



Beyond Travel?

**Report from a workshop exploring
the future of personal transport**

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1 Introduction

As part of the CREATE project¹, UCL held an evening workshop on 26th April 2017, at which those present were invited to examine the reasons for personal travel and whether recent and ongoing technological developments might lead to significant changes in the journeys we make.

The event began with a set of three provocations, from [Peter Antonioni](#), [Dr Hannah Knox](#) and [Sofia Taborda](#). Then [Nick Price](#) set the scene for the participatory element before inviting delegates to spend some time in groups thinking about possible changes in travel, using a method called the [Futures Triangle](#).

What follows is a hybrid of reportage and subsequent reflection.

2 Humans and moving

2.1 An hour a day

Humans travel for approximately an hour per day on average² and have done for a very long time (Hupkes 1982). This despite truly massive changes in our transport networks and our ability to use them, together with major shifts in our settlement patterns and industrial structures. And, most recently, in technological tools that – some argue – could one day make much travel obsolete.

Contrast the hour per day with the very tired axiom that travel “is a derived demand”. This assertion, combined with the assumption that travel is a source of disutility, tells us that, if our need to travel vanishes, we will cease travelling. And there’s plenty of evidence to support the idea: given the choice, people will take a time saving and may well pay for it (Wardman et al. 2016). But this is only in the short-term; over time, people consistently extend their travel spatially in response to increased speed and end up with roughly the same travel-time budget as before (Metz 2014).

So there’s some truth in both of these characterisations. But our event participants were not convinced that travel would disappear completely. Rather, if today’s reasons for travel disappeared, we would develop new stories to convince ourselves that we weren’t simply travelling for the sake of it. That is, we appear to feel that our travel requires *justification*.

What is less clear is how we would respond if the experience of travel became very much more unpleasant or costly than at present. Is our one-hour budget immovable? This seems unlikely. That said, we are good at reconciling ourselves to the prevailing conditions of travel, be that in terms of the financial impact, the congestion we encounter or other such “negatives”. So travel would probably have to become quite bad for us to stay put.

2.2 Lots of different kinds of travel

Let us not forget that travel is not homogeneous. Many are familiar with the division of travel into work, education, shopping, leisure, visiting friends and relatives, etc. Another way of looking at travel is to differentiate between one-way (migration) and two-way (returning home, at some point); level of repetition (some trips happen only once whilst others may be wearily familiar); and frequency.

¹ *Congestion Reduction in Europe – Advancing Transport Efficiency* (www.create-mobility.eu). This project is investigating the relationship between cities and car use and, in particular, how that relationship might change in future.

² We should not ignore the phrase “on average” because there is a great deal of variation across people and communities. So, if we are asking what technology might do to that hour per day, we should also be asking what it might do to the underlying distribution.

2.3 What does travel do for us?

Cliché it may be, but the description of travel as a derived demand gives us our first answer to this question: travel gets us to the activities, opportunities, pleasures that matter to us. Perhaps preeminent in that list is human contact: as social animals, we rely on travel to bring us into contact with others, both casually (a chat on the bus for those that like such things) and in planned ways (school reunion and so on). There are interesting cases of technology changing this – gamers interacting with each other on-line, say – but the evidence clearly points to an ongoing preference for physical proximity.³ Whilst we may “hate” our commute, it does bring us together with our colleagues.

Our second most significant answer is that travel can bring us novelty. In the simplest sense, this may be new surroundings. But novelty goes deeper: a different location offers different options, perhaps unfamiliar people, processes and cultures. And the complement of this novelty is being removed from the day-to-day drudgery of home life: the dripping tap cannot be mended remotely.

Beyond this, travel *can* bring us excitement and aesthetic and/or sensual pleasure. The view from the window; the physical experience of acceleration; the sense of the vehicle responding to our commands. And some travel takes place in luxurious conditions – how many people catch the Orient Express just to get to Venice?

Travel also provides exceptional opportunities to make statements to the world about ourselves. We can communicate our status, our character and even our values in the way we move. We do not have a host of other chances to make such statements to strangers. If we value these opportunities – and many seem to – how would we respond if/when we could no longer appeal to a journey’s necessity to justify it? Or are we moving to other means of displaying our plumage? Through the smartness of our phones, perhaps. But even the smartest of phones is less prominent and therefore less noticeable than a shiny car.

Remembering our assertions above concerning frequency and repetition of travel, can we discern any relationships? It seems obvious that, in general, the oft-repeated journeys will be those which “get us what we need”, whilst novelty, excitement and pleasure may come from those less frequent, less familiar trips.⁴

3 The quality of the alternatives

Having talked about ourselves and travel, we turn now to the alternatives. Our questions: how effective are the technologies that promise to make travel unnecessary and how effective may they become?

These questions need to be considered in the context of what has already been said: if travel is a source of displeasure, then we would presumably embrace opportunities to avoid it, provided we could still obtain the “utility” that had motivated the journey. If, though, we enjoy the journey or actively wish to be in a different location, it is less obvious that technology has much to offer us. What of the hour per day? This is more complex: we may see technology enabling the less pleasant travel to be substituted by more enjoyable journeys.

The first observation is that we have already recently seen very significant technological change:

³ Data on journey making from the National Travel Survey, for example, shows that people consistently cover approximately one fifth of their total mileage visiting friends (Department for Transport 2016).

⁴ It is probably more complex than this, though, with some people deriving genuine pleasure from time at the wheel, even if the route is very well worn.

- Many white-collar workers can now do much of their work from any location offering a phone signal
- It is possible to avoid a vast proportion of shopping trips through buying online
- What used to be an expensive phone call between distant locations is now a costless⁵ video call

Would not changes of this magnitude be expected to have already prompted massive responses in our travel behaviour? Well, they have and they haven't. People do work from coffee shops, conduct personal and business meetings by Skype and its equivalents, and they certainly shop online⁶, so they have responded to the opportunities provided. Do they travel less overall as a result? Although the recent level of mobility is very close to that of the early 1970s, there has been a modest decrease in the last ten years.⁷

But technology continues to advance: it is not claimed that today's video-call is the same as being *with* your correspondent. Might tomorrow's "virtual presence" be so good as to fool us into thinking we are? This, of course, is hard to say. But it would have to be very good in order for the impression of physical contact (as opposed to merely visual or auditory contact) to prove compelling. Much of our desire to be with our loved ones involves intimacy. For other purposes – a trip to the doctor, say – the motivation is different and we may be satisfied with an enhanced video-call.

There is some travel which virtual presence does not seem likely ever to replace. A rock-climbing trip with friends, for example, seems to depend for its meaning on the collective experience of a physical object to which it is necessary to journey. We can, of course, posit a time when technology will be able to create an entirely convincing virtual experience of a rock-climbing trip with friends. But, as philosophers have for years rejected the notion that we might be "brains in a vat", it seems unlikely that we would submit to this experience without a very good reason. We use flight simulators in order to be able to crash an aircraft without killing people but would we not always rather fly for real?

As for additive manufacturing (or, more colloquially, 3-D printing), this seems less likely to influence personal travel given that many of us can already have the things we desire brought to our door. Our 3-D printer may be able urgently to provide an item that we would otherwise have to go to get but delivery of goods is becoming ever more responsive to our demands so the frequency of such emergencies will probably continue to diminish.

Before we move on, a few observations. First, it is very likely that these "substitutes" for travel will not be evenly available across nations and their societies. The supermarket employee will continue to need to go to the supermarket to work their shift. And certain of these technologies are available at a price that is beyond many. So, even if technology produces a true alternative to travel, it is likely to be the wealthy who can benefit, at least to begin with.

A connected point is that wealth has been expressed to some extent in distance, with richer people able to travel further in order to obtain the best quality or the best bargains, and poorer people having generally less choice. It seems quite likely that alternatives to travel will share this character of offering higher quality (a more realistic impression of lying on a sandy beach, perhaps) at a price to match.

⁵ Having the illusion of being costless, more accurately.

⁶ The profusion of delivery vehicles bringing parcels to us indicates that some substitution of personal travel (in this case, shopping trips) is likely to have negative knock-on effects.

⁷ This is being actively debated: travel time and trips are steady compared with a 1972/3 base but there has been a decrease in the last 15 years (Department for Transport 2016). An adjustment, or evidence that technology is having an effect?

To finish, a question about distance and alternatives. Whilst we can telephone someone who is ten metres away, the chances are that we will go to speak with them in person. That is, our willingness to accept forms of communication that fall short of physical presence is a function of the cost of achieving that presence. Thus, Skype is an impressive tool when we are dealing with someone thousands of miles away but is tiresome if that person is around the corner. Unless and until alternatives are indistinguishable from “the real thing”, we are surely likely to opt for authentic experiences where the costs of doing so are low.

3.1 Opposing forces

Our discussion of how good the alternatives might be needs to take account of two forces that oppose the substitution of travel through technology.

The first is the very substantial industry that enables personal travel. Actively supporting this industry is the belief, often presented as axiomatic, that transport investment promotes economic growth.⁸ However good the alternatives to travel become, this industry will have a vested interest in persuading us to continue to move ourselves. And there seems no prospect of the perceived link between mobility and wealth being broken, given the numerous failed attempts over the years to do this.⁹

The second force, rather less potent, is opposition to certain forms of technology, as espoused by the Neo-Luddites. These and other proponents of the simple life will presumably therefore eschew 3-D printing and virtual presence, the latter because it will “remove people from direct experience of life” (Glendinning 1990). Such people are relatively few so are unlikely to turn the tide but their numbers could swell if significant doubts arose concerning the safety and/or desirability of the technology.

4 A constrained world

We have so far discussed this topic as if we shall all remain free to make choices subject to only personal constraints such as time and finance. National and local governments may feel differently. Initiatives such as decarbonisation can do much to reduce greenhouse gas emissions and air pollution but problems such as congestion prove more stubborn. Cities with growing populations may have little choice but to rationalise the travel of their citizens in order to continue to function. If travel for an hour a day we must, better that this takes place on foot, which is good for public health, than in a motorised vehicle – the city can accommodate many more pedestrian-hours than it can car-hours. Moreover, if those walks are taking place near where people live rather than at their workplace, this may spread the intensity of travel demand, relieving the urban core somewhat.

Governments are generally very reluctant to impose significant restraints upon our movement so may hope that the improving quality of alternatives to travel will do their work for them. But our discussion above suggests they may have to apply a degree of force in any case. What then? If, for example, we reach the point of having personal carbon allowances, how might people trade off travel with other forms of consumption that use up their credits? The technologies we have been discussing may make the substitution of travel more likely, if attractive alternatives do not emerge as readily in other sectors. In another scenario, travel may become prohibitively expensive, in which case the alternatives we have been discussing may become the only way of having certain experiences.

⁸ Prominent UK examples include the Eddington Report (Eddington 2006) and the Transport Select Committee's report on Transport and the Economy (House of Commons Transport Committee 2011) but there are many others.

⁹ For example, SACTRA's considered work on Transport and the Economy (Standing Advisory Committee for Trunk Road Assessment 1999) pointed out that, in certain circumstances, transport “enhancements” could actually damage local economies. Such a nuanced argument is very rarely heard in the general transport policy discourse.

5 Conclusions

5.1 No massive change

Our discussion casts doubt on the idea that we will ever cease travelling even if technology greatly improves. What is more likely is that we will take advantage of opportunities to replace journeys where the travel offers no pleasure and where it is possible to achieve the same ends whilst staying put. Telehealth seems a good example of this. It is also likely that travel carried out for the pleasure of the journey will continue, at least until it is forcibly restrained.

5.2 Substitution – very likely a mixed bag with mixed impacts

But, given some substitution and a working assumption that the highly durable hour of average daily travel will persist, we must ask how these changes will be manifested. The evidence is that people who work at home rather than go to the office make additional local journeys (Andreev et al. 2010). If this change reduces pressure on networks in urban centres, this may be welcomed, especially if the additional journeys are also made using more sustainable forms of transport; but they may well not be.

If and when external constraints make it necessary to sacrifice some of the travel that we willingly undertake (eg to visit friends), where does this lead? It is conceivable that we will reorganise in social terms, returning to a world in which we spend time with people in close proximity, thus reversing a long-standing trend of increasing distance from loved ones (Malmberg & Pettersson 2007). Perhaps virtual reality will provide us with a convincing experience of a beach holiday without the need to leave home. What this cannot do is provide the physical separation that is crucial to the sense of being away. Would people be able to remove themselves from their day-to-day environment for a fortnight in order to simulate “the holiday”? Would not the temptation to “pop back” if only for a few minutes be irresistible? It seems hard to imagine that the two-week “constitutional” could survive this transition to virtual holiday-making.

This raises the intriguing notion of the “staycation” which would not rely on willpower in the same way. Instead, it requires us to make our home environment sufficiently pleasant and varied that we no longer yearn to escape it. Or perhaps we could warm to the idea of local holidays instead.

As for the journeys that we undertake for the thrill, a variety of substitutes may arise, including the simulator and the low-carbon race-car track.

6 Next step – decouple wealth and mobility

Most of this discussion has been predictive in style – what if? It seems appropriate to conclude in a more prescriptive vein, by asking what is desirable.

If we accept the “rule” of an hour’s travel per day, the question then may be how to accommodate that as sustainably as possible whilst retaining the value travel gives us. This is not a new policy question; it is merely now being asked in the context of emerging tools that may make acceptable the substitution (as opposed to suppression) of trips.

Not that this is straightforward: cities tend to speak of pursuing a vibrant economy and a high quality of life in the same breath. They do not acknowledge the tension between the two in transport terms, that a wealthy city is likely to be full of movement whereas a high quality of life is strongly associated with quiet, calm and, by implication, low/slow mobility. As discussed above, the dominant transport discourse reinforces the positive association between mobility and prosperity. But a brave city could break free and dare to redefine its success in terms of reduced movement per head. And this would provide fresh impetus to finding or developing substitutes for travel that do not leave us dissatisfied. Any volunteers?

7 References

7.1 Slides from the event

Peter Antonioni – <https://www.dropbox.com/s/dsam4unq275sg0x/Antonioni.pdf?dl=0>

Hannah Knox – <https://www.dropbox.com/s/wm3c5dlzeyjmi0b/Knox.pdf?dl=0>

Nick Price – <https://www.dropbox.com/s/ndd9ydfyk4zbcx/Price.pdf?dl=0>

7.2 Literature cited

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Wardman, M., Chintakayala, V.P.K. & de Jong, G., 2016. Values of travel time in Europe: Review and meta-analysis. *Transportation Research Part A: Policy and Practice*, 94, pp.93–111.