereign-bond issuance after a surge in demand from the firms.  ---  Marriott swung to a loss for the first quarter, but the hotel company pointed to rising demand in the U.S. and Canada.  ---  The NTSB raised doubts that a fatal April **crash** of a **Tesla** car in Texas involved the vehicle's advanced **driver-assistance** system.  ---  Elliott has a stake in Duke Energy and is pushing the utility to add directors and possibly take other actions to boost its stock price.  ---  Startup mortgage lender Better is planning to go public through a merger with a special-purpose acquisition company.  ---  The S&P 500, Nasdaq and Dow retreated 1%, 2.5% and 0.1%, respectively, as technology and other growth stocks tumbled.  ---  Vice Media 's plans to go public through a nearly $3 billion SPAC deal would leave existing investors with control of the firm.  ---  NBC said it wouldn't broadcast the Golden Globes next year, a move that comes as the organization that oversees the event has drawn fire. |
| CO | ntsbd : National Transportation Safety Board |
| NS | ccat : Corporate/Industrial News | ncdig : Corporate Digests | ncolu : Columns | npag : Page One Stories | ncat : Content Types |
| RE | usa : United States | namz : North America |
| IPC | NND | TPX | BZF | PGO |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020210511eh5b0001z |

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| HD | **Tesla**'s **Autopilot** As Factor In **Crash** In Doubt |
| BY | By Rebecca Elliott |
| WC | 607 words |
| PD | 11 May 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | B1 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | Federal safety officials have raised doubts that a fatal April **crash** of a **Tesla** Inc. car involved the vehicle's advanced **driver-assistance** system.  The National Transportation Safety Board issued a preliminary report Monday that laid out some of the early evidence it has gathered, while stopping short of drawing conclusions about what caused the **crash**. |
| TD | Tests at the **crash** site north of Houston using a representative vehicle showed that one of the features that would have been needed to use **Tesla**'s **driver-assistance** system, known as **Autopilot**, wasn't available in that area, the agency said.  Local officials in Texas had said that one of the two men riding in the car was found in the front passenger's seat and the other in the back seat.  The local constable's office said, based on its early investigation, that it was highly likely the vehicle didn't have anyone in the driver's seat at the time of the **crash**, spurring questions about how that may have unfolded. The early assessment left questions about whether or how the vehicle could have been operating without anyone in the driver's seat. Both men died in the **crash**.  The NTSB said the vehicle owner's home-security system showed the owner entering the driver's seat of the Model S sedan and the other person entering the front passenger's seat.  The NTSB report didn't address when the owner eventually found dead in the back seat moved within the vehicle.  The vehicle traveled about 550 feet before driving over a curb, hitting a drainage culvert, a raised manhole and, eventually, a tree, damaging the front of the vehicle's lithium-ion battery case, the NTSB said.  The agency said that the resulting fire destroyed the vehicle and damaged a module that can record data tied to information such as vehicle speed, air-bag deployment and whether seat belts were buckled. The NTSB said it had taken the device to a lab for further analysis.  Another onboard storage device that could yield clues about what happened was destroyed by the fire, the NTSB said.  The initial report echoes statements from **Tesla** last month about the **crash**. A **Tesla** executive said during an earnings call that the company had conducted a study along with authorities in which it tried to replicate the likely **crash** scenario. The company said that a **driver-assistance** feature that helps with steering didn't engage in the test, while another feature, adaptive cruise control, only activated when a driver was buckled in and traveling at above 5 miles per hour.  The executive also said the car's steering wheel was found to be deformed, "leading to the likelihood that someone was in the driver's seat at the time of the **crash**." He didn't provide details about how the company came to that conclusion. All the seat belts, post **crash**, were found to be unbuckled, he said.  **Tesla** didn't immediately respond to a request for comment on the NTSB's preliminary report. Soon after the **crash**, **Tesla** Chief Executive Elon Musk tweeted, "Data logs recovered so far show **Autopilot** was not enabled."  The NTSB said it was continuing to collect data on the **crash**, including the dynamics of the incident and the postmortem toxicology test results.  "All aspects of the **crash** remain under investigation," it said, adding it planned to issue a final report with safety recommendations to prevent similar **crashes**.  The NTSB has said its probe also would examine the vehicle fire that took hours to completely extinguish. |
| CO | ntsbd : National Transportation Safety Board | teslmi : Tesla, Inc. |
| IN | i35101 : Passenger Cars | i351 : Motor Vehicles | iaut : Automotive | i35104 : Alternative Fuel Vehicles |
| NS | gmmdis : Accidents/Man-made Disasters | gdis : Disasters/Accidents | gtacc : Transport Accidents | neqac : Equities Asset Class News | gcat : Political/General News | gtrans : Transport | ncat : Content Types | nfact : Factiva Filters |
| RE | usa : United States | namz : North America |
| IPC | ABO | AEQI | SGN | NTS | USG | AUTO | NND | BAF | SFR | TPT |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020210511eh5b0001w |

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| HD | U.S. News: Senators Urge **Tesla** Scrutiny |
| BY | By Rebecca Elliott |
| WC | 672 words |
| PD | 23 April 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A6 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | Two U.S. senators have expressed concern about what they said may be an emerging pattern of safety concerns involving **Tesla** Inc. vehicles in the wake of a fatal **crash** in Texas.  In a letter Thursday to America's top automotive-safety regulator, Sen. Richard Blumenthal of Connecticut and Sen. Ed Markey of Massachusetts urged the agency to develop recommendations for improving advanced **driver-assistance** systems such as **Tesla**'s **Autopilot**. |
| TD | The National Highway Traffic Safety Administration has opened a probe into the weekend **crash**, one of more than two dozen investigations into **Tesla**-involved **crashes**. The agency has said that most of those investigations are related to the vehicles' advanced **driver-assistance** features.  "We fear safety concerns involving these vehicles are becoming a pattern, which is incredibly worrisome and deserves your undivided attention," the Democratic senators wrote about **Tesla** in the letter.  A Saturday **crash** involving a **Tesla** Model S has increased scrutiny of the car maker's advanced **driver-assistance** system, known as **Autopilot**, because the local constable has said that he believed no one was in the driver's seat at the time of the incident. One of the two men who died in the **crash** in a suburban neighborhood north of Houston was found in the front passenger's seat, the other in the back seat, local officials have said.  **Tesla** Chief Executive Elon Musk said Monday that data recovered so far showed **Autopilot** wasn't enabled. He didn't specify whether that meant at the time of the **crash** or at any time during the preceding drive. **Tesla** didn't respond to requests seeking clarification.  NHTSA said that it had received the letter and would review it.  Rep. Kevin Brady (R., Texas), who represents the area where the **crash** took place, on Thursday joined the growing chorus of lawmakers seeking more information.  "I support progress that's being made and the development of new technologies for autonomous and semi-autonomous vehicles, but we need answers to what happened," Mr. Brady, the top Republican member on the House Ways and Means Committee, said on a call with reporters.  Another federal organization, the National Transportation Safety Board, also has launched an investigation into the incident. The board, which has the power to issue safety recommendations, has said its review will focus on both the operation of the vehicle and the post-**crash** fire, which local officials have said took hours to extinguish. Batteries used in electric vehicles can reignite after initial flames are put out, as this one did, said Palmer Buck, chief of The Woodlands Fire Department, which responded to the incident.  The senators' letter speaks to a tension that regulators face with **driver-assistance** features such as collision warning or adaptive cruise control. The technology can help make driving safer but introduces new risks.  **Tesla** says that driving with **Autopilot** enabled is safer than driving without it. Hours before the Saturday **crash**, Mr. Musk tweeted: "**Tesla** with **Autopilot** engaged now approaching 10 times lower chance of **accident** than average vehicle."  NHTSA doesn't have any rules in place specifying how companies must go about ensuring that drivers are paying attention while **driver-assistance** systems are engaged. The NTSB has said that lack of regulation puts people at risk.  The Texas **crash** has left questions about whether or how the vehicle could have been operating without anyone in the driver's seat.  **Tesla** has said that drivers using **Autopilot** must remain attentive with their hands on the wheel and that it has safety features, including aural and visual alerts, to remind them to stay engaged.  Consumer Reports on Thursday said it had done tests this week in which it was able to get a different **Tesla** model's **Autopilot** to operate without anyone in the driver's seat. The vehicle didn't send any warnings about an empty driver's seat, Consumer Reports said.  **Tesla** didn't respond to a request for comment on the Consumer Reports finding. |
| CO | teslmi : Tesla, Inc. |
| IN | i35101 : Passenger Cars | itsp : Transportation/Logistics | i351 : Motor Vehicles | iaut : Automotive | i35104 : Alternative Fuel Vehicles |
| NS | gmmdis : Accidents/Man-made Disasters | gtacc : Transport Accidents | gdis : Disasters/Accidents | c13 : Regulation/Government Policy | c41 : Management | gpol : Domestic Politics | gvcng : Legislative Branch | neqac : Equities Asset Class News | ccat : Corporate/Industrial News | gcat : Political/General News | gpir : Politics/International Relations | gtrans : Transport | gvbod : Government Bodies | ncat : Content Types | nfact : Factiva Filters | nfcpin : C&E Industry News Filter |
| RE | usa : United States | usct : Connecticut | usma : Massachusetts | ustx : Texas | namz : North America | use : Northeast U.S. | usnew : New England | uss : Southern U.S. |
| IPC | ABO | AEQI | SGN | CNG | NTS | USG | AUTO | NND | USN |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020210423eh4n00012 |

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| HD | Artificial Intelligence (A Special Report) --- Mental Roadblocks to Driverless Cars |
| BY | By Iyad Rahwan and Azim Shariff |
| WC | 906 words |
| PD | 7 April 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | R1 |
| LA | English |
| CY | Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | As we get ever closer to the era of driverless cars, a key question looms: How safe should autonomous vehicles be before we allow them on the road in large numbers?  The National Highway Traffic Safety Administration recently disclosed that it has opened 27 investigations into **crashes** of **Tesla** vehicles, and that four have been completed. Some of those investigations are related to the company's **Autopilot driver-assistance** system. **Tesla** didn't respond to requests for comment for this article. |
| TD | Although AV technology promises numerous benefits, concerns over safety and trust have become the defining issue. The industry recognizes this. "People are ready to embrace new vehicle technology, especially if it will make driving safer," said Greg Brannon, AAA's director of automotive engineering and industry relations, upon the release of results from its latest public-opinion survey in February. As the technology improves, AVs promise extraordinary safety benefits. A 90% reduction in traffic fatalities -- cited in a 2015 report from McKinsey -- is the most frequently repeated figure.  But these promises are many years, if not decades, from being realized. The challenging part is how to get from here to there. A reasonable timeline for when AVs should be rolled out en masse is when they are at least as safe as the average driver. Then not only would we reap their economic and social benefits, but we would also be saving lives. And importantly, we would rapidly begin to accumulate the data needed to drive AV safety levels up even further.  Unfortunately, the broad acceptance of just-better-than-average AVs may be undermined by a host of psychological biases in the minds of consumers. We investigated two of these biases in an article we published on March 15. We asked a representative group of Americans how much safer AVs would have to be, compared with human drivers, for them to be willing to ride in such cars.  If AVs were to eliminate 10% of today's **accidents**, thus being substantially safer than the average human, only 11% of people would be willing to adopt them. Even if AVs caused **accidents** at half the rate of human drivers, only 37% of Americans would opt in. To make matters worse, about 15% of people would need AVs to have a perfect safety record before they opt in. What might cause such inflated safety demands from AVs? We identify two primary reasons.  First, there's overconfidence. In our study, the majority of respondents thought if everyone drove as they did, 66% of **accidents** would be eliminated. And the higher people rated their own driving safety, the safer they wanted AVs to be before they were willing to adopt them.  In addition, we found evidence for a phenomenon called "algorithm aversion." It refers to the reluctance of humans to use superior but imperfect algorithms. Our study participants showed more aversion to riding with AVs than to riding with a human driver, even if these two modes of transportation were equally safe.  Is there anything we can do to reduce people's excessive expectations for AV safety? We tried a de-biasing technique designed to help people recognize their tendency to inflate their own driving skills. Interestingly, this intervention succeeded in reducing people's assessment of their own driving skills, though not completely: People now only thought they were, on average, in the 60th percentile of drivers. Unfortunately, however, they didn't budge when it came to how safe they wanted AVs to be. This suggests that people's safety requirements for AVs may be particularly sticky, and more research is needed to find ways to calibrate them.  This leaves decisions about safety thresholds for AVs in a difficult spot. A 2017 Rand Corp.studyillustrated the consequences of an excessive safety threshold by simulating 500 possible future scenarios. In almost all scenarios, if we wait for AVs to be 90% (rather than 10%) safer than the average human driver, we risk **failing** to save thousands, if not hundreds of thousands, of lives in the long term that could be lost while we perfect AV technology.  However, what we show is that if regulators were to allow the broad deployment of 10%-safer AVs, psychological biases could interfere with large-scale adoption and thus prove to be a substantial public health hazard insofar as they prolong the era of relatively dangerous human driving.  Focusing the discussion too much on safety may be one of the problems.Before the pandemic, the average American spent over 52 minutes a day commuting -- time psychologists have found is the least happy part of their day. AVs promise to give us that time back -- for working, for sleeping, for all sorts of activities. While safety should always be the priority of the AV industry, perhaps the communication about AVs should focus more on these other benefits.  ---  Dr. Rahwan is a director of the Max Planck Institute for Human Development in Berlin. Dr. Shariff is an associate professor and Canada 150 research chair in moral psychology at the University of British Columbia in Vancouver. Jean-Francois Bonnefon, a research director at the Toulouse School of Economics in France and the former president of the European Commission independent expert group on the ethics of driverless mobility, also contributed to this article. They can be reached at reports@wsj.com |
| IN | i35101 : Passenger Cars | iaut : Automotive | i351 : Motor Vehicles |
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| HD | VW Struggles To Catch **Tesla** --- German auto maker's $50 billion bet on electric vehicles hits software speed bump |
| BY | By William Boston |
| WC | 2122 words |
| PD | 20 January 2021 |
| SN | The Wall Street Journal |
| SC | J |
| PG | A1 |
| LA | English |
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| LP | ZWICKAU, Germany -- Five years and nearly $50 billion into the auto industry's biggest bet on electric vehicles, Volkswagen CEO Herbert Diess and his guest, Chancellor Angela Merkel, stood in anticipation as the first ID.3, Germany's long-awaited answer to **Tesla**, rolled off the assembly line.  The event at the company's flagship EV plant just over a year ago marked a "systemic shift from the combustion engine to the electric vehicle," said Thomas Ulbrich, leader of the ID.3 effort. |
| TD | The car, however, didn't work as advertised.  It could drive, turn corners and stop on a dime. But the fancy technology features VW had promised were either absent or broken. The company's programmers hadn't yet figured out how to update the car's software remotely. Its futuristic head-up display that was supposed to flash speed, directions and other data onto the windshield didn't function. Early owners began reporting hundreds of other software bugs.  After years of development, Volkswagen decided in June last year to delay the launch and sell the first batch of cars without a full array of software, pending a future update, which is now scheduled for mid-February. Tens of thousands of ID.3 owners will have to bring their cars in for service to have the new software installed.  "After that the software will be regularly updated over the air," Mr. Ulbrich said in an interview.  Volkswagen, the world's largest car maker, has outspent all rivals in a global bid by auto incumbents to beat **Tesla**. For years, industry leaders and analysts pointed to the German company as evidence that, once unleashed, the old guard's raw financial power paired with decades of engineering excellence would make short work of Elon Musk's scrappy startup.  What they didn't consider: Electric vehicles are more about software than hardware. And producing exquisitely engineered gas-powered cars doesn't translate into coding savvy.  The ID.3 debacle is raising the temperature at Volkswagen. Mr. Diess nearly lost his job last year amid a revolt of Germany's powerful IG Metall labor union and shareholder anger over the botched launch of the Golf-8, the VW brand's breadwinner, and the bungled launch of the ID.3. He was stripped of his leadership of the VW brand, VW's biggest business, but kept on as CEO of the entire company without day-to-day operational responsibility.  The ID.3 is gaining traction, outselling **Tesla**'s Model 3 in Europe in December, according to Jato Dynamics, with sales fueled by a price tag that is about $12,000 less than **Tesla**'s model, and by Germany's decision last year to increase incentives for EV purchases. The ID.3 has also garnered negative trade-press reviews and is still missing key features.  Ever since **Tesla** launched its first car in 2008 "there was this feeling that the really serious players are going to come," said Peter Rawlinson, CEO of electric car startup Lucid Technologies and the former chief engineer of **Tesla**'s Model S. Now, he says, "the Germans have finally come, and they're not as good as **Tesla**."  Other legacy car manufacturers including General Motors, Ford, Renault, Peugeot and Toyota are bringing new electric models to market this year. **Failure** to keep up could redraw the global auto map, costing German car makers -- Volkswagen, BMW and Daimler -- their leadership status in high-end products.  Mr. Diess is drawing lessons from the mistakes on the ID.3 project as he overhauls the company's software effort to prepare for a successor model, dubbed ID.4, which goes on sale in the U.S. later this year and will be produced at first in Europe and China and next year in Chattanooga, Tenn., as well. VW says the ID.4, its first all-electric car to be sold world-wide, will deliver on its predecessor's promises.  "In order to be successful in this new world and secure the prosperity of many people . . . VW must completely change," Mr. Diess wrote in a recent LinkedIn post.  When Mr. Diess, then head of the VW brand, launched his first EV effort five years ago, he asked Fredmund Malik, an Austrian economist, to hold a "syntegration workshop" for senior brand executives. The goal, Prof. Malik said, was to persuade managers lulled into complacency by their company's high profitability that **Tesla** represented an existential threat.  A second workshop was held a month later, after VW was exposed for cheating on diesel emissions. Mr. Diess wanted to use the jolt of the crisis to overcome internal opposition to electric vehicles, Prof. Malik said. It was at this meeting that VW decided to build what would become the ID.3, complete with custom software to run the vehicle and in-car apps.  Software has been running in gas-powered cars for years. An average passenger vehicle typically includes about 80 parts fitted with chips that perform discrete tasks. These chips run code that remains static over a car's lifetime.  With the shift to electric, computing has become the heart of the vehicle, with a central processor managing the battery, running the electric motors, brakes, lights and other critical systems as well as additional features such as entertainment or heating in the seats. Just like a gas-powered car should be serviced regularly, a modern electric vehicle may receive software updates to improve safety and performance, offer new in-car services, or unlock sources of revenue for the manufacturer.  "The key here is taking this distributed system in the car, dozens if not hundreds of applications, and centralizing everything," says Danny Shapiro, senior director of automotive at Nvidia Corp., the graphics chip maker that has become a player in **self-driving** car technology. "This is very complex, especially with a car where the safety level is critical. You can't just flip a switch and be a software company."  In the early years of the ID.3 effort, the task to code software for the car was scattered across the organization. VW's appointment of Christian Senger, previously head of digital services and electric mobility products, as leader of VW's entire software development, came only in 2019, months before the vehicle's planned launch.  The group's first task was to create a coherent organization out of the thousands of programmers spread around the group and begin to shift critical development in-house. The first major project was VW.os, an operating system for ICAS1, the car's central computer that could be updated remotely.  Another source of complexity was that VW picked different vendors to develop different parts of its software ecosystem. To build its industrial cloud for factories, VW teamed up with Amazon Web Services. For the automotive cloud connecting its cars, it joined with Microsoft Corp. And to build ICAS1, VW turned to Continental AG, the lead partner in a team of 19 suppliers working on developing the system.  Typically, car makers order finished components from suppliers and install them in the vehicle on the assembly line. But the software for a connected car is never finished. Like an iPhone, it is constantly evolving and requires the supplier and customer to work interactively, something that VW and Continental first had to learn as the ICAS project was under way.  VW and its suppliers had to adopt new ways of working together to build the ICAS and connect the ID.3 to the cloud. They created integrated teams that met in workshops at regular intervals to assess the state of play and plot out the next steps. During these workshops, VW often placed new demands on the group as its requirements of the ID.3 evolved, Mr. Ulbrich said.  "The iPhone today is not the same product it was in the beginning. It has evolved, it is an evolutionary process. And that is the process that VW is going through now," Mr. Ulbrich said.  The experience convinced Mr. Diess that he needed to reboot VW's software business. In April, he brought back Prof. Malik for a three-day workshop with about 40 of his top executives. Prof. Malik said Mr. Diess posed a simple question for the group: What do we have to do to catch up with **Tesla** by 2024?  The CEO opened the gathering with a blistering critique of VW's progress. He showed a slide comparing the ID.3 to the **Tesla** Model 3, pointing out that while VW's car excelled in old-world features such as spaciousness and design, **Tesla** beat VW hands down on such metrics as battery range and advanced computing.  At the end of the workshop, the management team had the outlines of a reboot. It would produce a new fully electric and largely **self-driving** car by 2025, shift more resources from the company's old business to EVs and digitization, expand battery manufacturing, and explore new revenue streams and payment systems.  As the summer 2020 launch date for the ID.3 approached, VW told Continental to focus on critical functions. By then, Mr. Ulbrich and senior VW executives concluded that the ID.3's remote updates weren't yet secure enough to go on the road, Mr. Ulbrich said. The updates not only changed apps and kept the navigation up-to-date, they also made changes to core functions such as the electric powertrain.  "In mid-2020 we had to make the decision that we would have to ask the first 50,000 vehicles to come to the service stations for an update," Mr. Ulbrich said. "Updating the vehicle's core software is a complex process and we have to make sure at any time that our vehicles are safe."  VW didn't make Mr. Senger available for comment.  Karsten Michels, the senior Continental engineer working on the project, said the main problem was the teams simply ran out of time. "Maybe we underestimated how much work is involved and how little we could actually rely on existing legacy software," Mr. Michels said in an interview.  Mr. Diess restructured the software development teams. He tapped Audi CEO Markus Duesmann, poached earlier from BMW, to be VW's new software czar.  Mr. Diess also reached outside VW for help. He asked Dirk Hilgenberg, a BMW executive and IT specialist focused on tech turnarounds, if he would replace Mr. Senger as head of the software division.  Mr. Hilgenberg said he had no hesitation. He had spent 28 years at BMW and his track record most recently included turning around production of BMW's X-series SUV in Spartanburg, SC. In recent years, however, he said he had become frustrated by the Munich-based auto maker's reluctance to dive headlong into electric cars.  BMW declined to comment.  "I'd been watching what Diess was doing in terms of turnaround at VW," he said. "I really liked it because it was decisive, bold, consistent. I've seen nothing in the auto industry that even comes close to that."  Mr. Hilgenberg's first day at VW was August 1 and he immediately started work on fixing VW.os. The first version, 1.0, is a blend of open source software and custom code by Continental and VW. To fix the current glitches, VW said it would publish an update of the software, version 1.1, in February. A more advanced version -- VW.os 2.0 -- is targeted for 2024 and will include advanced **self-driving** car features.  VW's goal is to eventually build at least 60% of automotive software in-house.  The biggest challenge, said Mr. Hilgenberg, isn't the technology, it is the mind-set of the people -- their reluctance to embrace radical change until circumstances force them to.  "In the middle of success it's not easy to understand why you need to change now," he says.  Another component of the reboot was the Artemis project, a new in-house design team that would take the software developed by Mr. Hilgenberg's group and integrate it in a new electric, **self-driving**, and internet-connected vehicle within three years.  "We fairly quickly came to the conclusion that we needed a separate unit and needed to give it the freedom to develop, a bit like a rocket," said Alexander Hitzinger, a Porsche and Apple veteran who presented the idea to the meeting.  Change is coming, Mr. Diess wrote on his LinkedIn page, and VW must move faster. "The global transformation of the industry will take roughly 10 years," he wrote. "With or without Volkswagen." |
| CO | bmw : Bayerische Motoren Werke AG | teslmi : Tesla, Inc. | vlkwag : Volkswagen AG |
| IN | i35104 : Alternative Fuel Vehicles | iaut : Automotive | i330202 : Software | i35101 : Passenger Cars | iadrive : Autonomous Driving Technologies | i3302 : Computers/Consumer Electronics | i351 : Motor Vehicles | icomp : Computing | itech : Technology |
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| HD | Volkswagen Cuts CEO's Responsibility --- After missteps with car launches, Diess will no longer lead namesake brand |
| BY | By William Boston |
| WC | 661 words |
| PD | 9 June 2020 |
| SN | The Wall Street Journal |
| SC | J |
| PG | B1 |
| LA | English |
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| LP | BERLIN -- Volkswagen AG is shuffling the management of its namesake VW brand in a response to the botched launch of the latest Golf, the company's top-selling model, and persistent troubles readying the new all-electric ID-3 set to go on sale this summer.  The company said Monday that Herbert Diess, chief executive of the Volkswagen company that includes the VW, Audi, Porsche, Lamborghini and Bentley brands, would give up his role as chief of the VW brand. Ralf Brandstatter, currently No. 2 at the VW brand division, will become CEO of the division on July 1 while Mr. Diess will focus on steering the group. |
| TD | Mr. Diess, a former BMW AG executive who joined VW in 2015 and became CEO of the entire Volkswagen company in 2018 in addition to his role as CEO of the brand, "will now have more freedom for his tasks as group chief," Volkswagen said.  The move, which could weaken Mr. Diess's influence over the day-to-day operations of Volkswagen's largest single division, comes after he faced mounting criticism from labor leaders, who have 10 seats on the 20-person board of directors, in recent weeks.  Mr. Diess's job as CEO doesn't appear to be threatened, but people familiar with the situation said he needs to improve his frosty relationship with top labor leaders and fix problems that have plagued the launches of the company's two most important products.  "Diess still enjoys the solid backing of the shareholder representatives on the board, but he needs to get VW's problems under control," one of the people said.  Mr. Diess has pursued aggressive cost cuts while also making a big bet on electric vehicles in an effort to rebuild the group into the world's leading maker of full-electric cars, overtaking the upstart **Tesla** Inc.  He has been operating in a brutal environment. Global demand for cars dipped last year and was hit again with the coronavirus pandemic, which also disrupted supply chains, forcing the company to close its plants for weeks.  Last week, Germany adopted a giant 130 billion euros ($146.8 billion) stimulus package but didn't endorse a cash-for-clunkers incentive to encourage the purchase of combustion-engine vehicles -- a setback for the once influential industry, which had been clamoring for the measure.  Volkswagen also has struggled with its ID-3 and the eighth generation of the Golf. The cars have experienced glitches in the complex software needed for **driver-assistance** features connected to the internet.  Golf sales have been weak and some of the ID-3's basic software features still don't work, causing concern among Volkswagen shareholders and senior labor leaders over the effect on the bottom line.  In addition to the technical snafus, Volkswagen's image suffered after it recently published an embarrassing marketing video on social media aimed at boosting Golf sales, raising questions about managers' judgment. The short film showing a giant white hand pushing aside a black character to let a Golf drive through the frame has drawn criticism of racism and forced the company to apologize and withdraw the ad.  Volkswagen's compliance department is reviewing the incident, which is expected to be discussed at a meeting of the management board under Mr. Diess's leadership on Tuesday, the people familiar with the situation said.  The snowballing of technical troubles and reputational damage facing the company in recent weeks ignited an outcry from labor leaders, who put the issue on the agenda of the May board meeting.  The confrontation at the board meeting came after the company's union shop stewards published an open letter criticizing Mr. Diess and management for what they saw as the **failed** launch of the Golf and troubles with the company's electric-vehicle development, which they said threatened jobs. |
| CO | bmw : Bayerische Motoren Werke AG | vlkwag : Volkswagen AG |
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| HD | OFF DUTY --- The Sleep Issue: Gear & Gadgets -- Rumble Seat: Snoozing in **Self-Driving** Cars? It's No Pipe Dream |
| BY | By Dan Neil |
| WC | 1331 words |
| PD | 28 March 2020 |
| SN | The Wall Street Journal |
| SC | J |
| PG | D13 |
| LA | English |
| CY | Copyright 2020 Dow Jones & Company, Inc. All Rights Reserved. |
| LP | 39. Have you seen the video of the guy sound asleep at the wheel of his auto-piloted **Tesla** Model S? Mile after mile, with his head back, mouth open like he's having his teeth cleaned. I envy him.  I've never been able to sleep in a moving motor vehicle -- far as I can tell, no one really does. "It depends on your definition of sleep," wrote Dr. Robert Pascuzzi, Chair of Neurology at Indiana University School of Medicine. "Not all sleep is the same and if you can't get slow-wave sleep then it's basically sleep deprivation." |
| TD | And yet, at a time when most jet travel is grounded, our fly-catching friend in the video suggests a fascinating possibility: Vehicle autonomy could give rise to a class of high-speed, long-distance, overnight personal transportation. Such vehicles/services could provide an alternative to continental, internodal air travel, either commercial or civil -- what the Germans would call Schlaffenwagens.  Imagine not seats but berths, with comfy blankets and pillows, blackout shades and ambient active noise canceling. These teardrop-shaped machines (no windshield) would ride on large pneumatic springs, augmented with fully active and dynamic e-suspension, oscillating like an audio speaker to cancel vertical suspension energies. They could afford to be heavier than ordinary cars, with the structure tuned to enhance the mass-damping effect. Mercedes-Benz showed just such a vehicle at the 2015 CES: the F 015, a big steel cloud on wheels.  These vehicles would have to be electric, for many good reasons, the first of which is packaging: A vehicle design allowing occupants to stretch out calls for a flat, open floor plan, typical of EV skateboards. Second is electric propulsion's wins in noise, vibration and harshness. (You say you need the thrum of an IC engine to sleep by? They can artificially generate that for you. Just take your soma, Boomer.) Instead of chasing fleeting experientials like maximal lateral grip and acceleration, the platform engineers would optimize for silence, stillness and fineness. Third, an EV design's inherently low center of gravity would reduce body roll, improving passenger comfort.  Lastly, range: The kind of battery-energy density auto makers are shooting for now -- on the order of 500 Wh per kg -- will make it fairly easy for sleeper cars to cruise at a whispering 200 kmh and have a range 2,000 km. In this age of enlightenment I'm hoping we will have also embraced the metric system.  All of the above is within reach of science and engineering. But our bodies might need an OS upgrade.  "We don't really know if people can actually sleep in moving cars," said Dr. Mikael Ljung Aust, a psychologist and researcher with Volvo Cars Safety Centre in Gothenburg, Sweden. "They can sleep on trains, and planes, and on ships. . . . They fall asleep all the time in the simulator."  In 2018 Volvo Cars revealed its 360c, an autonomous concept with four different interior themes, including "Sleep" with a lay-flat bed.  But sleeping, Dr. Ljung Aust noted, is a behavior with a staggering diversity in adaptations. To an extent it's the difference between falling asleep -- succumbing to the car's various somatic cues, what Dr. Ljung Aust called the "sound palette" of engine drumming, the dull roar of tires, as well as rocking and vibration -- and staying asleep.  "Of course kinetosis is a big concern," said Dr. Ljung Aust. We still don't know precisely why passengers get carsick more than drivers do. Nor does there seem to be any mantra, opiate, wristband or patch to fully turn down sufferers' vestibular response (equilibrium) or the body's sense of moving through space (proprioception).  In my nuts-and-bolts imagining, the solution might involve some sort of hammock, suspended and actively damped in three axes of motion. Dr. Ljung Aust said all kinds of elastified couches have been visualized and prototyped. The deal breaker has always been safety.  "We expect A.I. and non-A.I. cars will share the road, coexist," he said. "So we cannot compromise on **crash** safety." Typically, humans move around in their sleep, some quite a lot. But passengers are safest when sitting with their hip girdle squarely belted into the seat. Part of the reason it's hard to sleep through the night in any moving car is, ironically, the prolonged immobility.  "We created a sort of restraining blanket for the 360c," said Dr. Ljung Aust. The team also tried occupant safety "leashes." "That's going to need a lot more work," he said.  ---  40. Snuggle a Robot  Research has proven that a good cuddle can help you drift off. That's why Somnox -- the world's first sleep robot engineered to be spoonable -- comes in handy. Not only does hugging this pet-like cyber-cushion help you relinquish consciousness, Somnox's beating pulse can regulate your breathing to knock you out faster. And the companion app lets you command the 14-inch-long pillow to play a slew of other sounds, including white noise and a handful of lullabies and meditations. Just don't expect a deeper sleep upon that first embrace. It takes your snuggle buddy at least a week to sync to your behaviors and smartly adjust. $500, meetsomnox.com  ---  41. Shut 'Em Up  "Sound asleep" takes on new meaning with these Kokoon headphones. Tech-enabled, ultra-light and uniquely sloped -- with active noise cancellation, active white noise and passive noise isolation built in -- they're crafted to wear comfortably in bed. Via EEG brain wave sensors embedded in each can, they detect when you've escaped into dreamland and flip on active white noise to block any commotion that might jolt you awake. $315, kokoon.io  ---  42. Customize Your Cushion  The paralyzing variety of pillows on the market -- from super-soft down to allergen-free latex foam -- is enough to keep you up at night. Enter Pluto Pillow, a new sleep brand that crafts custom bed cushions in 35 variations based on your unique sleep profile. Pluto's algorithm inquires whether you prioritize plushy over supportive, whether you are a side or stomach sleeper and if your head heats up during the night, to help pinpoint your ideal nighttime companion. The height and density of the solid foam core pillow along with the thickness and quantity of the long, silky fibers in the outer casing vary with each design. Test it for 100 risk-free nights to make sure it's just right. $85, plutopillow.com  ---  43. Twinkle, Twinkle Little Star  In 2004, Guinness World Records immortalized the Megastar, a revolutionary device from Japanese engineer and entrepreneur Takayuki Ohira, for its ability to project 5.6 million stars. Made for use at art exhibitions and large-scale events, the Megastar's technology has since been shrunken by Mr. Ohira into the Homestar Flux, a softball-size planetarium that projects a sky on your bedroom ceiling full of 60,000 high-def stars from distances of up to 114 inches. Its galaxies shine brightly thanks to advanced optics, like five-watt warm white LED lights, while the silent disc rotation ensures the Flux fits unobtrusively into a nighttime drowse-off routine. $189, segatoys.space  ---  My Best Sleep Ever  At home, we have kids crawling into bed at all hours. But some of my best nights of sleep have been in the back of my van after an exhausting big wall climb in Yosemite. It's super quiet. No distractions. And the back is fitted with a custom mattress -- even if it's just 4 inches of foam sitting on plywood. I like waking up feeling sore, but a good kind of sore from working hard the day before.  TOMMY CALDWELL  Pro climber, led the first team to free-climb Yosemite's Dawn Wall |
| IN | i3454 : Personal Electronics | i35101 : Passenger Cars | i3302 : Computers/Consumer Electronics | i351 : Motor Vehicles | iaut : Automotive | ielec : Consumer Electronics | itech : Technology |
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| RE | usa : United States | namz : North America |
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| CLM | Business & Finance |
| SE | What's News |
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| LP | The yield on the benchmark 10-year U.S. Treasury note fell to an all-time low amid worries the coronavirus could seriously disrupt the world economy. U.S. stocks extended their slide, with the Dow and S&P 500 both down more than 3%. The Nasdaq fell 2.8%.  --- |
| TD | Disney 's Robert Iger stepped aside as CEO but will retain significant power over the company as executive chairman. Bob Chapek succeeds him as chief.  ---  Salesforce said co-CEO Keith Block is stepping down, leaving Marc Benioff in charge of the business-software provider.  ---  Safety investigators rebuked the regulator responsible for overseeing the safety of **Tesla**'s **Autopilot** system, which they found contributed to another fatal **crash**.  ---  Amazon rolled out its checkout-free "Go" technology in a large grocery store in Seattle and plans to license the cashierless system to other retailers.  ---  Univision agreed to sell a majority stake to a bidding group that includes ex-Viacom finance chief Wade Davis and Searchlight Capital .  ---  Mallinckrodt said it reached a more than $1.6 billion settlement of liabilities stemming from the opioid-addiction crisis. |
| CO | srcxlc : Searchlight Capital Partners LLC |
| IN | i81502 : Trusts/Funds/Financial Vehicles | i8150203 : Private Equity | ialtinv : Alternative Investments | ifinal : Financial Services | iinv : Investing/Securities |
| NS | m11 : Equity Markets | ccat : Corporate/Industrial News | ncdig : Corporate Digests | ncolu : Columns | npag : Page One Stories | mcat : Commodity/Financial Market News | ncat : Content Types | nfact : Factiva Filters | nfce : C&E Exclusion Filter |
| RE | usa : United States | namz : North America |
| IPC | NND | TPX | BZF | PGO |
| PUB | Dow Jones & Company, Inc. |
| AN | Document J000000020200226eg2q0005t |

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| HD | **Tesla** System Is Cited in Fatal **Crash** |
| BY | By Tim Higgins and Ben Foldy |
| WC | 741 words |
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| LP | U.S. safety investigators leveled a blistering rebuke of the federal regulator responsible for overseeing the safety of **Tesla** Inc.'s advanced **driver-assistance** system called **Autopilot**, which they found contributed to another fatal **crash**.  **Tesla**'s **Autopilot** played a role in a **crash** that killed the driver of the auto maker's Model X sport-utility vehicle in March 2018 in Mountain View, Calif., the National Transportation Safety Board said Tuesday. |
| TD | The agency, better known for its investigations into airplane **crashes**, has been increasingly scrutinizing the emergence of automated-driving technologies and pushing the National Highway Traffic Safety Administration to do more to ensure the safety of advanced **driver-assistance** systems.  "It's time to stop enabling drivers in any partially automated vehicle to pretend that they have driverless cars because they don't have driverless cars," NTSB Chairman Robert Sumwalt said Tuesday. He urged NHTSA to "fulfill its oversight responsibility to ensure that corrective action is taken when necessary."  The NTSB detailed its findings during a meeting in Washington, setting the stage for increased pressure on NHTSA, which regulates cars and has the power to force **Tesla** to make changes. Unlike NHTSA, which can require action by car makers, the NTSB only issues recommendations on how to improve safety.  The NTSB faulted the regulator's investigating arm for not thoroughly assessing the effectiveness of **Tesla**'s driver-monitoring system, foreseeable misuse and risks of it being used in ways it wasn't designed to handle. It urged further evaluation of the system.  NHTSA will review the report and considers distracted driving to be a continuing concern, an agency spokesman said. **Tesla** didn't respond to a request for comment.  The NTSB also attributed probable cause of the 2018 **crash** to the driver, Walter Huang, who was likely distracted playing a videogame on his employer-issued cellphone. His SUV veered into a road barrier at 71 miles an hour during his morning commute along Highway 101.  The findings won't result in any penalties or other immediate consequences.  The NTSB and NHTSA have differed on **Tesla**'s **Autopilot** in the past as the government tries to adjust to the fast-moving world of increased **automation** in cars. Regulators are grappling with how to find the right balance between encouraging potentially lifesaving technology while ensuring the public is safe.  NHTSA has opened 14 investigations into **Tesla crashes** involving **driver-assistance** systems as part of a broader review of the technology. Two of those investigations include fatal **accidents** in the past two months.  To help shape future policies, NHTSA has been soliciting feedback on new test procedures for the technologies. Congress has also been considering potential legislation for autonomous vehicles. At a Senate hearing in November, **Tesla**'s **Autopilot** was singled out for criticism by both Mr. Sumwalt and Massachusetts Democratic Sen. Ed Markey, who repeatedly pressed NHTSA's acting administrator James Owens about drivers using the system unsafely.  In 2017, NHTSA found that **Tesla**'s **Autopilot** contained no defect during a fatal 2016 **crash** in Florida. The NTSB later concluded the auto maker contributed to the incident with a technology that allowed the driver to go long periods without his hands on the wheel and ignore the company's in-car warnings.  In that incident, driver Joshua Brown had **Autopilot** engaged when his **Tesla** Model S ran through the underside of a tractor-trailer. Investigators found that Mr. Brown made no attempt to stop and the car's data showed the system didn't detect his hands touching the wheel in the seconds before the impact.  On Tuesday, the NTSB reiterated its findings in Mr. Brown's **crash** and highlighted other **Tesla crashes** in addition to the Mountain View incident that shared similarities. The incidents showed prolonged inattentiveness by drivers.  **Autopilot** is the marketing name for a system of functions that allow **Tesla** cars to steer, brake and cruise themselves under certain circumstances. It doesn't amount to **self-driving** and the company instructs drivers to keep their hands on the wheel and pay attention to the road.  Following the 2016 Florida **crash**, **Tesla** made adjustments to the system such as reducing the time a driver's hands can be off the wheel before getting a warning. **Tesla** Chief Executive Elon Musk has acknowledged that some drivers are overly confident with **Autopilot**, but he has defended the system. |
| CO | ntsbd : National Transportation Safety Board | teslmi : Tesla, Inc. |
| IN | i35101 : Passenger Cars | itsp : Transportation/Logistics | i351 : Motor Vehicles | iaut : Automotive | i35104 : Alternative Fuel Vehicles |
| NS | gvbod : Government Bodies | gmmdis : Accidents/Man-made Disasters | gdis : Disasters/Accidents | c13 : Regulation/Government Policy | c131 : Regulatory Bodies | gtacc : Transport Accidents | gvtrn : Transportation Department | neqac : Equities Asset Class News | ccat : Corporate/Industrial News | gcat : Political/General News | gpir : Politics/International Relations | gpol : Domestic Politics | gtrans : Transport | gvexe : Executive Branch | ncat : Content Types | nfact : Factiva Filters | nfcpin : C&E Industry News Filter |
| RE | usa : United States | usca : California | usw : Western U.S. | namz : North America |
| IPC | ABO | AEQI | SGN | NTS | TRN | USG | AUTO | NND | BAF | SFR | TPT |
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| AN | Document J000000020200226eg2q0003b |