

Public transport in the UK: Hold Very Tight Please! Ding! Ding!

Author: Peter Tomlinson, Iosis (pwt@iosis.co.uk)

Date: 19th April 2016

File: Tickets (7) Hold-very-tight-please.docx

This paper was drafted before the 31st March closedown of the Dept. for Transport's Smart Ticketing team... It is published here in only slightly amended form.

Richard Poynder, with whom I recently had dinner in Bristol on the eve of the Smartex 2 day ITSO and general smart media training course, likes us all to be very serious when writing about business. But we all have a life, so...

In my childhood we lived for 3 years in North Yorkshire, and, for the first 2 of those years, I went to school, not in the village, but at the near edge of the market town 3 miles away. To school and back was by United bus, single deck with open rear platform. There was a bus stop in the village. More stops along the route, and a stop outside the school which was at the edge of the Market Town. On a Friday, which was Market Day, the few of us who got the bus home to my village had to rush out of school at the end of lessons and run all the way to the Market Square to be sure of getting on the bus which would be crush loaded when it set off and so could not pick us up outside the school... The conductress always pushed us kids on – and was unable to collect any fares until a few passengers reached their destinations and got off. So we got a free ride. And thereby I gained a bit of money to spend in the shop (which was actually my mother's shop, in which at times I had the strange experience of selling packets of 5 Woodbines to local farm workers on their way home – and mother used to cash their meagre pay cheques, paying them in at the bank in the Market Town).

Fast forward 60 years, then continue past today with its crush loaded commuter trains on some lines, and carry on to current Transport Minister Claire Perry's 2022 nirvana, wherein the vast majority of users of public transport will have and use secure smart devices... Long before then, surface and sub-surface public transport must be recognised as an essential service to the public, a service that has to be operated at the quality level appropriate for this great country.

The aim, at the early March 2016 checkpoint at which this paper (7th in the series) and the 8th paper were first drafted, was for this series of short papers to trigger enough people, all the way from users of public transport, through politicians, through technologists, through suppliers, through operators, through financiers and on to government officers, to make the 'Almost Always Connected' multi-modal concept deliverable, and then deliver and operate it. And do so in a way that still delivers a good experience to those who do not have a functioning smart device and/or have other reasons for needing a different manifestation of 'permission to travel' and associated journey details. And also to incorporate the freedom to participate in the development and operation of new personal mobility schemes - see the Annex [1] below.

Talking recently to a university educated lady who has a managerial job in Bristol, does not drive a car, and wants to regularly visit family who live 80 miles away, I asked her if she would like to have one ticket that takes her all way from the bus stop near her home in Bristol to the bus stop near the family home. Her eyes lit up as she said 'yes' very firmly. Currently, her journey each way involves 2

legs by bus and 2 or sometimes 3 legs by train – 3 tickets to be purchased. Delivering the convenient *and guaranteed best value 'Door-to-Door' single ticket* experience by public transport, often multi-modal, perhaps using several operators, is something that cloud computing environments and excellent internet connectivity are making cost effective. Each operator and ticket seller will be able to have a secured presence in one or other cloud computing environment, and there be able to 'join up the dots' of a journey across several operators and one or more IT cloud service providers.

On 7th March when this paper was drafted I had been reminded that it was a Ray Tomlinson who in 1971 invented email. I am not claiming to have invented the concept described in this series of short 'Almost Always Connected' papers. Instead I have been trying to show that joining up the existing and emerging dots will unify a journey experience that is currently fragmented for far too many people. To improve it we need skilled and co-operating organisations for development and delivery; in the public sector we need understanding of business planning, delivery of some of the finance for the 'connected' infrastructure, and above all the expertise to drive delivery. Across the operators we need delivery based on a sound business case. From the financiers we need development support for operators and technical service providers. As indicated earlier in this series, I recommend that an enhanced ITSO Ltd should be funded to have development, educatory, and oversight roles, and (on behalf of the Crown) a continued regulatory role.

© Peter Tomlinson 2016.

This document may be freely used and distributed as long as the author is acknowledged.

Iosis Associates

15 Good Shepherd Close, Bristol BS7 8NF

0117 370 6313

pwt@iosis.co.uk and peter@salendine.plus.com

Peter Tomlinson t/a Iosis Associates is a Member of ITSO Ltd and has been since the beginning. He was also a Director of the Company in its early days (due to a clerical error, for a period of time it had twice as many Directors as was originally intended).

Annex

<https://www.transportextra.com/publications/local-transport-today/news/48305/get-set-for-a-new-transport-model>

Get set for a new transport model

City authorities and transport providers need to make the transition to a personalised, user-focused mobility system, writes George Hazel

07 March 2016

Global trends are disrupting traditional ways of providing services to people and businesses in urban areas. Smart mobile in combination with the Cloud will provide mobility packages

to meet an individual's needs and values. This emerging market is attracting non-traditional players who have the skills and expertise to provide such services.

These changes will bring huge benefits to users and cities, but also disruption and threats to existing business models and governance. Whoever owns the customer in this new model has the ability to nudge users in any direction and sell a range of products and services to users and cities.

In the future we will have a system that is driven from the user up. This takes us into the world of co-design, incentives and loyalty programmes, and back office systems that provide the user with one account for all services. City authorities and transport providers will need to create an interface between their strategic aims and objectives, driven from the top down, and the user-focused, seamless and personalized model driven from the ground up.

These trends are already happening across Europe, North America and Asia. They will have significant impact in several ways:

- Infrastructure will be connected through the Internet of Things. The Connected Car will be able to talk to smart street furniture, control centres and users. There will be no need for expensive signing gantries. People will have individual mobility packages that will guide them through the city, offering choices and updating the status of the systems.
- Autonomous vehicles will arrive within the next 10 years in complex urban scenarios. This will have a huge impact on city life. For example, an OECD [Organisation for Economic Co-operation and Development] study in Lisbon in 2009 concluded that if every car in the city centre was autonomous and shared we would only need 10% of the current number of cars and would need no local public transport services. Imagine the impact of this on congestion, pollution and land use as large areas of car parking are released.
- Freight logistics will be impacted in a fundamental way. Vehicles will be driverless, with intelligent routing making the system much more efficient and the last mile will be transformed. For example, there are projects in Sweden to deliver packages to parked cars when the owner isn't present. This saves money for the delivery agent, generates income from the customer and reduces congestion and pollution.
- The shared economy will mean that the ownership model will change to a pay-as-you-go model. Auto manufacturers are already changing their business model to cope with this. The emergence of Uber, Hyacar, Lyft, etc. combined with community car clubs, car hire and bike hire will see the demise of many local bus services. This will save money for local government, provide a better service for users in the city and surrounding areas and also change the design of the urban streetscape.

City management will benefit from these new models. Whoever owns the customer can offer incentives to manage supply and demand, incentivize users to shop in different areas, walk more, travel at different times, etc. However, to enable that to happen the business and governance models need to change. A vertical, siloed approach to services will not work. The new world of user-focused services cuts across all sectors and departments.