



IP ITeaser 077:

Copyright controls Cars

Electric cars are essentially an electric motor controlled by a computer running some software (*i.e.* a modern, archetypical, copyright work). The software controls all the functionality of the vehicle, including all the non-motion elements such as satellite navigation and heated seats. Traditionally, when one bought a car, one selected the extras at the time of purchase, paid the money, and then drove away without any need to transact further with the manufacturer. From a manufacturer's perspective that is bad, because it loses control over the vehicle and so loses any opportunity to make more money by way of future upgrades. Electric cars fundamentally alter that dynamic, because any internet-enabled vehicle can interact with the original manufacturer for ever more, even without the consent of the owner. This allows the manufacturer to add or remove functionality post-sale in return for either a one-off payment or recurring fees (*i.e.* a paid-for software licence). However, consumers are not yet sold on this new model. For example, BMW attempted to charge a monthly fee to activate the heating element that was already installed in its car seats, but the idea was abandoned due to customer complaints. Another example includes the fact that the basic Tesla models have the range and power of the more advanced (and expensive) models, but access to those features is restricted by the software, which presumably could be unlocked on the payment of a suitable fee. Now Skoda (owned by Volkswagen) has launched a new model where certain features (such as satnav, adaptive cruise control and automatic headlight dipping that are accessible from the infotainment screen) are only available on the payment of further on-demand fees. What could be better than allowing your car's functionality to be upgraded remotely? However, maybe a consumer (no longer really just a driver or passenger) would be concerned that the functionality could be down-graded or even turned-off remotely and that might temper their enthusiasm, especially if that occurred while driving. Such de-activation might arise

due to a failure to pay the requisite licence fee timeously, or some other breach of the licence terms (and who reads all the T&Cs?). It could, though, also occur due to a software bug, or be done maliciously by a hacker, or at the behest of a state operator. Big Brother has never been bigger. Oh! for the days of the open road, the wind in one's hair and no cares in the world.