A matter of time use

Glenn Lyons, David Holley and Juliet Jain

Introduction

It is evident to the casual observer travelling on the British rail network that fellow travellers are occupying their time with a range of activities – including work. The significance of such time use has tended to be overlooked in transport studies and in the economic assessment of time spent travelling and investment in measures to save such time. In transport studies, travel has traditionally been seen as a derived demand (Tipping, 1968) – derived from the need or desire to participate in activities that are taking place elsewhere. As such, travel itself is seen as a cost. In the context of travel during the course of paid employment, travel time is seen as wasteful – time which could otherwise be put to productive use to the benefit of the employer and economy. Taking the case of individuals travelling on business by rail, this chapter examines travel time use and whether or not the time is indeed wasted. It draws upon a mixed-method research study of 'travel time use in the information age' funded by the UK's Engineering and Physical Sciences Research Study between 2004 and 2007.

The chapter illustrates, with reference to focus group discourses, how the environment of train travel can represent an ideal mobile workspace. Response data from the National Rail Passengers Survey serve to offer a national snapshot of how business rail travellers use and value their time and to highlight therein the place of mobile technologies. An ethnographic account of how rail travellers manage time and space is examined – an approach which reaches beyond what a survey can achieve in connecting with the *experience* of travel. A diary-interview approach explores, at the level of the individual, the place of travel time use in the wider (working) day. The combined approaches reveal travel time use to be a complex interplay between activities and technologies with the boundaries between work and leisure less well defined than the terminology 'business traveller' might initially indicate.

Transport appraisal and the business traveller

Mackie *et al.* (2003) consider two types of business travellers – those whose travel is an integral part of their jobs (e.g. service engineers, delivery people,

public transport drivers) and employees travelling in the course of business (termed 'briefcase travellers'). This chapter concerns itself with the latter. However, for both types of business traveller, the same principles are applied when the cost effectiveness of government investment in transport schemes is assessed in transport appraisal. The focus is upon travel time savings rather than travel time *use*. Business travel time is seen as time which, if it can be saved (i.e. the journey duration is reduced) will be converted from unproductive time to productive time (Holley et al., forthcoming). This saved productive time is assigned a monetary value which in essence is derived from the average wage rate of business travellers who use a given mode of travel (DfT, 2004). An hour of rail business travel time is costed at £36.96 per individual (ibid.). In contrast, an hour of rail travel time for commuting is costed at only £5.04. All other rail travel outside the course of work is costed at £4.46. These lower values reflect the travel taking place in an individual's own time rather than her employer's. The values are based on averages of individuals' willingness to pay for saved travel time – values estimated using stated preference surveys.

Thus slower journeys are seen as a greater hindrance to economic productivity than faster journeys and, accordingly, huge investments have been made to speed up travel. Such investments have seemingly ignored the possibility that travel time may not be (as much of) an economic burden as supposed. Although there have been a number of critical examinations of the validity of treating travel time as economically wasteful (see Holley *et al.*, forthcoming; and, for example, Harrison, 1974; Hensher, 1977; Fowkes, 2001; and Mackie *et al.*, 2003), this core assumption has remained in force in transport appraisal for some 40 years. At the same time, there is an acknowledgement that

the opportunity to use travel time productively can be expected to impact on the value of time, and in this respect the advent and widespread ownership and use of mobile phones and the possibility to use laptop computers on some modes may have had a significant downward influence on the value of time. Future developments may further increase the quality and quantity of useful activities which can be undertaken whilst travelling.

(Mackie et al., 2003: 50)

Observations such as this act as a prompt for this chapter to examine more closely the use of travel time itself with a view to bringing into question whether transport appraisal should account for this.

Mobile work in a technologically enhanced world

It is evident that business travellers *do* incorporate work activities into their journeys from the limited social science research in this area (Letherby and Reynolds, 2003, 2005; Laurier and Philo, 1998; Perry *et al.*, 2001; O'Hara *et al.*, 2002; Brown and O'Hara, 2003).

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Mobile technologies can now assist in reproducing the connections and data

sources generally experienced in the office environment, which allow for a suitable degree of flexibility in the organization and timing of activities or work tasks (Holley *et al.*, forthcoming). Laptops (and other mobile devices such as personal digital assistants (PDAs)) make it possible to carry and access much larger amounts of information and resources than previously possible, and the mobile phone facilitates access to colleagues and information located elsewhere. Thus a relatively confined travelling space can be transformed into an environment more akin to the office (see Laurier and Philo, 1998; Perry *et al.*, 2001).

In the case of the car, the passenger seat becomes a storage and retrieval space for documents and samples, while the mobile phone connects the mobile worker with the office and clients, allowing rearrangement of schedules along the way (Laurier, 2004). Travel time use contexts and the relevance of supporting technology artefacts can vary across different modes and at different points in a journey. Brown and O'Hara (2003) found that, while many travellers carried phones, laptops and PDAs, emails were only read online where reliable connections could be made, and paperwork was often used on trains and planes. The redundancy of mobile technologies, such as on a plane, gave some business travellers time to concentrate on reading lengthy documents that they had saved for the trip without the interruptions that occur in the office. Thus, travel time can also open up opportunities for tasks that may suffer from a time squeeze in the office.

A key consideration emergent from the cited work above is the way in which travel time use is planned and appropriated, whether employing new mobile technologies, or more traditional paper-based means, in relation to a range of tasks that need completing as part of a person's job role. Management of the journey time forms an intrinsic part of overall time management and task allocation, reflecting a pre-industrial taskscape concept rather than a structured notion of time organization (see Ingold, 1993; Adam, 1995). This is reflected in the qualitative research below, and is implied in the later quantitative survey evidence.

The ideal mobile office

Focus group research indicated that train travel was perceived as an ideal environment for working compared to other modes. Six gender-defined focus groups were conducted in London, Bristol and Cumbria. The selection of focus group participants aimed to represent a cross-section of age, social class and travel mode (car and public transport users), and to include some people who take mobile information and communication technologies (ICTs) with them on journeys. Since few of the women recruited travelled by train for business purposes, the narratives presented briefly here have a gender bias. The focus group discussions aimed to capture a wide range of travel experiences and the use of mobile ICTs.

Train travel generated an idealized notion of 'potential to work' based on the journey duration and the expectations of the travel space. A business journey

was usually *envisaged* as long (i.e. one hour +), and often to and from London. From participants' experience of inter-city travel, the presence of tables and therefore space to work was assumed with scope for accessing a laptop (in contrast, perceptions of a bus journey aligned with much more restricted space). Discussion nevertheless acknowledged that train journeys could vary – not always affording the availability of a table and, in contrast, sometimes presenting the individual with overcrowding, limited space and activities of other passengers all reducing the potential for work. This said, participants also *compared* the train and office environments with suggestions that the former could be more conducive to effective working than the latter – a travel space of welcome retreat. As Brown and O'Hara (2003) indicate, being away from office interruptions can facilitate time for activities that require concentration, such as reading lengthy documents.

However, the potential to work on business travel does not necessarily lead to 'all work and no play'. Rail travel was seen as an opportunity to intermingle work with rest and leisure (see also Jain and Lyons, forthcoming):

JAMIE: I sometimes have to go to head office which is down at London so it's quite a long journey so I kind of do a bit of everything, try to snooze, try to relax, every now and again I try and do a bit of work but I normally steer away from that where possible, unless I'm really busy ... I've just got time for myself and time to catch up work and studying and ... just catch up with friends sometimes as well [by mobile phone] (Cumbria).

Only one (male) participant across the groups indicated any sense of *obligation* to work for the duration of a business journey. It appears that individuals are judging for themselves how to get the most value from the journey time – engaging in and moving between 'tasks' (including the task of seemingly doing nothing) which relate to their well-being and work commitment.

How then might these initial qualitative insights relate to a broader national picture of business rail travel time use?

Surveying Britain's business rail travellers

To address this, the authors had the opportunity to design a set of questions on travel time use for inclusion within the autumn 2004 wave of the longitudinal National Rail Passengers Survey. This survey takes a snapshot of rail travel across Great Britain, focusing upon the specific train journey immediately following the receipt of the paper questionnaire by a prospective respondent. The survey distinguishes between individuals travelling by rail for commuting, business and leisure. The response sample for autumn 2004 was 26,221 with survey results weighted to be representative of national passenger rail. For information on the survey methodology and a more detailed discussion of the findings, see Lyons *et al.* (2007).

Table 6.1 highlights the most prevalent time uses of business travellers and

Activity	Spent most time (%)	Spent some time (%)))	I made very worthwhile use of my time (%)	thwhile %)	I made some use of my time (%)	My time was wasted time (%)
Working/studying Reading for leisure Window gazing/people watching Talking to other passengers Sleeping/snoozing Text messages/phone calls – work Text messages/phone calls – personal Eating/drinking	31 33 5 3 3 3 1 1	51 53 13 13 22 13 21 21 21	4	42 23 12 24 15 39 26		54 58 56 57 80	2 2 2 2 2 2 2 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 1 1 2 2 2 1 2
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Table 6.1 Travel time usage statistics (from UK National Rail Passenger Survey, 2004)

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Notes Specific activities upon which business travellers spent most or some of their journey time (percentage of business travellers) and the corresponding assessment (per-centage of relevant respondents) of the journey time use by those spending most time on a given activity. Not all activities offered in the survey question are included in the table – only those that were selected by at least 10 per cent of respondents for either most time or

some time.

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reports subjective assessments of the 'value' of the journey time. The results indicate the diversity of time uses. 'Working/studying' is the activity most *obviously* aligned with economically productive use of employers' time and is the single most prevalent activity upon which most travel time by a business traveller is spent. Correspondingly, almost all individuals engaging in this as their main activity on the journey judge the travel time to have been of at least some use. Intriguingly, the majority of business travellers represented in the table rejected the suggestion that their travel time was wasted with indications instead of some subjective benefit. Indeed, though not shown in the table, only 9 per cent of business travellers spent some time being bored on the journey (with only 1 per cent spending most time being bored). In one sense this may bring into question the assumption made in the economic assessment of travel time that such time is wasted.

However, the assessment of 'worth' of travel time reported is that of the travelling employee and not their employer. More than one in ten business travellers who spent most time window gazing/people watching considered that they had made very worthwhile use of their train journey – would/should their employer agree; and was this worthwhile use in a personal well-being and/or work productivity sense? Hence the question remains – has the time for business travel been unproductive for the employer; or, in the absence of the journey or with a shorter duration journey, would the employee have been more productive overall?

Answering such a question was neither an intention or possibility within the confines of the quantitative survey. However, as findings from other methods reported elsewhere in this chapter suggest, the answer to the question is neither clear or straightforward to obtain. Indeed the ownership of business travel time itself is not clear as might be otherwise suggested by the approach to economic assessment.

What is clear, however, is that for some (at least a substantial minority of) business travellers, the environment of the train carriage is able to be put to good use. Indeed, the vast majority of business travellers considered the train an office on the move -86 per cent answered 'yes' to the question 'in terms of your paid employment is there some work that could easily be undertaken on the train?'.

The significance of mobile technologies to the time use of rail business travellers was also briefly examined. one in five individuals had a laptop with them and one in ten had a PDA. Meanwhile, three-quarters had a mobile phone. Less than half of individuals with such mobile technologies used them during the journey. Three-quarters of those who had laptops and had used them thought that electronic devices made the travel time a lot better and 87 per cent thought that they made the time seem to pass more quickly. The views were similar for those having and using PDAs but less widespread for mobile phones. From these results it seems that mobile technologies are not (yet) pervasive in travel time use nor always essential accessories for time use for those who have them. However, they can add to the flexibility of how time *can* be used and, when they do align with tasks an individual wishes to perform, it seems that they prove valued.

While this large-scale quantitative survey can go some way to illuminating the heterogeneity of business travel time and indeed highlighting the often 'productive' nature of time use, the results offer, at best, only limited explanatory power. While space for time use questions in this particular survey was a limiting factor, as this chapter seeks to demonstrate, other research methods are (also) necessary to begin to assemble a more complete picture of how and to what end business travel time is used. The next section introduces insights from travel ethnography.

On the edge of the working day

First class on the 06:00 train from Newcastle to Kings Cross (a Wi-Fi-enhanced GNER Mallard train) epitomizes the 'ideal business journey'. There is table space for working; the majority of travellers spend two to three hours on the train; and laptops can connect with the online world. While the spatial configuration of this train is unique to the route, thus potentially providing an experience somewhat different to many standard class journeys, the narrative presented from this research illustrates that travel time use is fluid throughout the journey, responding to contextual relationships of place, time, technology and obligations. The researcher (Jain) travelled five consecutive days as a passenger on this route, while observing the activities of other passengers and staff in the immediate area visible from her seat. The aim of this ethnography was to observe how people order time and space for the duration of the journey, and the interaction between electronic mobile devices and other carried objects such as documents, maps and diagrams. The following paragraphs draw upon Jain's field notes.

First class is serviced by a continuous supply of food and drink brought to the seat. This servicing structures the spatial and the temporal organization of the carriages and the intersection of work and nourishment. Thus, the laying out of personal objects to be used during the journey has to contend with the breakfast layout for table space – constraining the environment for working (see Figure 6.1). Many read *The Times*, which is handed out free, as they wait.

'Brian', a middle-aged man who sits across the aisle from me, refuses the paper and starts the journey working on his laptop. As there are internet pages open on his screen I assume he is using the Wi-Fi connection. He starts with room to spread possessions out across adjacent seats, but is interrupted by break-fast. He moves his computer when his [breakfast] plate arrives. He doesn't quite know what to do with it and then moves the cutlery in the seat opposite and repositions it. A working breakfast!

Arguably, the servicing of space constrains the opportunities to work, but travelling this early consumes personal time. Thus, the servicing of personal time at home is shifted to the train. Breakfast and catching up on the news is relocated in space, if not in time.

As the breakfast plates are cleared and newspapers are put away, work becomes the central focus. As most people travel solo, there is little noise from

the passengers. I liken the atmosphere to a library or subdued gentleman's club – most passengers are men. There are few phone calls despite phones being strategically poised on the tables, and calls that occur are reporting into home. The available space for working is still limited, despite being more than 'stan-dard class'. On one journey a man opposite me moves tables – he tells me 'more elbow room' (Figure 6.1).

Most people work with documents. Some carry printed-out emails, which they read and annotate, and occasionally co-workers share and discuss documents and plans. The lowest technology offers reliability, travellers tell me, concurring with the other studies of mobile workers. Perhaps too, documents are more flexible in this space, and the lack of phone calls early in the morning enables greater concentration (see Brown and O'Hara, 2003). A few passengers also have laptops, but not many exploit the Wi-Fi potential.

'Brian' is typical of those travellers negotiating documents and a range of mobile technologies. As the journey progresses, Brian moves between activities, and reorganizes and contracts into his space as others joined his table at the various stops. The laptop is awkward and it moves from the table to balanced between lap and table, and back to the table. The space is seemingly slightly less than the ideal, and productivity seemingly discontinuous as he flits between mobile technologies and gazes out on the world.

Fellow travellers fluctuate between spans of concentrated effort to window



Figure 6.1 'More elbow room' negotiates breakfast crockery.

gazing, watching others, responding to the constant offers of tea and coffee and checking their phones for messages. This restlessness and flitting suggests that even in the most idealized journey space, i.e. first-class rail, assumed sustained concentration is an unnecessary myth. There is a need to make breaks and intermingle business with relaxation and play. Some travellers are obvious in their withdrawal into leisure time with iPods (or similar), DVDs and leisure reading, and only rarely does a passenger spend the entire journey gazing out the window and watching others, although a few do sleep.

As we move towards London and 'office hours', the 'work' calls begin and people orientate themselves into the working day. There are rituals of ordering, sorting, packing and connecting. In the final 15 minutes, as the train moves through the London suburbs, where delays sometimes occur, there is a sense of suspended time – a legitimate time to idle or fritter. Mobile phones are rarely packed away, but are poised just in case, then picked up at the last moment. A few people continue to work for a few minutes after arrival and then quickly pack bags as the train crew clean up around them.

Directly observing and sharing in the environment of others travelling extends an understanding of the earlier 'facts' from the survey data. It enriches an appreciation of how the travel space is managed along with the use of mobile technologies. The organization of space and time is constantly constrained by others – passengers and staff. However, people still manage to work and negotiate the constraints (as they may do in other work environments). Other activities, especially eating, are incorporated into the flow of work, rest and play, indicating that time use is seldom neatly partitioned and that the distinction between productive and unproductive time and those tasks which may contribute to both is not easy to make.

Travel time and the working day

The preceding methods have focused upon the journey time itself. However, it is important to appreciate journey time use (and understand it) in the setting of the travellers' overall working and non-working lives. This has been attempted via another methodology involving case studies of individuals. For each case study an initial in-depth one-on-one interview served to establish contextual information followed by the participant completing a diary record for two full days, one based at the normal place of work and the other involving business travel. This was followed by a further interview to discuss the recorded events and allow the participant to enrich her personal account of time use in the working day.

One such 'case study' is that of Alice, who manages an organization-wide electronic library system. The job role itself mainly involves answering queries by email and can be (and currently is being) done almost exclusively from a laptop at home. From the initial interview and a diary kept on a working day without business travel, it became clear that Alice has attempted to implement a rigid time structure to her working days starting regularly at 8.30 am and finish-

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1	ing at 5 pm with an hour break for lunch. From the diary and subsequent discus-
2	sion it was then possible to compare this day and its time uses with a day in
3	which she travelled by train from Bristol to Exeter to attend a training session:
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5	ALICE: 7.55 I was on the train, read the paper for five minutes, I looked out the
6	window for a total of ten minutes, and for a total of 55 minutes, aren't I
7	good, I prepared for the day.
8	RESEARCHER: In terms of when you would have read the paper, would that have
9	been as soon as you got on the train?
10	ALICE: Probably, first thing I did yeah
11	RESEARCHER: And then looking out the window, was that in a ten-minutes
12	chunk?
13	ALICE: No that wasn't in a block it was just in-between, it was probably whilst I
14	was thinking about things.
15	RESEARCHER: [] as soon as you got on the train you read the paper for a bit
16	?
17	ALICE: [] yes definitely, [] the reason I did that, that way round, is probably
18	because when I find a seat I want to be sure that it's going to be quiet, that
19	I've got a decent window, that I can look out, and it's only when I'm sure
20	that I'm comfortable that I get all my work documents out.
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22	Each of the case studies yielded a different insight into the unique ways in
23	which people organize and adapt their travel time activities to fit in with their
-24	working and non-working lives. However, like Alice, (and possibly as a result
25	of completing the diary) all of the six case studies that involved business travel
26	by rail (other case studies involved business travel by car, as a driver and as a
27	passenger, and by plane) involved conducting work-related activities while
28	travelling.
29	In common with the literature and focus group findings, the tasks chosen
30	were often ones that it was thought were not possible while 'in the office' due to
31	other demands and distractions. Again this was true of Alice, who read the train-
32	ing manual for the day ahead. This was valuable preparation and allowed her to
33	glean more benefit and enjoyment from the day. Had there not been a need to
34	travel for the training programme, this preparation would not have occurred due
35	to the demands on Alice (in common with most of the other case studies) to con-
36	stantly be checking, reading and replying to emails. Conversely, this is also
37	something which technological advances are making increasingly easier while
38	travelling, which, on this occasion, would have been to the detriment of Alice's
39	productivity.
40	Alice's organization of time would also mean that a shortening of the journey
41	would not have reduced what would be referred to in appraisal as 'unproductive
42	time' (i.e. the newspaper reading and window gazing), which was used as a
43	buffer period prior to working.
44	Alice's return journey furnished a very different picture of business travel
45	time use:

ALICE: Got on the train at twenty-five past five ... oh dear, looks like I wasn't very productive ... I think I was pretty shattered actually, so I listened to my iPod, and read the *Metro* paper ... and the train magazine, that's pretty desperate isn't it, those magazines you get on the train about film stars, I think I must have been really tired.

In contrast to the outward journey, the return journey did not involve any workrelated activities. In common with many of the other case studies, with nothing specifically planned, Alice conducted less intensive activities on the journey home (although Alice, and one other participant, maintained a pile of workrelated reading material in the office from which items are taken when going on train journeys). In this instance technology was deployed, not for productivity, but to help relax after a busy day, with the iPod providing a way of isolating Alice from the surrounding world in a 'privatised auditory bubble' (Bull, 2005), which reduces the impact of external and (due to tiredness) unwanted, stimuli.

When describing her desperation in reading the train magazine, Alice shows some guilt for not conducting any 'productive' activities – perhaps the wasted time considered by transport appraisal. However, Alice's guilt would appear to be inconsistent with her usual work time organization in the office. She had already achieved a full day's work on this business travel day (in terms of hours) and had had a meeting rather than her normal hour lunch break. Other participants felt that they worked and achieved a sufficient amount at other times to be able to travel for business purposes without any obligation to work, especially if the return journey extended beyond the normal working times. This fits with Alice's experience, where the travel time had not affected the time spent working and a reduction in the travel time would have led to increased time at home conducting household and leisure activities (for which she felt there was insufficient time). It was therefore personal time rather than work time that was being sacrificed (recall the different monetary values of time referred to earlier in the chapter).

By looking at the travel time in the context of the entire day it was possible to see that for this particular day it was the only time without any demands, which may indicate a value even if it was not perceived by Alice. This could be either a value in terms of her personal well-being, providing a break and time to mentally adjust between work and home life; or it could have some productivity benefits, allowing time to process, at least subconsciously, the information that had been collected throughout the day (see Csikszentmihalyi and Sawyer, 1995 and Holley *et al.*, forthcoming).

Conclusion

Business travellers shape their train journeys around their individual needs and in response to the available space and the technologies and artefacts that accompany them. Travel time has a loose structure around potential activities and tasks. Travellers often 'equip' themselves for a range of task options for a

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journey, but the actual tasks or series of tasks engaged in and intertwined is determined once the context of the journey is established. In particular, the time of day, direction of travel and the pressing need to complete tasks impact on concepts of 'productivity'. It is apparent across the data generated by the different methodologies, that business travel time is an opportunity for working, but it is not consistently dedicated to work output.

Journey beginnings and endings play a specific role as the ethnography and diary interviews indicate. The short period leading up to and just after departure is the settling in and sorting out time, like the planning for the day ahead in the office. Packing up takes a similar role of preparation for the next stage of the journey. Such time can (now) be given to mobile communication – personal and work-related phone calls, perhaps reflecting an activity that can usefully fill a shorter period.

For many business travellers the outward journey, if not the return, is considered an opportunity to work. Thus, we see travellers coming prepared to do work, and valuing this time use. Yet the selection of tasks can often remain very paper-based, despite the increasing potential of mobile technologies to connect beyond the travel space. Paper remains reliable, and is sometimes more manageable in negotiating table space, especially in constrained circumstances, and, as other research indicates, dedicating journey time to reading tasks can be worthwhile.

Most mobile technologies incorporate the dual role of work and leisure, and the qualitative data indicates that people select DVDs to take on journeys to watch when they do not feel obliged to work. Games are available on most mobile technologies and occasionally entertain the business traveller. The various music systems are more specific in the direct withdrawal from the travel space in order to relax as indicated by the travel ethnographies and diary interviews. The business journey, therefore, is not always dedicated to work and sometimes facilitates leisure or relaxation time. Attempting to evaluate the productivity of travel time is likely to be problematic due to the fluid movement between activities on the move.

The chapter's intention was not to directly challenge the established treatment of travel time in transport studies and specifically transport appraisal. However, the insights it has revealed from a variety of research methods certainly suggest that travel time use has a significance in our lives (working and personal) and is intertwined in such a way so as to bring into question whether such a stark and simplifying treatment of its value (or the value of saving travel time) can be fully justified.

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