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Our signals expert discusses traffic management, multimodal/integrated transport, project planning and management

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The term “Traffic Management” turns up in many places in our sector. A new installation (or changes to an existing one) will require TM (cones, signage etc) to be put out (and hopefully later removed).

UK Local Authorities are required to have a nominated Traffic Manager with a responsibility to improve mobility on their road network.

Industry’s Association for Road Traffic Safety and Management (ARTSM) embraces the term in its title.

Given the wide ranging application of the term I will make free with it here. The boundary between traffic management and traffic control warrants a look. Traffic control suggests that an overseeing organisation has tools at its disposal to alter the movement of individual vehicles or alter traffic flows as they want to achieve whatever objectives or targets they are set. Given the autonomous nature of (human) drivers then, beyond traffic signals/lights and lane control signs, there are arguably relatively few tools to ensure drivers do as Traffic Managers want that don’t require the deployment of Traffic Officers or the Police. In the face of this limitation (and I will resist the temptation to segue immediately into Co-operative and Autonomous Vehicles and their effect on traffic) there is a case for seeing TM and TC as part of the same thing.

So then why manage traffic at all? Could we not take a free market economy view and allow it to be self-regulating? If you don’t like the M25 between junctions 6 and 10 at 08.15 on a weekday morning then find an alternative route or means of transport that works better for you. At the other end of the spectrum the command economy model says that you will go where you are told when and by what means and at what speed. As is typically the case, the current reality falls somewhere between the two, attempting to reconcile the benefit of the individual with the good of the many.

We are told that mobility is a key to our economic well-being, our quality of life, and many other things to the extent that some may see it as a basic human right or at least an indicator for determining affluence or poverty.

Now, (it didn’t take me very long) let us look at the advent of autonomous vehicles. The question then seems to be “Whose autonomy?”, or if you prefer, “Where does/should the process or processes that govern route choice and journey time reside?”

Given the historical structure that the UK uses, we are starting with isolated junctions optimising locally, and urban networks optimising in regions and above that at the town or city-wide level, but this compartmentalisation doesn’t accommodate end to end journeys. Does this logically mean that the management of traffic has to happen on an increasingly larger geographical scale? If it does then how does geographical upscaling affect the ability of traffic managers within local authorities to control their own patch? If that local autonomy is retained then journeys will continue to be a series

of boundary to boundary hops. And yes I know that these are matters being addressed within Europe.

But as we extricate ourselves from the EU to what extent does the globalisation of specifications and protocols, definition of ad-hoc wireless networks for V2V and all the rest of it mean that we are still and unavoidably part of a larger international or even supranational set of constraints? If we accept that in other areas, for example online shopping, we are free to buy products from around the planet and have them delivered to our doorstep provided that we have the funds to do so, then does the converse reasoning also apply, that, provided we have the funds to do so we can arrange for ourselves to be delivered anywhere on the planet, whether that is the predictable, modestly priced and relatively local “medium priority” daily haul to a workplace or a one-off urgent and highly charged cross-country dash to an ailing relative or a lazy but lengthy cheap tour of some remote but scenic part of this or another country.

And in each case who decides the trade-off between need and priority, urgency and cost?

In ten or twenty years from now who will really be controlling our journeys?

Reader, my apologies to you. When I set out to write this I hadn't expected it to descend into a near rant on dystopian projections of a further polarised world. Perhaps I am being unduly paranoid, after all politicians that have steered away from direct road user charging will be hesitant to be seen as funding or introducing transportation systems that constrain individual freedoms.

Maybe, in an attempt to lighten the tone, all CAVs will come with a button the user (note: 'user' not driver) can press that says, “It's OK, today I want to drive.”

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