

Autonomous Exhibition

My idealised exhibition will be based on an autonomous view of the transportation industry, portraying various aspects of driverless cars and road systems from different eras. Starting in the 1920s up to present day autonomous cars have developed from an idea thought impossible by many, to a reality. Driverless cars are expected to be on the road soon, some speculate only in a couple of years while others a couple of decades. This is because there is no pin pointed definition of autonomy in cars, some developers (Toyota) state that it is simple actions a car may take without user interaction e.g. changing lanes, entering and exiting slip roads or acceleration/deceleration. Others say an autonomous car is a fully unmanned vehicle which operates without any human intervention under all conditions, therefore being put into production in the next couple of decades.

The exhibition will be held in the art museum Kunthaus Bregenz which is in an Austrian capital. This will provide an urban backdrop which compliments the vehicles exhibited. The interior of this glass and steel building is fully concrete giving an illusion of a motorway or road therefore immersing the viewers. It will be on the bottom floor because of the large vehicles used in the exhibition.

It will consist of 5 autonomous cars and one autonomous traffic system from the 1920s to 2018. The first expanse or room the viewers walk into will present the most recent autonomous cars whilst a different room will hold the old autonomous cars and the traffic system. This will provide a clear divide in the evolution of the vehicles, so you can clearly see the change taken place throughout the years. The first room will



include the VISLAB Braive, the Google Firefly and a Tesla model X. The VISLAB Braive (a saloon car) was one of the first cars to successfully autonomously navigate through an everyday mixed traffic route without a driver. Although the test drive included a co pilot monitoring the onboard

computers making it not fully autonomous. (2013) Although using an existing car body making the Braive look less futuristic the main eyecatcher was the software used, for its time it was a major advancement in technology. Therefore, it will be at the forefront of the exhibition.

The Google Firefly now taken over by Waymo will be situated in the centre of the room, it is a 2-seater, futuristic bubble car which has no pedals or steering wheel. The car was not created as a production vehicle but a basis on which a company can learn



and innovate upon in the autonomous field. This will be a major element in my exhibition as the Firefly was created from scratch developing technology used in the industry. The situation of the Firefly in the exhibition has a large impact on the viewers interpretation of the vehicle, as it will be placed in the middle of the room it adds an aura of importance and will become the focus point, this is because of the advancement of technology within it, which in turn shaped the industry.

The Tesla Model X will be in the same room. It is one of the most recent cars to be partially autonomous, its autopilot system means it can pretty much do anything a driver can do whilst you sit back and relax, Tesla also boast the self-driving mode has a safety level much higher than a human driver. These vehicles are also in



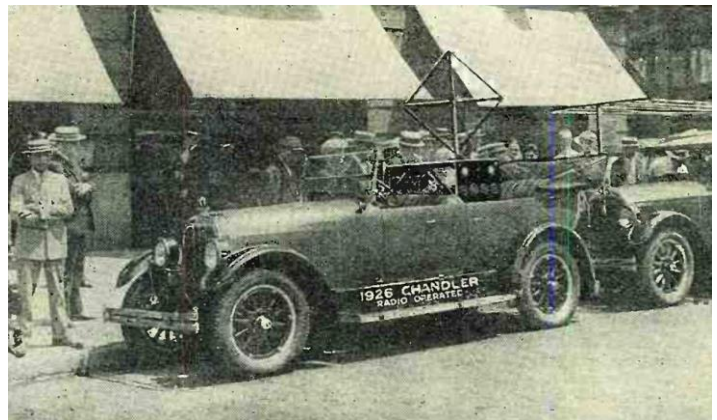
production and road legal. I have included this vehicle in the exhibition mainly because of its looks and the company it promotes, as Tesla will soon bring out fully autonomous vehicles. Viewers of the exhibition will instantly be attracted to it because of its size and embodiment of the future. (Tesla Motors, n.d.)

The second room will include the first conceptualised autonomous vehicles. The 'American Wonder' which is a radio controlled 1926 Chandler, the NAVLAB 1, a Chevy panel van which began in 1986 and an RCA miniature autonomous traffic system. In the centre of the room the 1953 RCA miniature track will be setup, this was a circuit which operated the cars



using underground wires or detector circuits. These wires sent impulses to guide the miniature vehicles along the 'road'. This was a miniature idea which could have had potential to be created into full scale production therefore being one of the main exhibits in the room, it also creates an interactive environment within the exhibition engaging the viewers whilst creating an immersive experience.

Also, in this room will be the 1926 'American Wonder' created by Houdina this was the very first concept or vision of an autonomous car. It had a large antenna on top which would use the radio waves from a following driven car, these radio waves would signal electric motors which in turn



moved the car in different directions. This will be one of the better exhibits as it was the first of its kind and will show a clear comparison to present day autonomous vehicles. Adding a historical perspective, many witnesses of the test run of the vehicle would have been in awe as cars themselves had only recently been introduced therefore not only being a piece of autonomous history but automotive history thus adding value to the exhibition. Along with this exhibit information on its history will be shown, as well as the other exhibits. (Science: Radio Auto, n.d.)

The final autonomous vehicle in the exhibition will be the NAVLAB 1 which is a converted Chevrolet panel van. Created in 1986 by Carnegie Mellon University the NAVLAB 1 was one of the first endeavours into autonomous vehicles, it had a lot of computing power including video hardware, GPS receiver and a



warp supercomputer, although only reaching a top speed of 20 MPH. This attempt at autonomy was used as a building block for 8 more NAVLAB vehicles all surpassing their previous versions, the best being NAVLAB 5 which steered itself from Pittsburgh to San Diego. The NAVLAB 1 is in the exhibition because again it was one of the first autonomous vehicles to be made, it has a certain presence because of the size and the exterior computers and sensors add a certain charm which will draw in the viewers of the exhibition. (Navlab: The Carnegie Mellon University Navigation Laboratory, n.d.)

My aim for the exhibition is to create an urban and futuristic environment which compliments the different autonomous vehicles (new and old) I feel these 6 vehicles/ traffic systems have shaped the future of autonomy and made it just that bit closer.

Although many people believe that autonomy in not only cars, but everyday tasks will advance us as a species, some believe that it may aid in the degeneration of our evolution. This is because we have lost our innate desire to survive whilst being an active race, our new-found inactivity may indeed evolve us into brainless beings, whilst so called 'robots' and machines created by us control every little thing we once did. But this is only speculation and if happened would take millions/billions of years. There is also an opposite view which is that it would advance us as a species, we may be able to create robotic brains to enhance our capabilities.

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