The car will soon have its own account

In future, cars will not only drive on their own, but will also pay for the fuel bill and parking fees. The Internet of Things makes it possible. Crucial here: A further development of the blockchain technique.

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In just a few years, vehicles will move effortlessly through the Internet of Things (IoT), connecting people, cars, homes and cities to each other. Already today, customers in selected regions can communicate with their vehicles via voice assistants such as Google Assistant or Amazon Echo. In the future certain functions of the Smarthome will be automatically controlled by the vehicle, for example, the vehicle could pass on the arrival time, so that the heater starts at the right time and the house or apartment heats energy-saving. If you want, you can even check what is still in the fridge at home. In short, we are getting closer to our goal of turning the vehicle into a digital, mobile companion that actively supports us based on our habits.

To shape this future of mobility, automakers are increasingly pushing software solutions to data analytics, artificial intelligence, connectivity and the Internet of Things. They work on the intelligent networking and data-based optimization of devices, machines, sensors, drones, smartphones, vehicles and related services. Because with the increasing networking also the independent communication between machines among each other ("Machine-to-Machine" or M2M for short) is increasingly becoming the focus of mobility development. By 2020, according to forecasts, nearly 50 billion things will be networked on the Internet.

By analyzing data and communicating with one another, devices, machines and vehicles will not only be able to exchange information in the future, but will also be able to independently conduct trustworthy transactions, such as online payments, to make our everyday lives easier. An autonomously driving electric car, equipped with a digital wallet, a so-called e-wallet, could then autonomously control the cheapest charging station and independently pay for the electricity. Put simply, this means: one machine transfers money to another machine. For this to work smoothly, it needs a unified and tamper-proof network and encryption technology. The technology behind cryptocurrencies such as Bitcoin, Ethereum or Iota plays a key role: the Blockchain. In the area of mobility, Iota could become a central digital currency. This digital form of

payment is based on an advancement of blockchain technology, called tangle, which has many advantages. This solution is so interesting because it is fast and secure, it does not incur transaction costs, and in addition, infinite many operations can take place simultaneously. The bitcoin or the blockchain is different: The more transactions are made, the longer the data chain - and the slower the system. Also Bitcoin transactions were very expensive because of the high demand and the energy costs of the computers last and cost temporarily over 40 dollar.

In Iota or Tangle, on the other hand, the transactions are processed in parallel, not sequentially in blocks, and that only a few computers. And the more transactions take place, the bigger, safer and faster the system becomes. The encryption of a Tangle-based system could even withstand hacker attacks that are performed on supercomputers with quantum technology and which currently employ the Bitcoin community. With that in mind, many experts are currently coming to the conclusion that blockchain technology is too inefficient for the Internet of Things, and that Tangle may prevail in the machine economy of the future. I also see great potential here in view of the many billions of transactions that will occur every day. For example, in this exciting new world of mobility, Iota self-driving vehicles could bill for travel payments, pay parking garage fees, pay for fuel and utility bills, tolls, or garage visits. Autonomous vehicles could thus act like independent entrepreneurs and even independently determine and settle the optimal price per trip depending on supply and demand.

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