Thanks again for the opportunity to provide oral evidence. I thought the discussions were great but I wanted to add a few more details to my evidence and also include a couple of interesting recent papers which I thought members might want to see, should they have the time.

1. In terms of pedestrians’ understanding of automated vehicles (AVs), there is now some effort by manufacturers such as BMW, Volvo and Nissan (and surely others) to consider communicating their intentions, using lights and words etc. While these are currently prototypes, this area is one which has been largely ignored by research and proves to be a very complicated topic, since cultural, regional and even within city differences in pedestrian and cyclists’ behaviour is a very complex area for human drivers to understand – never mind the sensors and cameras of a AVs. Therefore, standards, i.e. what a green light means versus a blue light, are essential in this context.

2. I think one area currently absent in this field is understanding of the drivers’ attention and state when AVs are active and what would happen if the AV has to hand back control. Some manufacturers have suggested a minimum risk manoeuvre, which involves the car coming to a safe and complete stop, but this is clearly very dependent on the road infrastructure (and quite dangerous, for example on the busy M1!). Should there then be some consideration of camera-based driver monitoring systems for future vehicles at SAE Level 3 and up? Of course there are data and privacy considerations to be taken into account.

I would like to highlight three articles which I believe will be useful to the committee – and my apologies if these have already been identified.

1. The NHTSA Automated Vehicle Policy document
2. A recent Scientific American article by a colleague at UC Berkeley, which I think provides some thoughts on the realistic capabilities of AVs.
3. An RCCO study on how “automated vehicles can influence urban form, congestion and infrastructure delivery”. This paper was reported for Ontario, Canada. It is perhaps a little utopian, but then relays my thoughts on how in the UK, we could use these vehicles a little differently to others, if we consider their benefits, longer term. Although I do appreciate that regular changes in government makes this a challenging ambition!

Author: Professor Natasha Merat, Chair in Human Factors of Transport Systems, Leader, Human Factors and Safety Group, Institute for Transport Studies (ITS), University of Leeds

---
