NEW YORK JOURNAL, SUNDAY, APRIL 18, 1897. THE WHEEL IN POLITICS, a co a How the Rubber-Tired Vote of Chicago Elected a New Mayor. lawofthe Pewly Possible

a subscription and the subscription with the second second atenders in the Meiner of Chickpu polline.

Convertative scheeting althoutton estimate the total strength of the rading stars to Chicage at not loss that 200,000. Of. this purcher that estimate that Distant as 100,000 are wolned. Wines they have an ordinance pressing to the City Council or are in the heat of a competen, this comman is frequently doubled for exponentative purposes. But now that the star paign is story, they have because more moderate to their stalms. and admit that TLOOD, or possibly 100,000, whethers voted at Abs here election. Just how some epclose notes went to which of the fory solding condulates for Marset is seen thing that not even the ballots sutil tell.

that her this cummings. In many ways the good presentable Chicago has ever seen for a purely Local affair-the whrelinen were so extracted reportions farmer. This is near attended by the fact that one cutilizer-the aucroastic out executively bis ployerstanty in chciting configures, this, another, and a wheelstance plants in his plantprint that a threat Aladated the month of having saved an separtural streat as a hundermed and conmeeting link for the wheetpath eround the ony and through the parts, and that the something toning or for all the enterthings made every possible after to exercises the swince, who elde wheels that their men was the and stenon pace retend of the wheet. nion that was nating for their suffrage. The seen summing the askyrighted perfing clobs over an tuillicsement of Barrison for the headeds in the organization was one of the sorthing festures of the country days of the supporters.

This is also the first time that spread ment on wheelment have falses any ergent Ered interest in polyment affeirs. Beywood kines the "good simils" proposition and been advanted, but unmensatulit, for, so a cold, the schoolman allface referred to be enthroad on the soldert or grow spatially hefree one computers really logare.

But in this lost fight the redlets were attend in, and as biainin. - frivery yourscost trrugolical the fiel, and acted upon the knowladge in the heat of his shifter. A former Positionner of the hig city of Chireary, and a Judge of one of the lower reacts." of the Male, officiated as approve in elg-day mercle men. Xot Washington Beaug and Judge Sears, hoth constitutes for Maxon, did not think it beneath their digners to so honor the wheelman of their town, in lays that the missiman would be rurn house these. The two other excilidates, in addition to Divide and flears, were Carbor Horrison and Aldernian John N. Harlan Of the Door, Marriage understructly had the best start in the rare. file combostion was a string presignition of the potence and value of the bicoch water. In addition to file popularity as the aim of the marryr Mayor, who was che vietim of the means assault, Prendergast, Harrieso is an activo wheelman and a member of the Contary front Club. With In five slave after his non-truthen he had presided 500. 100 half-tone childs, showing binoisif in road-citing metaine, meaning on a wheel. A Centery Hoad City bedge, setth thirteen contury here, telling the adicial story of thirtons contary sides, was glaned to his brauk. It has been said thad this much bles many votes.

Washington Heating, bullependent conditions month nated at a convention of Bosiness men, had a cooling plank placed in his platform. This plank restrict the fart that there are 20,000 ereliets in Chicago, that they are nearly all taxpapers; that they should be amondat sights an each, and this therefore he detured. the improvement of reads throughout the enty for the issueffi of the wheel millers. This plack was used entrustryly on surds distributed throughout the cur, and above out large display eards, on bill-houseds, and in church Billionna and Bertsche,

John Mayneed Harles, another independent randidates, made a hid for the cycling vote by hemping to the front his work as an Aldernian when the inference of the spellant week at Garter state. A year api, pust as the City Council was about to colleve retiring serves have and fortall new store.

Marrison.

loc.gov/resource/sn83030180/1897-04-18/ed-1

setting that Goorge R. Bayers he waspended. Horrest. itny mit of the offpore of the Chicago Cycle Cich. uil'the solver of Bearings the leading bryck- public certing of the West. He was also an officer in actand other of the and is one of the loss haven antheorities on wheethat in the country.

President Potter did the agree to Marriet's simplesion, but word hash, the following using papers reports "A momiler of the Longue may be disciplined or enpelled outp when gathy of employed preparticles to the saterrots of the organization. The retirently of lilinois und other Studie East and West have malered the subsciences to the extent of hundrods of those south of dollars by untersfol charges, shit by winder fright methods have delenshed and percented ispication in their efforts to dr-Tost the athening and seen they says costs. The willowliness of Silipoits are seekbur to oblight public uthrows hims will, huy to surrapped he rathened indumers, and if. as I condernated live symmetrics, they find. illinuis publics in he anivertity of the ormillarities, floor and more unfortunate bern sindul. The Longto of Almerican Whenland will appear the erritate of Diffusion with will bein to these he set an example in their efforts for wheelman rights and berror made which other States may problishin employer.

The copic of President Protor had the officer of beauting the trace of neutrality most effortually, and the supporters of headth builden exceptions insurantly all their preferences. Barrhon persisted the support of the Chirago Crew Chin and Ld. tions of the stralling state. Many of him addressed a warm not for him arowed); an sequences, but product their support holtvidealty. The Wheelman & Munitipal Longton was organized to boom the ellock of Glifferman Barlan. Chief Cloued Patter, who classeeed as areleastly for lightreet a approximation, triad for strawer the support of this organization in Science, the marihing Seinfluence conditate, but was communities.

When the octobes came in Harrison may storted by the Industry court fforcisco, 3 au. (13) Harbon, 72 (000; Mosro, 40.688); strong, 38,100. In accounted the the very ligration gave excelle to the wheetingen for big successful usualding and pressing in he ation to story seel farperate afwars, and he not

Moor and widdly exclude have been the explana-These of that eserties. Chicago pullimings gep atr ting moder, of only bound the hold been brought date must if this, that or the other fake had been model. the how dista would have fallen fors line that sheath Mut the new conservers- new when when he mut should ed to the cross attainable to of publics ... helleve that the Advertise outs secrety followed firms of emiliance judgment, and discretion, that the underlaw of edges. faitured clarbor discrision because they thought he underwood their interests next and could be doproduct upon to and with Attacation and anterestity in office ; sion hearmone too had been on had presented by do only surfaceboy thing

Whatever may be said of the hispide value it is pastolide an intelligent vote. Illegation are hard prople in decator, They see more of the elty is which they live, in the properties of here to ever, there the attempt of these who do not tide. They will meter, but any vity's streets he unneversatily disty; they will have good personnite, and mey will have emert, here, hereat muits to office. The open fair that summer tearing leads as more binante of coulds new out tony made, through so many differ our effice and lawner, will make the birnels thus formitiable. For it money education in the true, "practical" pullice-the politics of heing as well served by officials as she's n-ighbors, as clean and fra-

and asts in person and property as are the eithness of other manics

Codeohtelly a matuke has often book made by supposing that The Dovertiens he possible annut stand atomthat their interests new either spread to ar at local totally separate from those of the Mayor of non-stilling body of theporyers. At frest there was some truth in this they. The as for havy intens, and with a clear most beincitizinty limited by the point is prevent he has bleycle power in hoad politice was noty | headed a randlenge to this any one in Ghicago. alow to receptize the help that was offered - the world, at any distance, at any

The Monthly of the Addreside is James Presently, a screttary

coll engineer, of No. 49 Names Arrent. "Thy first model was maile in a Beckmail about marking stop. Extended plifts. tions love token to good the about from the introduce of

The investor of this sound, they do utilizes the princery peticipie of hourselfs pressure, which is that an epcloard second of an in-second light is as expected of rentemitting force on it a fine of which or either motal. But his the case of the lipid haing as employed the force is pressalgared in the form of waves, which can turn corners and he sent lark in their source of being.

Revenuer Presence adapts the principle in this way: At the inver end at the frame of the wheel, just where the spinited which heatings are almated in the ellingy hereits, is a tribulier about rares and a half hitters in dismolet, being at my star a argument hisists from which agining four totors. These takes are about three quartory of an lines on distorter and some the radius of the other wall in smother and signifier erflector, which takes the place of the bulk of the reat wheel of the out. hims. The falses span. Inter the factortis of both the large woll somil opin-Insule the larger or "driving" erdin-

dre is an accention, in addid any al. tarbold the policie. The eccentric is provided with values of a permiter does struction, as which further adjudge with he mede

The interim of the real vylinder. to house since house a multi-apprilent todathis in the Surger countration. Is stick will have statusters with To assure the various actuants the roar wheel proclas-Ir as the revolution of the forward everyticks" is variationd for the pedate. The investor file the takes and of. dears turn the far entrying a differ avoided lin. The symplets are then between

When the peckle are turned, the calcon of the everytery and he of of the To incovers highly a toold longering actual effortungia (the state forward statutes, herbward to the ration of the sense stimule, which wattaw and in turn. orderhood by this Herstill. He is like your mill a hashs being thread by an indistant "rece-

Blaxing done, its work, the set then enthe the tree upper tobes, which shudlen in tack he the driving epileter. Ity as the gondone arrangement of the volves in the big studies, the support of our same. It is railwood, flow Back balls the return takes, the inquine of the liquid being invertably from fruit he star. "The rative of the star epitador Country blue directed.

The establish sizes of the cylinders are such shat, under sormel conditions the hydraule is genred to statz. To change the genr the bareated has heady use of another subjituded

CULTE SANDOW, the champion heavy weight given the perfect physical man, and, percenting to bis astatumanager, the still our in emistence, is working increase in new Belds. The lifting of tune and the worship of howing trainen have berings contamplate to this modely afpetreethcountry Sumpsid, and he is susaning when i backing for other wurtile to consist?

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The has seen to the constitutes. shad, if the louth more known, he is enrithed to the championship for hong discussive bicyclic chiling, dw well,

Strong Man

LIT LA B THINK I'V CALLET W. AMPLE THAT BE DESIGN placed under the bandle hous enables the other to present ma bit is firm freein from the striking symplet on into see of the jupper of the frame.

> The treals in that the oil in the oplinder takes identing us resistances the cullisher univer have not gets. on the liquid. Consequently the whereas around an they places. Mut, as the podute one, for the their Belling. diacommerical, we be special the thirty many hade his freed on them while considing, which is explored on a distance. paties in forest of the legituration. At the terminarities of the "read," the lover is reliance, the off is lower methodown have notice in the second of the second pairs owned in reasoning.

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to New York ... Define highling for the

Racing

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VAV





The future's right on schedule











Permission or forgiveness



Automated Vehicles Are Probably Legal in the United States

Bryant Walker Smith | November 1, 2012











Everything is beta

@elonmusk 1:27 PM - Jul 10, 2016 Use of word "beta" is explicitly so that drivers don't get comfortable. It is not beta in the standard sense.



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We need innovation ...

... in automated driving technologies

... in safety assurance

... in regulation

Focus less on the technologies

And more on their companies

 $\bullet \bullet \bullet$



A diverse set of...

... technologies

... applications of those technologies

... business cases for those applications

... participants in those business cases

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SAE J3016[™] LEVELS OF DRIVING AUTOMATION



Pop quiz!

On reaching a crash, an automated vehicle (AV) stops in its lane until someone at a monitoring center sketches a travel path. Using its sensors, it then follows this path.

1) Is this L3 or L4 automated driving?

2) Is there a remote driver?

Level	Name	Narrative definition	DDT			
			Sustained lateral and longitudinal vehicle motion control	OEDR	DDT fallback	ODD
Driv	er performs p	art or all of the DDT				
0	No Driving Automation	The performance by the <i>driver</i> of the entire <i>DDT</i> , even when enhanced by <i>active safety systems</i> .	Driver	Driver	Driver	n/a
1	Driver Assistance	The sustained and ODD-specific execution by a driving automation system of either the lateral or the longitudinal vehicle motion control subtask of the DDT (but not both simultaneously) with the expectation that the driver performs the remainder of the DDT.	Driver and System	Driver	Driver	Limited
2	Partial Driving Automation	The sustained and ODD-specific execution by a driving automation system of both the lateral and longitudinal vehicle motion control subtasks of the DDT with the expectation that the driver completes the OEDR subtask and supervises the driving automation system.	System	Driver	Driver	Limited
ADS	5 ("System") p	erforms the entire DDT (while engaged)				
3	Conditional Driving Automation	The sustained and ODD-specific performance by an ADS of the entire DDT with the expectation that the DDT fallback-ready user is receptive to ADS-issued requests to intervene, as well as to DDT performance- relevant system failures in <u>other</u> vehicle systems, and will respond appropriately.	System	System	Fallback- ready user (becomes the driver during fallback)	Limited
4	High Driving Automation	The sustained and ODD-specific performance by an ADS of the entire DDT and DDT fallback without any expectation that a user will respond to a request to intervene.	System	System	System	Limited
5	Full Driving Automation	The sustained and unconditional (i.e., not ODD- specific) performance by an ADS of the entire DDT and DDT fallback without any expectation that a user will respond to a request to intervene.	System	System	System	Unlimited







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Figure 8 - Simplified logic flow diagram



"Drive means to drive, operate, move, or be in actual physical control of a vehicle...."

"Operate ... means to drive"

"Operating ... is generally given a broader meaning [than driving]."

Maryland Transp Code § 11-114, 141 (2016) McDuell v. State, 231 A.2d 265, 267 (Del. 1967) Bryant Walker Smith, Automated Driving Is Probably Legal in the United States (newlypossible.org)





SAE J3016[™] LEVELS OF DRIVING AUTOMATION



Who should an automated vehicle kill?

Does the public trust AVs?

How safe is safe enough?

How should safety be assessed?

Does the public trust AVs?

We are fickle

Marketing is coming

Words are not actions

A lot changes before 100%

Should the public trust AVs?

They don't yet exist

They will be really diverse

They won't be super dangerous...

How safe is safe enough?

Prospective: Before deployment

Retrospective: After deployment



Retrospective safety will mean

At least as safe as a human in the maneuver and

At least as safe as a **comparable AV** and

Safer than the last AV that failed

Prospective safety will mean

Reasonable confidence that the AV developer **is worthy of our trust**

Who drives an AV?



Humans won't drive AVs

Computers won't drive AVs

Companies will drive AVs

Uber's fatal crash



Companies will drive AVs

AVs are only as safe as their companies

Companies are legal subjects that act through their human and machine agents

> Companies can do right even after their technologies fail

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A trustworthy corporate driver

Shares its safety philosophy

Makes a promise to the public

Keeps that promise

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Safety philosophy

"This is what we're doing

"This is why we think it's reasonably safe

This is why you can believe us"

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Promise to the public

"We market only what we reasonably believe to be safe

"We will be candid about our limitations and failures

"When we fail, we will make it right"

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Keeping that promise

Manage public expectations

Supervise the entire product lifecycle

Mitigate harms promptly, fully, and publicly

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A trustworthy company

Shares its safety philosophy

Makes a promise to the public

Keeps that promise



AUTOMATED OPERATION OF VEHICLES ACT

NATIONAL CONFERENCE OF COMMISSIONERS

ON UNIFORM STATE LAWS

uniformlaws.org/Committee.aspx?title=Highly%20Automated%20Vehicles

Automated driving provider

Self-identifies to the US state government

Represents that the automated vehicle is capable of complying with the vehicle code

Acts as the legal driver from the start of automated operation until a human driver intentionally terminates that operation law of the

Keep it simple

Either you are intentionally driving...

... or you are not driving

Because when everyone is responsible, no one is responsible. Law of the

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Complementary approaches

Levels of automation as a promise to the public SAE J3016 Definitional Concept

Automated driving system entity (ADSE)

UK Law Commissions and the Australia National Transport Commission

Safety self-assessments for automated driving Transport Canada and the US National Highway Traffic Safety Administration

Safety is not just a single test!

Management philosophy Design philosophy Hiring and supervision Evaluation and integration of standards Monitoring and updating **Communication and disclosure** Strategies for obsolescence



Safety as marriage, not wedding

AV developers will vow their systems are safe

Will you trust them then and in the future?

What is the basis for that trust?

Regulators can do this well

Focus on processes and systems

Identify assumptions and logical progressions

Ask questions and challenge answers

For provinces and territories

What are your government's goals?

How can automated driving help those goals?

How else can you achieve those goals?

See How Governments Can Promote Automated Driving at:



AND A LEAN, SILENT FIGURE SLOWLY FADES INTO THE GATHERING DARKNESS, AWARE AT LAST THAT IN THIS WORLD, WITH GREAT POWER THERE MUST ALSO COME -- GREAT RESPONSIBILITY!



