智能汽车渐行渐近
SMART CARS MOVE CLOSER

文 / 章 程Text /Chang Cheng

汽车智能化已经成为不可阻挡的世界潮流，无人驾驶智能汽车离你我不远了。2012年，佛罗里达州长斯科特签署HB1207法律，美国佛罗里达州成为第一个允许自动驾驶汽车上路的地方。2014年7月，英国商务大臣凯布尔则宣布，明年1月开始允许无人驾驶汽车在公路上行驶,或将成为第一个允许自动驾驶汽车上路的国家。世界各地众多无人驾驶车型纷纷亮相曝光。兹选择介绍如下：

谷歌将产100辆无人驾驶车

谷歌计划量产一批无人驾驶汽车的原型车并在加利福尼亚的公路上试运行。本次谷歌将生产自己打造的100辆原型车。这些车均不设方向盘和踏板，与此前谷歌对现有车辆进行改装的无人驾驶汽车不同。这些双座电动汽车最高时速设定在25英里，发动机盖以泡沫材料打造，使撞车带来的冲击降至最低。据悉每辆车将拥有两套发动机，假如一套失灵，另一套也可确保车辆安全行驶。谷歌希望两三年里能在加利福尼亚州的公路上试运行它的无人驾驶汽车。但其未透露这批原型车已外包给哪家制造商生产以及它们的造价是多少。

谷歌的联合创始人谢尔盖·布林表示，打造这一原型

Intelligent car has become an irresistible trend of the world, and unmanned intelligent cars are not far away from you and me. Florida governor Scott signed HB1207 law in 2012, Florida became the first to allow self-driving cars on the road. In July 2014, Britain's business secretary Vince Cable announced that from January next year driverless cars could run on the road. Britain may become the first country to allow self-driving cars on the road. All over the world many unmanned vehicles have been exposed. Some of them are as follows:

Google will produce 100 driver less cars

Google plans to mass produce a batch of driver less cars which are subject to a trial in the road of California. The Google will produce them

车的主要原因是，相对于改装现有车辆，打造原型车可以有更好的发挥。

奥迪展示无人驾驶技术

奥迪近日宣布将在美国佛罗里达州坦帕市的Selmon高速公路公开展示无人驾驶技术。奥迪将采用一辆A7轿车来演示在时速40英里/小时，约合65公里/小时的情况下奥迪的无人驾驶技术。奥迪宣称，目前这项技术只是奥迪无人驾驶的最初版本，而交付给用户使用的版本，将在五年内推出。这是奥迪第一次公开演示自己的无人驾驶技术，奥迪所采用的运算核心，很有可能是来自NVIDIA的K1处理器。

百度研发半无人驾驶汽车

中国搜索引擎巨头百度正在研发无人驾驶自行车。继谷歌宣布研发自动驾驶汽车后，百度高层证实百度已启动半无人驾驶汽车的研发计划，预计首款原型车将在2015年亮相。

科技网站Ubergizmo报道，百度深度学习研究院(IDL)常务副院长余凯表示，百度研发的汽车并非完全无人驾驶，而是给予司机一定的帮助，司机依旧完全掌控汽车。他透露，百度研发的半自动汽车能收集路况信息，而后随机应对。他认为汽车应该是人类的助手，而不应该完全取代人类，所以他称该产品为“高度自动化”。

百度与谷歌无人驾驶汽车的区别——谷歌无人驾驶汽车没有传统刹车板、方向盘和油门等，实现全自动；而百度无人驾驶汽车则保留方向盘和踏板。

百度强大的数据资源是其良好的基础，百度已经将视觉、听觉等识别技术应用于百度魔图、百度翻译等部分产品中。

奔驰推出无人驾驶卡车

奔驰用基于“未来卡车2025”(FutureTruck2025)理念所开发出的“高速公路领航”系统(HighwayPilot)实现了卡车自主驾驶。

by itself. These cars have no steering wheels and pedals, which are different from those assembled by it, because the latter ones are the modified version of existing vehicles. These are two-seat electric cars with a top speed of 25 miles and a hood composed of foam which can minimize the impact of the crash. It is understood that each electric car will have two sets of the engine, if a set fails, then another set can ensure a safe run. Google hopes to make a trial run on the raod of California. But it didn't disclose their contracted maker and price.

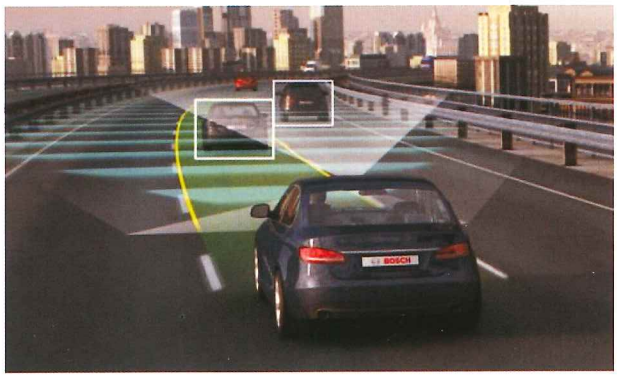
Google co-founder Sergey Brin said that the prototype cars could have better performance when compared to the modified version of existing vehicles.

Audi self-driving technology

Audi has announced that it would show its self-driving technology in Selmon Highway, Tampa, Florida, the United States. Audi will use a A7 car to demonstrate this technology at a speed of 40 miles per hour, or about 65 km/h. Audi claimed that this technology was just the original version of Audi self-driving. The version delivered to the user will appear in five years. This is the first time for Audi tp publicly demonstrate their self-driving technology. The computing core adopted by Audi is likely to be from NVIDIA K1 processor.

Baidu develops semi-unmanned cars

Chinese search engine giant Baidu is developing a unmanned car. After Google announcing the development of self-driving cars, Baidu executives confirmed that Baidu has started the research and development of semi-self-driving cars. It is expected that the first prototype will debut in 2015.



Technology site Ubergizmo reported that Yu Kai executive vice president of Baidu Institute of Deep Learning (IDL) said Baidu researched and developed semi-unmanned driving technology which could give the driver a certain help. On the other hand, the driver still fully controls the car. He revealed that Baidu's semi-automatic cars could collect traffic information and produce andom response. He thought the car should be human's assistant and should not completely replace human beings, so he said that the product was highly automated.

在时速80公里的一辆重型卡车上，驾驶员无需触摸方向盘，卡车就能在前车车速变慢时自动减速并调整方向盘完成超越。这是发生在德国马格德堡高速公路上的一幕。

汉斯坐在驾驶室内，他一会儿找出一份单子在上面勾画标注，一会儿拿起iPad浏览自己感兴趣的信息。戴姆勒卡车全球负责人沃尔夫冈·伯纳德表示，“谷歌在自主驾驶方面已经进行了尝试，谁有最好的技术谁就可以出牌，我们希望在本国市场先出牌。”

美国海军陆战队正在测试

美国海军陆战队同TORCRobotics'等其它公司正在研发配有地面无人支援代理系统(GUSS)的吉普式汽车。

这辆配有GUSS系统的无人驾驶双座车称作内部运输汽车，可以用直升机进行调度，该车可以自己探索道路也可以远程遥控，时速可达8英里/时。其功用是运输部队物资(可承重1600磅)，或者是运输伤员。

韩国现代无人驾驶汽车

无人驾驶车经常出现在科幻电影的大荧幕中，现实上虽然还没有真正实现汽车无人驾驶技术，但通过现代汽车科技，将多个汽车辅助功能融合到一起，也能模拟出无人驾驶功能。

2015款现代车型-现代捷恩斯，搭载现代汽车最新的主动安全系统，将ACC自适应巡航、LDP车道偏离修正系统、DAS线控主动转向系统等安全系统融合到一起，实现了无人驾驶。

Differences between cars from Baidu and Google: Self-driving cars from Google have no traditional brake, steering wheel and throttle and so on, so fully automatic; While cars from Baidu have steering wheels and pedals.

Baidu's powerful data resources are a good basis. Baidu has applied its visual and auditory recognition technologies and so forth in Magic Image, Baidu Translation, and etc.

Mercedes Benz launched driverless trucks

Mercedes-benz according to the concept of FutureTruck2025 developed HighwayPilot system. By this system, it produces self-driving trucks.

At a speed of 80 km, a heavy truck was droven in the unmanned manner. The driver did not touch the steering wheel, while this truck could automatically decelerate and adjust the direction. It happened on the highway of Magdeburg, Germany.

Sometimes, Hans in the driving cabin found a list and marked it. Sometimes, he picked iPad up and browsed the interested information. Wolfgang Bernard global head in Daimler Trucks said, "Google has tried in the field of autonomous driving. A player with the best technology can win. We hope to be a leader in the domestic market."

America's Marine Corps is making a test

The United States Marine Corps, TORCRobotics, and other companies are developing Jeep cars with a ground support agent system (GUSS). This driver less 2-seat car with GUSS system is called an internal transport vehicle. It can be dispatched by a helicopter. In addition, it can do a self-exploration of roads and be controlled remotely. Its function is to transport supplies (1600 LBS) or the wounded.

South Korean Hyundai: driver less cars

Driverless cars often appear in the science fiction movie. IN the reality, self-driving technology does not exist yet, but by combining multiple auxiliary functions of cars, the unmanned driving can be stimulated.

2015 version of Hyundai car is with the latest modern car active safety system which combines the ACC adaptive cruise, LDP lane deviation correcting system, DAS drive-by-wire active steering system and other security systems as a whole. As such, the unmanned driving can be realized.

阿加西 电动汽车将改变世界

Agassi: Electric Cars Will Change the World

文/丹·西诺 Text / Dan

全球最著名电动汽车企业乐土公司的创始人阿加西面对这一波赚钱狂潮时极为自信地说："不出十年，电动车的销量将达到世界第一，这是全世界迄今为止最大的一次金融契机。在接下来不到十年的时间里，我们预计本行业将会带动十万亿的资金转移。这比因特网行业所带动的还要多一个尾数零。"

《创新的国度》（Start-Up Nation）是丹·西诺和Saul Singer创作的畅销书。该书的引言称赞阿加西是一个拥有睿智的思想，善于言辞的软件奇才，而且在困难的时期有坚定的支持者，如今困难似乎已经过去。他说："当你还没有将世界上最昂贵的分子数字化的时候，我们已经将石油数字化了。"他转换话题说："这样说吧：我们有中国人的支持。"

中国一直在忙于创造一个中产阶级群体，而且中产阶级确实愿意开车。根据阿加西的说法，北京的下个五年计划预计至少有1.7亿辆新车诞生，或许有两倍于此的量。更加保守的单独估计量是德国、法国、西班牙、意大利及英国所有汽车的总和。对此，每天将需要800万桶石油为其提供能源，相当于美国每天的石油进口量。阿加西问道："如果他们不用电动汽车，你知道五年后石油的价格将是多少吗？"

进入乐土公司发现，这家创新企业不仅仅生产电动汽车。他们也制造整个基础设施以保证汽车不受电池寿命的生硬限制。当企业在今年晚些时候在以色列发布汽车产品时，驾驶者应该能够使用满电电池在国内任何地方行驶160公里。如果驾驶者从特拉维夫市出发去红海，大约320公里路程，那么驾驶者则

Shai Agassi, the founder of Better Place, the most sophisticated electric-car enterprise in the world, is ebulliently confident in facing a giantwave of money. He says, "Within a decade, electric vehicles will be sold most popularly in the world, and this is by far one of the biggest financial opportunities around the world. Then in less than further 10 years, we expect the industry will drive 10 trillion to transfer. This has a greater impact than the Internet industry."

Start – Up Nation is a bestseller book written by Dan Senor and Saul Singer. In this book's preface, Agassi is praised as a man having a wise idea, being a software wizard with good communication skills, and a staunch supporter in difficult times. Now the difficulty seems to pass. He says, " We can say that we have the support of Chinese people."

China has been busy creating a middle class who really want to drive a car. According to Agassi, Beijing's next five-year plan is expected to produce at least 170 million new cars. More conservative estimate alone is the sum of all vehicles in Germany, France, Spain, Italy and Britain. To this, we need 8 million barrels of oil a day to provide energy, equivalent to America's oil imports every day. Agassi and asked, "If they don't have to electric cars, do you know how much the price of oil will be in five years?"

Entering Better Place, we can find that this innovation enterprise produces not only electric cars, but also the infrastructure to ensure that the car is not limited by the battery life. The new car released by it can drive 160 kilometers in any domestic place under

能够开进乐土公司在公路边设置的站台将使用完的电池更换为充满电的电池。更换过程大概需要5分钟。此外，汽车能够通过插头插入后轮上面的小小入口充电一晚上将电充满，如果汽车烧气时在这个地方同样可以加气。在停车场，乐土公司布置了别具一格的蓝顶充电桩，汽车也可以进行连续补充充电。

你所需知道的一切——电池转换站和充电桩的位置分布，在这些地方的驾驶者数量以及你自己距离任何一个位置的距离——都在汽车仪表盘的GPS屏上可以显示。公司的员工对电池系统持续进行了数周的测试。满载一车肥胖人群、很瘦人群或空车从特拉维夫到耶路撒冷各需要耗费多少电量。

到7月份，乐土公司希望开始单个订购土耳其制造的雷诺零排放汽车Fluence Z.E，一种四门小轿车，它和其它车看起来一摸一样。普通的以色列民众能够最早于11月份驾驶该车。

价格计算将分为两部分：第一部分是汽车本身的价格，消费者直接购买，不包括电池。电池属于乐土公司，通过预订购

买，乐土公司称这是取得使用提供电动汽车运行动力的基础设施权利的条件。商业模式采用手机范围覆盖，收费计划根据驾驶的里程数来确定。以色列的收费标准还没有最终确定。

但是，在创立了乐土公司的丹麦，最低的收费标准是300美元/月，允许驾驶里程数为10,000公里；最高收费是该价格的两倍，允许驾驶公里数不限。消费者还需要支付一次性费用，约2,000美元。即使是这样，在以色列和丹麦，每加仑汽油的价格为9美元，与燃油汽车比较，乐土公司计算一个典型的消费者的费用或将节约10%~20%，而且享受最大的满意度。

在试车跑道上，雷诺四门轿车在直线上飞驰，比丰田普锐斯更安静、舒适。相似之处在于在起点上有一点滞后，这和普锐斯以及特斯拉的G-force jackrabbit相似。所有的加扭转矩的电动跑车基准价为108,000美元。从0加速到60公里不超过10秒。阿加西打趣说："如果你想从0加速到60公里耗时5秒，你就选择特斯拉；如果你愿意多用5秒时间，我能够为你节省80,000美元。

《创新的国度》就是对阿加西创新实力的一曲赞歌。阿加西说：驾驶电动车非常非常有趣，像寻常汽车一样的电动轿车将改变世界！

the battery fully charged. If the driver travels from Tel Aviv to Red Sea, this distance is about 320 kilometers. In this case, the driver can park the new car at the station set up by Better place, which lets the battery changed. The change process is about 5 minutes. Furthermore, this car can let the battery be fully charged at one night through a small hole above the rear wheel. Refueling is available too. In the parking lot, Better Place installs a unique blue-top charging pile which can continuously charges the car.

Everything you need to know: Site layout of the battery change and the charging pile. In these places, The GPS screen in the instrument panel of the car can show the number of the drivers and the distance from the driver to any place. The staff of the company makes a test for several weeks for the battery system. The electricity quantity can be known which is needed to carry a load of fat people, skinny people or a empty load.

By July, Better Place wants to order Fluence Z.E, a four door sedan which is characterized by zero-emissions and is made in Turkey by Renault. It looks the same to other cars. Ordinary israelis can drive it as early as November.

Prices will be divided into two parts: the first part is the price of the car itself, which is directly bought by the consumer, not including battery. Batteries belong to Better Place which can be booked. Better Place says that this is a condition under which the right is gotten to use the infrastructure. The business model is to use a telephone. The fee is determined according to the mileage. The fee criteria is not finally determined.

But in Denmark where Better Place is present, the min fee criteria is USD 300 / month, allowing the mileage of 10000 kilometers. The highest fee is two times the price with the mileage not limited. Consumers also need to pay a one-time fee, which is about USD 2000. In Israel and Denmark, even so, the price of a gallon of gasoline is USD 9. Comparatively, Better Place can help the typical consumer save 10% ~ 20% and enjoy the greatest satisfaction.

On a test track, this four-door car of Renault is running in a straight line, more quiet and comfortable than the Toyota Prius. The shortcoming is that at the starting point, there is a little lag, which is similar to that from Prius and Tesla's G - force Jackrabbit. For all electric sports cars having plus torsional moment, the benchmark prices was USD 108000. Accelerating from zero to 60 km is not more than 10 seconds. Agassi jokingly says, "If you want to accelerate from zero to 60 km, which takes 5 seconds, you will choose Tesla; if you are willing to use additional five seconds, I can help you save USD 80000.

Start - Up Nation book is a song on Agassi who is powerful in innovation. Agassi says that driving electric cars is very interesting. These electric cars like ordinary cars will change the world!