

Work travel, knowledge industries, and the environmentⁱⁱ

Abstract

This article is a part of an ongoing PhD-project at Aalborg University which draws the attention towards so-called 'knowledge industries' as transport-generating enterprises. The national and international statistics show that air-traffic and international work-related trips has increased enormously during the past decades. Because of the more aggressive impact of CO₂ emissions in the higher strata of the atmosphere, their threat to the global climate from aeroplanes is more serious than what is the case for similar travelling distances at surface level. In this article I hypothesize that there is a connection between aeromobility, knowledge industries and environmental impacts. The object for this article is therefore to examine the driving forces, mechanisms and patterns of meaning beyond the increased international long-distance work-mobility. Such mobility practise is what I term highly aeromobilised. To do so, the article draws theoretically on 'sociology of mobility' and empirically on a case study that involves two Danish cases from the 'knowledge enterprises'. The main point in the article is that it is necessary to understand the social basis for long-distance work travel and to rethink central concepts of travel, tourism and working life to understand and describe this kind of international mobility in the knowledge industries. The boundary between work and tourism, work and play, pain and pleasure is not distinct and there is a very complex connection between travel, work, tourism and play in the knowledge industries. The article therefore ends up by arguing that policy and planning have to understand this complex social relation when tools to ensure 'sustainable mobility' are discussed in the future.

Keywords: Knowledge industries, international work-mobility, aeromobility, working life, networking, tourism, sustainable mobility

If our lives are dominated by search for happiness, then perhaps few activities reveal as much about the dynamics of this quest – in all its ardour and paradoxes – than our travels. They express, however inarticulately, an understanding of what life might be about, outside the constraints of work and the struggle for survival (Alain De Botton, The Art of Travel)

Introduction

This article is a part of an ongoing PhD-project at Aalborg University which draws the attention towards so-called 'knowledge industries' as transport-generating enterprises. The national and international statistics show that air-traffic and international work-related trips has increased enormously during the past decades. Because of the more aggressive impact of CO₂ emissions in the higher strata of the atmosphere, their threat to the global climate from aeroplanes is more serious than what is the case for similar travelling distances at surface level. I hypothesize in this article that there is a connection between air-travel, knowledge industries, and environmental impacts. The object for this article is therefore to examine the driving forces, mechanisms and patterns of meaning beyond the increased international long-distance work-mobility. The main point in the article is that it is necessary to rethink central concepts of travel, tourism and working life to understand and describe this kind of international work-related mobility in the knowledge industries. The boundary between work and

tourism, work and play, pain and pleasure is not distinct and there is a very complex connection between travel, work, tourism and play in the knowledge industries. The article therefore ends up by arguing that policy and planning have to understand this complex social relation when tools to ensure 'sustainable mobility' are discussed in the future.

The phenomenon of international work-mobility has carried out a great part of the total travelling around the world and often such long-distance work-mobility is carried out by aeroplanes. In this article I term such practise aeromobility. The national and international statistics show that aeromobility has increased enormously during the past decades. There are 4 million air passengers each day, 1,6 billion air journeys each year and at any time there are 300,000 passengers in flight above the USA (Urry 2003c:157). Within the EU alone air traffic expressed in passenger kilometres has increased by 50% over the past ten years (Transportrådet 2001:7). The national statistic shows that air-traffic between Denmark and foreign countries have increased markedly within the past decade in both numbers of flights and passengers. The number of passengers on international flights has increased with 78 % and international starts and landings with over 100% from 1990 to 2001 (Danmarks Statistik 2000, 2002). According to a Danish survey from 2001 40% of all air-traffic has a work-related purpose (Transportrådet 2001:4).

Long-distance international work-mobility is especially related to the so-called 'knowledge industry' - high-skilled organisations that are a player in what has been described as the new globalised, knowledge and network based economy (Castells 1996:77). I use the term 'knowledge industries' in this article because it marked a shift in relation to the traditional Fordist industries and Fordist labour market. Knowledge has of course always played an important role in industries but today we face that units or agents in the new economy fundamentally depend upon their capacity to generate, process, and apply efficiently knowledge-based information (ibid.). The employees in the knowledge industry has been named the 'creative class' (Florida 2002) or the 'knowledge workers in the net sector' (Wittel 2001:53), and it is a group that includes scientists, engineers, architects, educators, writers, artists and entertainers as well as many sorts of traditional businessmen working in new and different ways. They are members of the new economy's labour market, whom as many authors has pointed out can be characterised by 'a flexible behaviour' and employees that, compared to earlier generations in the industrial society, is liberated from check-in watches, production lines and monotonous routines (Sennet 1999, Eriksen 2001). Furthermore, as I will show in this article, the employees working life is characterised by a high level of long-distance international aeromobility as well as a high level of virtual communication. The employees in the knowledge industry are often travelling; daily sending and receiving numbers of e-mails and having mobile phones that are expected 'always to be on' and the working life is highly *aeromobilised*. International aeromobility is highly embedded into the growth of transnational networks and globalization of economy (Graham 1995:99, Urry 2000:146).

The knowledge industries have often been seen as an opportunity to reduce pollution and environmentally harmful consumption of natural resources (Høyer & Næss 2001:1). It have neither thick smokestacks nor serious emissions of chemicals to water and soil, and computers and photocopiers account for a relatively modest (although increasing) proportion of the national electricity consumption. The increase in the proportion of the total industries and trades accounted for by knowledge industries has also been mentioned as an example of a 'dematerialization' that is assumed to make continual economic growth compatible with reduced material consumption and pollution (ibid.). The dark side of the knowledge industries is however that the employees are often travelling long-distance in relation to work using aeromobility as the main means of transport. This 'way of working' implies from an environmental perspective serious impacts for the modern society because of the CO₂ problem related to aeromobility. The increasing number of professional trips made by employees' in knowledge industries thereby belongs to some of the environmentally worrying changes in the contemporary post-industrial society. Energy use and emissions of the greenhouse gas CO₂ are larger per kilometre and emissions in the higher parts of the atmosphere have more aggressive climatic impact, and because of that their threat to the global climate is more serious (Frändberg 1998, Nøyer & Næss 2001, IPCC 1999, Western Norway Research Centre 1999, Whitelegg 1997). Until now only little research has been made trying to explore the relation between knowledge industries, aeromobility and environment implications.

In this article I will therefore explore the international work-mobility and aeromobility. To do so the article draws on various theoretical approaches and includes an empirically based case study that involves two Danish cases from the 'knowledge enterprises'. The article is organised in three sections. In the first part, *section 1*, I will set up the theoretical theme for the article. With a starting point in the 'mobility of sociology' I will describe the knowledge industry and its mobility practise. In the next part, *section 2*, I will empirically explore how and why international travelling is taking place in two different Danish knowledge industries Aalborg University and Hewlett-Packard Denmark. I will focus on which mechanisms and patterns of meaning that is related to this type of mobility praxis and show how travels in knowledge industries is accompanied with activities that traditionally not have been linked to work. Finally, in *section 3*, I will set up the conclusions and to put into perspective some of the arguments that I have made in the article.

Section 1:

The 'mobility turn'

In this section I will develop a theoretical framework, which can be used to understand the amount and characteristics of long-distance work-related aeromobility. Let me start by emphasising that the article is placed in the field of a current research interest in the sociological meaning of mobility (Beckmann 2001, Jensen 2001, Jensen & Richardson 2004, Kesselring & Vogl 2004, Lassen & Jensen 2004, Sheller 2000, 2003, Urry 2002, 2003b, 2003c). The attempt in this article to contribute to a 'mobility of sociology' must also been seen as a greater effort to clarify, theoretically and conceptually, a sociological understanding of the relation between the social life and its physical-spatial surroundings. Thereby the article hopefully will contribute to 'a new spatially conscious sociology' (Sayer 2000:133) (see also Richardson & Jensen 2003:15).

Mobility is a dominant aspect of contemporary late modern society both in relation to working life and the rest of everyday life. It can be understood as physical mobility of people as well as the mobility of ideas, information, goods and networks and it is complexly integrated in late modern tendencies e.g. risk awareness, individual reflexivity, changes in working life and identity, time pressure etc. (Beck 1992, Giddens 1991, Sennett 1999, Bauman 2000). Mobility is important to social praxis and structures of inequality; it interacts with dimensions of inequality, social exclusions, work, family identity etc. (Fotel 2003:2). Bauman (1998) has proclaimed that mobility climbs to the rank of the uppermost among the coveted values, and the freedom to move perpetually in a scarce and unequally distributed community rapidly becomes the main stratifying factor of our late-modern times. Beck (1992) argued as well that the social mobility, the geographical mobility and the daily mobility is changing the run of life and the conditions of life for human beings. Urry (2000) has taken one more step and put forward:

[...] the material transformations that are remaking the 'social', especially those diverse mobilities that, through multiple senses, imaginative travel, movements of images and information, virtual and physical movement, are materially reconstructing the 'social as society' into the 'social as mobility' (Urry 2000:2).

We therefore, he says, have to develop a new agenda for sociology (one could add transport research), namely 'sociology of mobility'. Hereby Urry transforms the classic object of sociology: 'what makes society possible' into 'what makes mobility possible' or put differently 'why peoples travel takes place'. Urry divides four different kinds of travel: Movement of objects (which are brought to producers); Imaginative travel (to be transported elsewhere through the images of places and people on radio and TV); virtual travel (to travel often in real time on the internet with many others so transcending geographical and social distance) and physical, corporeal travel (of people, as being 'on the move' has become a way of life for many) (Urry 2002:2). A central point in Urrys work is that these types of mobility produce and reproduce social life and culture forms. Such travelling is constitutive of the structures of social life, it is in these mobilities that social life and cultural identity is recursively formed and reformed. We therefore have to examine the intersections between the

different mobilities rather than treating them each as autonomous (Urry 2000:49). So far, there have not been many attempts inside different research fields to understand the social meaning of mobilities. Traditionally, the field of sociology has taken a starting point in settles and thereby overlooked how movements and mobility enter into the social life; focus has especially been to look at the subject inside settings of structure, organisation, family etc. (Olddrup 2003, Urry 2003c). The engineer-oriented transport research and traffic planning has traditionally focused on transport, as a material object moving to and from a certain point in time and space. In relation to automobility (cars) and aeromobility (aeroplanes), focus has been on solving clearly defined societal problems as securing the highest possible mobility and reduction of various risks from transport such as noise, accidents, pollution etc. (e.g. air transport research see Bøgelund 2000, Holvad & Graham 2001, Rallis 1996). Furthermore, mobility has been seen as something granted and as a favourable good. Traditional transport research and traffic planning has regarded travel patterns as necessarily generated by work, household, family and leisure needs, but they have not been much concerned with the social basis of travel itself and of its likely transformations. Beckmann (2001) stress that the social significance of physical mobility has been neglected and calls it a 'blind spot' in transport research. Traditionally he said, researchers who address transportation issues raise questions such as 'how can traffic be organised and planned more efficiently', or: 'How does one reduce spatial barriers as well as internal and external costs of goods and passenger traffic' (Beckmann 2001:9). There has been an environmental critique of physical travel arguing that the current hugely costly system of hypermobility simply cannot continue indefinitely but this literature omits the social basis of corporeal travel and the present and further interactions and trade-offs possible between physical, imaginative and virtual travel (Urry 2002:3). The critique of 'hypermobility' needs to examine just how and why there is an apparent desire to travel physically (Urry 2002:3).

In this article I will therefore theoretically take a starting point within the sociology of mobility. I argue, as Urry, that this kind of sociology must focus upon examining the extent, range and diverse effects of the corporeal, imagined and virtual mobility. In addition, I argue that the sociology of mobility must contain studies of structures and mechanisms behind the diverse forms of mobility. Mobility raises some possibilities, but at the same time it is a decrease of other possibilities, and it sets up some structures that cannot, or only with many renunciations, be deselected (Jensen 2001:20). This means that we also have to understand the structuring element that mobility produces and reproduces constantly. Mobility give possibilities but it also sets structures and limitations and it is important to understand the mechanisms and incentives beyond the mobilities. My understanding of sociology of mobility is therefore taking the following quotation as a point of departure:

The subject area for 'The Sociology of Mobility' is an analysis of the driving forces and mechanisms behind the diverse forms of physical and virtual mobility and also the possibilities and limitations which these different forms of mobility create for social actions and patterns of meaning (Lassen & Jensen 2004).

This definition must be seen as a work in progress because there is a need for developing and revising central theoretical concepts in this new upcoming research field further in the future. In the following, I will follow a '*mobility approach*' and seek to understand the mechanisms and patterns of meaning related to international work-mobility and aeromobility. First, I will point out some theoretical perspectives on the knowledge industry. Secondly, I will specifically examine the meaning of physical mobility, especially aeromobility in the knowledge industries.

Work, Networking and Aeromobility

How can we now understand the social basis for employees in the knowledge industries and their mobility practice? In his work Sennett (1999) focuses on the transformation of the organization of work and particularly on the human consequences of the new work regime. He describes the modern worker as liberated from check-in watches, production lines and monotonous routines (Sennett 1999:chap. 1). The working life in the 'new economy' is characterised by frequent job-rotation, firings, relocations and reorganisation of work at the same time as short time contracts, time frames, and more flat and more flexible organisations play a more and more important part (ibid.). A high-

level of virtual and physical mobility also seems to be an integrated element in the working life (Eriksen 2001, Lassen & Jensen 2004). Employees are living under constant pressure to renew themselves, update themselves and always be ready to change strategy. The described working life is a picture of a world characterised by flexibility and the liquidity of all things (Sennett 1999:29). Likely to this, Bauman describes metaphorically the modern workplace as a camping site that one visits for just a few days, and may leave at any moment if the comforts on offer are not delivered or found unsatisfactory when delivered (Bauman 2000:149).

This illustrates that mobility in many and complex ways is connected with the knowledge industries. Riain (2000) has particularly investigated a part of the knowledge industries from inside in shape of the Irish software industry. He has followed and participated in an Irish software team for twelve weeks. The Irish software industries have been increasingly globalized the last decade and are today an integrated part of the global economy. He describes that employees from the 'global informal workplace' have one foot in local cultures and the other in the global economy and stress that the global workplaces are subject to a process of 'time-space intensifications' (Riain 2000:179). Time becomes, he says, an ever more pressing reality in the deadline-driven workplace. The time-space intensification shapes the structure of both work and careers in the global workplace and in industries such as software, the typical career pattern now involves a number of moves between organisations, and there has been a clear shift from internal labour markets to job-shopping between firms. Careers are built using mobility between firms to bargain for improved wages and access to technical learning, and these mobile careers only increase the importance of close interactions and strong local cooperation while working on any particular project (Ibid.199). A very central point in his study is that the lines between employer, self-employed, and employee begin to blur in such careers. Here mobility is the dominant career strategy within the software industry as a whole and face to face interaction, localized social relations and electronic networks each structure the global workplace. Riain points that ease of communication and mutual accountability at 'work' ensure that spaces defined by *face-to-face interaction* remain a critical component of the global workplace, even as virtual spaces proliferated within the software team (Ibid.187). Transnational 'virtual' relationships are constantly supplemented by travels to meet the team or teams in other countries (Ibid.185). The physical meeting or the need for face to face interaction has not disappeared in the global workplace (see also Urry 2003c). And as Riain stresses, it is certainly not the case that the 'globalization of work' destroys places and locality, creating placeless 'virtual' work, but instead he emphasizes that the organisation of the global economy through particular places and regions and the critical importance of patterns of mobility of people, information, and resources within and between these regions seems to be central (Riain 2000:198).

As Riain shows in the case of the Irish software team, working in the knowledge industries are based on networking; to management of the job, to ensure ones career etc. Wittel (2000) stresses that the working practice becomes an increasingly networking practice in the sector of what he calls the informative society in the new economy. The 'net sector' can best be understood by looking at work relations and the process of networking practice (Wittel 2001:53). He points out that developments of interfaces into connectivity networks is much more than an online phenomenon, it seems to be a more general characteristic of the new economy in general and the net sector specifically. The networks are important because they circulate information and knowledge; secondly, they circulate capital; thirdly, they circulate labour; and, fourthly, they circulate clients and products (Ibid.57).

According to Wittel knowledge workers and people in the cultural industries are 'nomadic' in their personal biography and in their non-linear work biographies (Ibid:65). They often move from one firm to another, from one occupation to another, 'mixing and matching jobs as events organizers, web site designers, ad creatives, marketing advisers, conference runners, magazine publishers, sponsorship co-ordinations, club promoters, market researchers, PR-officers and various kinds of consultancy' (Ibid.) To describe the networking in the knowledge industry Wittel use the term 'network sociality', which must be understood in contrast to 'community' because in a network sociality, social relations are not 'narrational' but informational; they are not based on mutual experience or common history, but primarily on an exchange of data and on 'catching up'. A shift from an experience-based sociality to an informational sociality can be localised as generated by *mobility* and *speed* (Ibid.68). Mobility is important because more and more people are 'on the move'.

In order to re-establish social contacts 'casting up' becomes an indispensable condition of social situations and the acceleration of speed in social encounters is feeding the development towards an informational sociality (Wittel 2001:68). In a network sociality the social bond at work is hereby not bureaucratic but informal; it is created on a project-by-project basis, by the movement of ideas, the establishment of only ever temporary standards and protocols, and the creation and protection of proprietary information. It is not characterized by a separation but a combination of both *work* and *play* and it is constructed on the ground of communications and transport systems (Ibid.1). This network sociality is not something employees carry out in an 'empty virtual space', it is also very much depending on different material systems:

Network sociality is a technological sociality insofar as it is deeply embedded in communication technology, transport technology and technologies to manage relationships. It is a sociality that is based on the use of cars, trains, buses and the underground, of airplanes, taxis and hotels, and it is based on phones, faxes, answering machines, voicemail, videoconferencing, mobiles, email, chat rooms, discussion forums, mailing lists and web sites. Transportation and communication technologies provide the infrastructure for people and societies on the move (Wittel 2001:69-70).

As the examination above shows, networking is a fundamental part of the employees' working life in the knowledge industry as well as different motilities is a very important tool to network. Without these different types of physical or virtual motilities it would not be possible to network! And as Urry has pointed out 'meetings', and thus different forms and modes of travel, are central to much social life, a life involving strange combinations of increasing distance and intermittent co-presence (Urry 2003c:156). This is especially an element in a networked working life.

Such networks structures and reproduces the conditions for mobility practice of the 'knowledge worker' and is founded in a socio-spatial rationality, which focuses on 'global networks and fluids'. The employees in the knowledge industries are primarily placed in the spheres of what Bauman metaphorically has described as tourists (Bauman 1998:93). The group of tourists is cosmopolitan and travels light and includes an extraterritorial world of global businessmen, global culture managers or global academics. Such a lifestyle is highly aeromobilised and for the tourist air travel is the quintessential mode of dwelling within the contemporary globalising world (Castells 1996:417, cited Urry 2000:63). As I have shown (Lassen & Jensen 2004, Lassen & Laugen 2003) it is not the air trip itself that is attractive for the tourist or 'wannabe tourist', maybe because air travelling for the easyJet generation no longer is looked at as something special or infrequent, but it is a tool to practise a 'global or cosmopolitan identity' for the employees. There can here be identified a connection between the forms of mobility the employees practise in their networked everyday life, and the question about social identity, e.g. ways of living in relation to choosing means of transport. Social agents use this among other 'identity accessories' in their work of constructions, not only localities and places, but also the movement between these places and localities. For a hyper-mobile 'way of living' or 'way of working', 'consuming of distance' becomes a fundamental element and there can be located an interesting connection between this type of consumption and particular human lifestyles and identities (Whitelegg 1997:59). One could say that when we are making our narrative of life we are materially telling about our movements in space (Hastrup 1999:291).

In relation to this type of mobility practise and identity in the knowledge industries as described above, the traditional boundary between work and other parts of everyday life become less distinct. As Wittel points out professional ties become increasingly playful in a network sociality (Wittel 2003:68). A playful attitude is frequently encouraged in the design and layout of work spaces, which encourage the inhabitants to introduce the unexpected into their offices, and in the use of cafes and pubs for work meetings, where spontaneity and accidental encounters may speak of new ideas. The assimilation of work and play corresponds with the blurring of boundaries between work and private life, between colleagues and friends and between colleagues and clients (Ibid.69). And as I will show in the next section there is no longer a clear-cut between: work and tourism; pain and pleasure (see also Rojek 1993:5). It is important to notice that work-related travel also includes other activities than traditional work activities. If one takes a look at www.ving.dk, www.businesstravel.about.com or www.btoneline.com one will see that work-related travelling with air plane also can be linked to other

non-work activities. As one website says in the headline: 'Welcome on the job - travel with Ving and hold a conference above, one weekend, five days or a week in the sun'. This example on 'conference tourism' (Høyer & Næss 2001) illustrates that travelling can be related to other activities than work. In relation to this Urry (1990) has localised some elements of 'traditional tourism'. Tourism is a leisure activity he says, the opposite of regular and organised work, it often involves movement of people to a new place or places, and the tourism sites are outside the normal places of residence and work and there is a clear intension to return 'home'. It is different from, separated from, our day to day lives; we tour in order to see and experience something different. The tourist sites are of 'a different scale or involving different sense', and they are separate from everyday experience and 'out of the ordinary'. But the question is if this description also can be used in relation to the working life of the employees in the knowledge industries? In the next section I will empirically explore the international work-related mobility and aeromobility in two Danish knowledge industries.

Section 2:

To travel is to work!

After the theoretical examination of the 'sociology of mobility', the knowledge industry and its mobility practise, I will now empirically explore how and why international work-mobility takes place and both quantitative and qualitative data will be involved. I will communicate some of the present results from my ongoing PhD-thesis about international work-mobility and start briefly by pinning down the main characteristics of the work-related international trips respectively in the two Danish cases at Hewlett-Packard and Aalborg University. The PhD-thesis is design as a case study because the ambition is to understand the meaning and mechanism beyond international work-mobility. I do not want to make a large-scale survey of population or a representative statistics sample. I want instead to understand why this type of travelling has increased markedly in our modern society especially in the knowledge industries, and what this type of mobility means to the employee's social life, environmental problems etc. To produce this kind of knowledge, the case study fits very well, because it focuses at context-dependent knowledge, which is fundamental in social research (Flyvbjerg 2001:71). Hopefully, this will contribute to give the data material depth and thereby give better possibilities to understand the mechanism and patterns of meaning related to this kind of mobility practice. In this section I will firstly present and analyse the results from a web-based questionnaire that has been thoroughly distributed among the 700 employees at Hewlett-Packard and 1200 employees at Aalborg University. Afterwards, I will go through the qualitative results from 11 interviews carried out in the two cases.

All the employees have received a web-based questionnaire by e-mail, where they were asked to type in information about their international travelling activities within the last year. Furthermore they are asked a number of questions about their attitude to international work-mobility and how the travelling has been carried out.

Case 1: Hewlett-Packard

Hewlett-Packard has two Danish departments in Copenhagen and Aarhus. The company was started in California and today it is a global provider of products, technologies, solutions and services to consumers and businesses. The core areas are IT infrastructure, personal computing and access devices, global services, and imaging and printing. 193 out of 600 employees have responded on the web-based questionnaire, which gives a response rate of 32 %. The answers show that 75 % of the 193 employees at Hewlett-Packard have made a trip abroad within the last year. The employee who has travelled most has been on 43 international trips while 49 employees have not made any international work-related trips. The average employees of Hewlett-Packard Denmark have gone on an international trip 3,8 times and this travelling praxis is highly aeromobilized as 85% of all trips in the organisation was carried out by aeroplanes. It is remarkable that the employees have a significantly higher mobility level, compared with an average Danish citizen's annual use of transport (Danmarks Statistik 2000:173).

The analysis of work-related trips at Hewlett-Packard Denmark shows how the company is organised and how the employees are travelling on an international scale. If we take a look at where the employees have travelled, 26 % of the total trips have been to Scandinavian countries and

67 % have been to other European countries while 7 % of all trips have gone to a country outside of Europe. Figure 1 shows the different purposes for work-related trips. Trips to foreign departments of the company are the purpose of 21 % of all trips within the last year. Sale, purchase and negotiation are the second-most frequent purpose including 19 % of all trips. It is interesting to notice that almost one out of five trips have an internal purpose.

The figures above reflect that the company internationally is organised around different pillars each with their own function, for example management, sale, consultancy etc. Furthermore, the company is internationally split up in regions on different levels, which mean that most travelling primarily takes place in Scandinavia and Europe. Trips outside Europe are for the same reason less common. Some employees have responsibility to specific fields of activity inside a region and therefore they work across national borders. Likewise, the company functions on autonomy, networking and net-relation between the employees. It is up to the individual employee to find projects and tasks to participate in inside the organisation. To do so, Hewlett-Packard has an internal job-market where it is possible to find relevant projects to enter. The employees are every year committed by a goal for their earning capacity and therefore they are 'forced' to go where the job is, nationally as well as internationally. This means that there are institutional 'pressures' to be mobile and to establish personal networks and relations to ensure future tasks that are necessary to survive in the job.

Specific purpose for work-related travelling

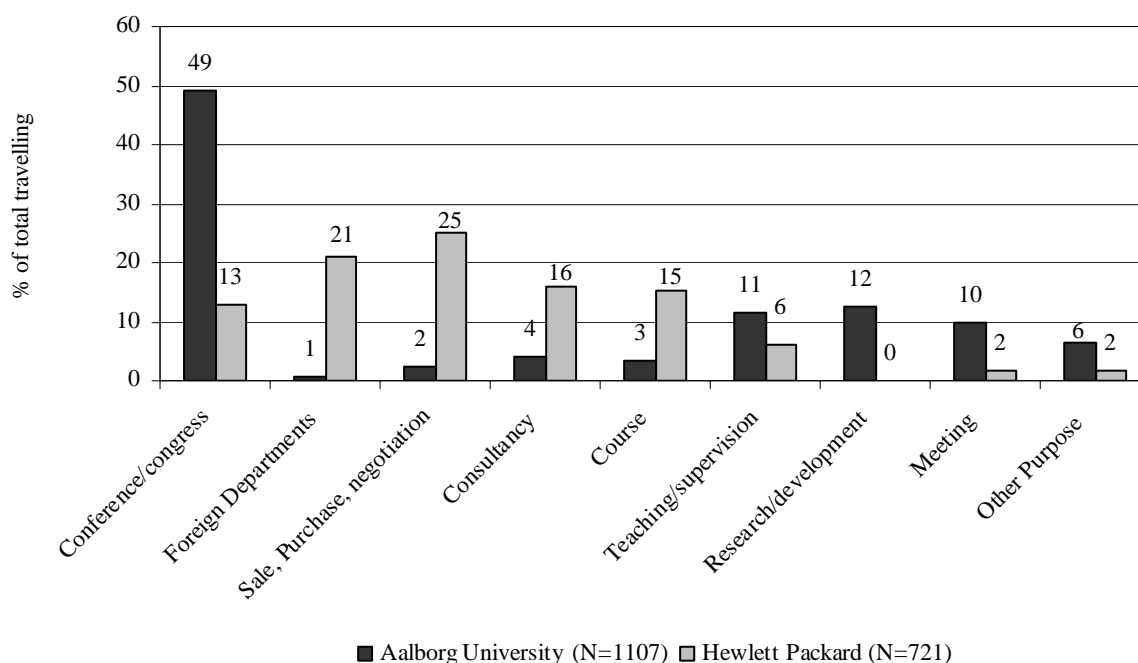


Figure 1 Purposes for travelling among the respondents at Hewlett Packard and Aalborg University. N is the total amount of trips among the respondents at Hewlett Packard and Aalborg University.

Case 2: Aalborg University

Aalborg University is a Danish institution whose primary activities are research, teaching and administration. The university was started in the early 1970s and is placed in the County of Northern Jutland. The total response rate at Aalborg University was 46 %. 547 out of 1200 employees have responded on the web-based questionnaire and 69 % of the employees who have participated in the analysis have carried out work-related trips within the last year. Aalborg University consists of independent departments without a total travel budget, which means that it is very difficult to decide how many of the travelling employees the analysis captures. On average, employees from Aalborg University have 2,0 times gone on an international trip and aeroplanes have in 94% of the total trips been the overriding means of transport. The employees who have travelled most internationally have carried out 22 trips within the latest year and 168 respondents have not travelled at all. This is fewer

trips per employee compared to Hewlett-Packard but it is still considerably above the average Danish person's annual use of transport.

Organisationally, Aalborg University is divided in three different faculties: The Faculty of Humanities, The Faculty of Social Sciences and The Faculty of Engineering and Science. These faculties consist of a number of departments, which function very autonomously. Of course, there are number of requirements to the specific job description (for example Professor, Associate Professor, Ph.D. student etc.). For example, an Associate Professor has to carry out research, publish the work internationally and create international relations. But it is up to the employees themselves how they perform. This mean that international work-related trips are much more individualised compared to Hewlett-Packard. If we look at the international work-related trips, 22 % of the trips were to Scandinavian countries and 56% were to other European countries while 22 % were to a country outside of Europe. Compared to Hewlett-Packard the international trips at Aalborg University have not the same regional patterns because the trips more often go to a country outside of Europe.

As we can see in figure 1, conference and congress participation is the most common purpose for the employees at Aalborg University. 49 % of all trips were carried out to a conference or congress, as shown in Figure 1. Research and Development (12 %), Teaching and Supervision (11 %) as well as Meetings (10 %) are also an important purpose for the travelling activity at the university. This means that conference and congress participation is an important activity for the employees and they are travelling globally on very long distances to do so.

Freedom to choose aeromobility?

An important question is to what extent the employees in the two cases have self-determination in relation to their work-related trips? Is it a question of 'individual choice' or 'structural force' how often an employee goes on a work-related trip? In the questionnaire the employees is asked on a 5 point Likert-scale 'to what extent do you decide the frequency of your work-related trips' going from 'total self-decision' to 'no influence at all'.

The results of this question at Hewlett-Packard were that 32% of the employees said that it is 'predominantly a self-decision' while 41% said that it is 'partly a self-decision' how often they go on a work-related trip. Finally, 22% said that they 'only have a little influence' on when they travel in relation to their job. The tendency in the answers is that the main workers have an influential influence on when they are going on a work-related trip but it is remarkable that only few in Hewlett-Packard can choose freely. We are here dealing with a very complex connection between the individual behaviour and the institutional expectations and demand from company, collaborator, labour market etc. A specific travelling behaviour is both related to structural forces and the employees' individual choice.

Compared with Hewlett-Packard the employees at Aalborg University have a higher degree of self-decision in relation to work-related trips. 73 % said that it is a 'total self-decision' or 'predominantly a self-decision' how often they go on a work-related trip. Furthermore, 22 % said that it is 'partly a self-decision' and 6 % said that they 'only have a little influence'. This means that the employees have a high individual influence on how often they go on a work-related trip. Of course, there are also some structural forces that affect the employee in this case, for example to create an image for oneself internationally, but still it is important to notice a higher degree of self-decisions compared to Hewlett-Packard. The research worker at Aalborg University has a high influence on whether to go on an international conference or not - to travel, or to stay.

Tourist or worker?

To link activities that traditionally have been related to holiday or spare time to a work trip seems not unfamiliar for the employees in the two cases. It is however more normally among the employees at the university compared with the employees at Hewlett Packard. As figure 2 shows, 37% of the employees at Aalborg University and 21% at Hewlett Packard say that they have had one holiday (or more) in relation to one international work-related trip (or more) within the last year. On an average the employees at Aalborg University, who have linked holiday with a work-trip, have held 7 days while the employees at Hewlett Packard on an average have held 3 days. If we look specifically at the number of trips linked to holiday activities, 18% at Aalborg University and 5% at Hewlett Packard of

the total trips have been linked to holidays. This suggests that work-travel not only is related to traditional work activities, which I will return to in the following analysis of the qualitative interviews. I will briefly mention another example from the web-survey, which illustrates that the boundary between work and tourism is not distinct on international trips. Out of 55% of the trips carried out to a conference at Aalborg University, 38% was to a country in Europe outside Scandinavia and 30% of these trips were carried out to a location situated directly on the coast of the Mediterranean. Not only to big cities but also indeed to small tourist places.

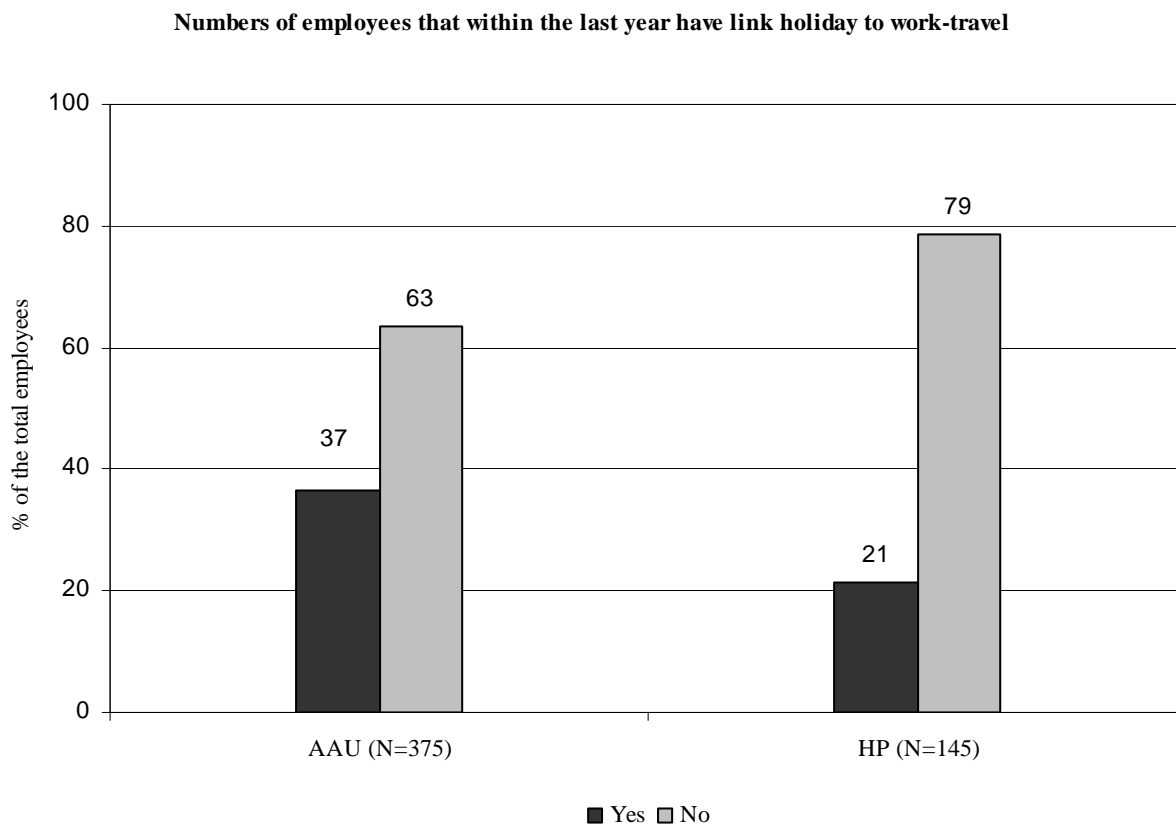


Figure 2 Shows the number of employees who within the last year have linked holiday with a work-trip. N is the total number of employees who has filled out the websurvey.

Often the employees in the two cases carry out international work-related trips in company with other people. At Aalborg University, 70% of the employees say that they within the last year have carried out one or more trips in company with others, e.g. colleagues, family, friends, business connections etc. 52% of the total international work-related trips carried out by the employees at Aalborg University were in company with others. At Hewlett Packard 55% of the employees say that they have carried out one or more trips within the last year in company with others and 55% of the total trips at Hewlett Packard were in company with others. The most common travelling partner at both Aalborg University and Hewlett Packard was not surprisingly colleagues in 73% of the total number of trips with company. But there is a big difference between the second most frequent travelling partner. At Aalborg University family comes second (19%) while business connections are second at Hewlett Packard (20%). It is notable that when the employees at Aalborg University choose to travel with others, one out of five chooses to bring the family on the trip.

I want to end this brief presentation of the results from the web-survey by mentioning that when I carried out the survey I realized that it is very difficult to get an honest answer from the employees in the knowledge industries when it comes to what non-work activities they are carrying out in relation to international workmobility. This question seems sensitive among the employees. To illustrate this I will quote a piece from an email that a leading professor from Aalborg University sent me as a reply to the web-survey: 'I think it's tendentious. There's a number of questions where one can easily see what opinions the questioner have, and one can easily see what provoking articles can

be a result of this. Furthermore, there are questions where one feels like pulling out because the answer might be used against you on a later occasion if the employer wishes to gain insight into the work of the research group. I, and everybody else with me, must therefore insist on discretion'. This indicates that the employees are not very open about what they are doing in relation to work-travelling and it is only one example out of several of the responds. It seems therefore reasonable to assume that the result from the web-survey not shows the total picture of the travels in the two cases.

To travel is to live!

I will now turn to some of the results from the qualitative interviews and localise more in-depth why and how travelling takes place in the two Danish knowledge industries. An important question is why the employees are travelling in relation to their job? Which rationalities, and patterns of meaning lie at the root of the individual employees' travelling behaviour? The employees give different answers. Some of the employees express that they are carrying out work-related travelling because it is necessary to manage their job satisfactorily. For example, some of the employees' have been commissioned to watch over different projects abroad, or to participate in a project group. Others give more individual reasons for going on international work-related trips. One argument at both Hewlett-Packard and Aalborg University is the international aspect. Several of the employees express that the meaning of the international aspect is an important part of their working life:

[...] it is enormously important, it depends on how one means the international. I am not thinking much in national terms and when I open the newspaper I am not reading much about the hospital sector or what it might be, I go straight to the international news; I am focused on the international. I don't consider myself Danish through and through either, if one can put it that way, even though I am so by birth, but I think that I have more of an international self-conception than a national self-conception.

In this context international work-related mobility is an important tool to praxis such international self-conception. Others employees said that work-related trips give a break from everyday life and in that way seem tempting. This means that international work-mobility for some of the employees bring excitement and variety in their normal working life.

Another conspicuous argument in both cases is the need for proximity. The employees describe the physical meeting as important in relation to being a part of a network. A physical meeting with a customer to end a deal or a conference dinner can be important to manage the job. Maybe it is the conference dinner that gives you contacts to new project partners or new collaborators. The physical meeting offers, due to the employees, something that virtual communication does not contribute, for example eye contact, body language, small talk, socialising etc. A male employee from Hewlett-Packard elaborates on the issues of face-to-face meeting and says that face to face meetings guarantee that some things are carried through and that you have a possibility of following things through afterwards. This illustrates that proximity is important when one is trying to understand why international work-related travelling takes place. A face-to-face meeting is an important element when two people want to be confident with each other and to build trust. Urry has pointed out that co-presence especially offers eye contact with the other, which can establish intimacy and trust (Urry 2002). In face-to-face conversations topics can come and go, he said, misunderstandings can be corrected and commitment and sincerity can be directly assessed. The interviews with the employees in the two cases shows that going to a meeting, course, conference etc. is much more than the act itself. There is a formal and informal agenda. Networking and relations building is a very important element in such activities. When one goes to a meeting, networking in the corridor or an informal 'meeting' at the coffee-machine is a very important activity. A female worker from Hewlett-Packard said that the real meeting is starting when the official meeting is over or during the break. It is here the real deals and agreements are made. In the same way an employee at Aalborg University stresses that conference or congress participation is more than a matter of exchanging scientific results. It is also a question of networking and to create new relations, which can be difficult to do through video-meetings, e-mail, voicemails, telephone and other virtual communication systems. It is difficult to have eye contact, socialise and to build trustful relations on the screen. If for example an employee

participating in a project above he is communicating current with the other participants and in the process a need for proximity can rise in the light of the rationalities described above.

A life in corridors'ⁱⁱⁱ

A general outline related to the 'narratives' is that the employees describe their trips as a praxis that takes place in different corridors. This is conspicuous especially at Hewlett-Packard. Here the international work-mobility takes place through corridors, for example: in airports, in aeroplanes, on motorways, on hotels, on offices etc. etc. The above-mentioned employees from Hewlett-Packard describe it as follows:

Brussels on Monday evening directly to the hotel, a meeting with the European executive, dinner with them, a beer in the bar, and then to bed. The next day in Belgium at a strategical meeting that last all day till 5 o'clock; then we drove in car to Amsterdam, because it suited us best by car, spent the night in a hotel and had dinner there at night, a beer in the bar and then to bed. The next in for a strategical meeting in Holland. This lasted till five o'clock where after one goes to the airport in Amsterdam and by plane to London, then to a hotel, a meeting with a German colleague at a hotel, dinner with this colleague, you know, a beer in the bar and up to the hotel. The next day a meeting with an American person and the German person and my European executive/boss, who in the meantime had been to Germany, and then in the evening back home.

The work-trip takes places in high-speed spaces where the employees are moving on the way to the next meeting, next hotel, next bar and next country. Even though not all of the employees are travelling on the same level as described above, it covers in many ways the narratives from the employees' experience of the work trip. In general they experience the international work-trip to be related to movement between points consisting of airports, office buildings and hotels through a space stretched out by different kind of infrastructures. This gives the trips a character of monotony and there is often not much time to experience the locality that one is visiting. An employee who is often travelling long-distance to different countries expresses that it often is difficult to decide where he is, because the office in the company look the same all over the world. This is exactly moving through identical airports, office buildings and hotels or what Augé name as 'Non-places' (Augé 1995). Localities that not vary much, which mean that work-mobility is experienced as monotonous and dull. The reason that work-related trips also seems attractive for the employees is when they for example in weekends get the chance to experience the local characteristic and culture outside the corridors' narrow monotonous spaces. The experiences of the work trip as monotonous can also be located among the employees at Aalborg University, but not on the same level. This is probably caused by the lover travelling frequency at the university as I mentioned above. In both cases long-distance work-related mobility is fully integrated in working life but there is a difference how. At Aalborg University the work-mobility is characterised by that the employees has a permanent office where they are travelling from and coming home to (there is a clear line between home and abroad). Oppositely, the employees at Hewlett-Packard are carrying their office in a brief case with a mobile phone and portable computer (the line between home and abroad is less distinct). Another perspective that separates the two cases from each other is that the employees at Aalborg University have more influence on their work-related trips. This mean that they have a better possibility to carry out activities in relation to the trip that often has been related with leisure, as for example adventure trips, shopping trips, visiting friends and family, extend the trips in relation to holiday etc.

The aeroplane as the global bus

The trip is described as boring and as a necessary evil to get to the requested place both at Hewlett-Packard and Aalborg University. One employee at Hewlett-Packard described the aeroplane as a bus he takes to get to the requested locality. A male employee also at Hewlett-Packard, who is travelling a lot in relation to the job, tells how his relation to trips has changed since he first time stepped into an aeroplane. The first time he had butterflies in his stomach but today the aeroplane can bounce up and

down, he will not notice, and travels around the world is a natural and routinely praxis. Similar descriptions can be found in the interviews at the university. The trip is no longer associated with excitements and expectations that traditionally have been a characteristic for journeys abroad. The employees make a trip abroad in the same way as they would take the bus in their local area. These cause that the trip for the employees have the character of a product. A female salesman at Hewlett-Packard compares her relationship to work trips with a restaurant visit:

It becomes a problem, it's a little like going to a restaurant, because you're out so often and you gradually set your demands a little higher. My demand for a good dinner is perhaps a little different than with other people; because it must always be measured up to the one I had the last time and so on. Is this as good? And I wouldn't be surprised if 80 % of those who had that dinner I just had and didn't think was very good, would think it was really good. Because their expectations to it were different. So I think you set your expectations a little higher in comparison to the last time.

This experience as the female employee express is fundamentally different from the attraction and mystery travelling abroad historically has had, for example when a explorer go out in the world and come home with marvellous travelogues about the mythically foreign countries he has visited. A fairytale that, in Bauman's words, loses its meaning when the whole life becomes a number of fairytales, and the trips in the same way lose their attraction when they become everyday life (Bauman 1998:96). As a parallel to Bauman's tourist the employees at Hewlett-Packard complains about difficulties related with the journey, for example bad aeroplanes, long waiting times in the airports and monotonous and tiresome trips. But as mentioned above nobody, asked directly, wants to do without, because it has different meanings in relation to the working life. For example, to get a break from everyday life or bring the working life an international dimension.

'Escaping' the corridors

As described the employers are moving through corridors linked together by nodes of hotels, airports, companies etc. But as I showed above the employees are not only working when they are abroad, they are also carrying out activities normally related to the leisure or tourist sphere. Sometimes they leave the corridors and visit tourist places, go sightseeing or experience 'local places' alone or in company with colleagues, friends, family etc. Or maybe they are visiting friends or family abroad. These type of activities bring excitement and distraction into the monotonous work-related aeromobility; it is a kind of escape from the life in the corridors (see also Rojek 1993). This 'escape' from the corridors seems to bring curiosity into the work trip when they leave the corridors behind them and enter a more colourful and intoxicating world. It is one of the elements that on a personal level ensure that it is worth travelling in relation to the job. And maybe it gives a feeling of being an 'international person'. Leisure and tourist activities are related to and combined with international work-travelling and aeromobility in a very complex way; I will in the following explore and localise some of these connections.

First I will go through what I call 'the employee as tripper'. In both of the two cases the employees describe how they are carrying out tripper activities when they are on an international work-related trip. One employee from Hewlett-Packard describes how she often travels to places she never would have come to as a 'private' person. She therefore goes on short trips in the area that she is visiting in relation to a work travel. It gives her the chance to explore the place and brings excitement into the journey. Some times she is going alone and sometimes with colleagues. A female associated professor from the university describes also such kind of tripper activities:

It depends on whether you meet somebody whom you go out with or if you stroll around by yourself, it might not be the most exciting thing, then you might visit some shops and get to buy a little to bring home. In the USA for example, the aim was to buy a lot of things to bring home for cheap dollars, whereas in Moscow it was all about experiencing a lot of things, get to see the sights, go to the ballet and really see things, when you happened to be in a place which you perhaps would not have seen otherwise.

This description is an example of how the employees in the two cases also carry out activities normally related to the tripper's sphere. One place the employees are going shopping, in another place they are going sightseeing and visiting the local attractions. A female employee from HP tells that she is often organising different events in relation to meetings. If the meeting for instance is taking place in Lyon they organize wine tasting and if it is in Amsterdam they might go for a boat trip on the canals. Another perspective related to the international work-related trip is what I name 'the employee as tourist'. Some of the employees in the two cases tell that they sometimes use the opportunity to extend the normal work-trip for a few days or maybe use it as a take off for a longer holiday. They extend a trip with extra days or start their holiday in the end of an international work-trip. This can be caused by the fact that the employee travels to an interesting place and wants to explore it more than the normal work-related travel gives opportunity to.

Another element that is not normally related to the working sphere is 'bringing family or friends' with you on a travel or 'visiting friends and family when you are abroad'. As I have shown above, it happens that the employees, especially at the university, bring their wives, children or friends with them. A male professor at the university who is doing research in international relations tells that travelling has been a normal element in his and his wife's life. His wife is often travelling along with him on international work-trips. Often the wife comes abroad in the end of the trip and together they hold a holiday. Others bring the family on the whole international trip. Another variant is that you visit friends and family abroad. Employees in the two cases tell that they sometimes use the work travel as an opportunity to visit friends and family in other countries. One employee tells that she often participates in a conference in England just before Christmas. She has previously been a student in England and the trip gives her an opportunity to see old colleagues and friends and to buy Christmas presents in England. Another female research fellow from the university tells:

I've many acquaintances, I've been travelling a lot, so I know people in all sorts of strange places, so I've often visited people whom I know. Of course, it's not like I've gone to the place where I know somebody, I have been more lucky, but I think it's been pleasant.

The woman has previously been a 'backpacker' and therefore she has friends in many of the countries that she visits in relation to a work trip. She has no family obligations and therefore she is free to use long time away from home. She tells that she is often travelling to USA in relation to her job and that she has a lot of friends there, and she therefore uses the weekends to travel inside USA to visit them or she extends the trip before or after the work activity. A female developer from HP describes that she has often used the opportunity to visit her family in England:

No, but now I have family in England, so I've often before, when I went to England a lot, prolonged the trip over the weekend, which is also in the interest of Hewlett-Packard, because it then gets cheaper for them concerning the plane tickets. So I've done that and brought my family, there's been some good opportunities for that. At the moment, I do not do it as much because my daughter has started school, so it's a little more difficult, but previously I've seen the most incredible places, exactly because I've prolonged the trip with a weekend stay.

This illustrates how the employees in the two Danish knowledge industries mix their work-travels with others activities not normally related to work. If we go back to Urry's description of the traditional tourism there is a gap between these definitions and what I have described in this article about travel and work. Of course, travelling on the modern labour market involves movement of people to a new place or places. But tourism activities is not something completely opposite to regular and organised work because tripper and tourist activities and 'play' is carried out in relation to international work-related travels. It is very integrated in the working life and not something completely different; it is a part of 'having a job on the modern labour market in the network society'. For the employees the tourism sites are outside the corridors ('one can say it is an 'escape' from the monotonous and tedious corridors') but the separation between being a tourist or worker is not clear or distinct. The employees

can shift from work to pleasure and from work to tourism many times during the week, the day or even the hour. The employees have different experiences in and out of the corridors but travelling, tourism and tripper activities are not something very separated from everyday experience - the shift out of the corridors to carry out tripper or tourist activities is 'out of the ordinary' but it is something that happens frequently compared with the traditional tourist (not only one or two times a year). Of course, the employees think it is attractive to experience new places, cities, countries or new 'tourist gazes' (Urry 1990) but compared with the traditional understanding of the tourist it seems more related to an everyday experience and integrated into this.

To bring family or friends on a work-trip or visiting family or friends abroad in relation to a trip is another example of the fact that the distinction between family and work in the same way as tourism and work is less clear. Furthermore, tourism and tripper activities are also combined with bringing family/friends or to visiting family/friends abroad. This illustrates that there is a very complex connection between work and tourism and when we ask the question why employees in the 'knowledge industries' are travelling we must of course understand it in terms of work, networking, the new economy, the new labour market etc., but we must also understand it in terms of tourism, family and play. This has implications when we want to understand the kind of 'hypermobility' that the employees in the knowledge industries represent.

Section 3:

Conclusion: Tourist and Worker

In the conclusion I consider some political implications of my analysis. I have explored why international work-related travelling in the knowledge industries is taking place. In the article I argue that if we want to answer this question we must seek to understand the social basis for this type of mobility practice. The knowledge industries can be seen as representative for the new economy and the new labour market. It is a highly flexible, networked and mobilised sector. A high use of different forms of physical and virtual motilities seems to be a fundamental element in the working life. As I have shown, the working life is also very aeromobilised and the employees carry out travels inside 'corridors' which can be described as 'a non place space' linked together of airports, office buildings and hotels etc. In a lot of the travelling carried out in the two cases the need for physical co-presence and corporeal 'face to face' meetings seem important in a 'network sociality'. I have argued and documented that if we want to understand why long-distance aeromobilised travelling in the knowledge industries takes place we must understand it not only in terms of work, networking, the new economy and the new labour market but we must also understand it in terms of tourism, family and play. There is a very complex connection between all these elements and air-travels 'on the new labour market'. There can be localised an assimilation between work and play, work and private life, colleagues and friends and as I have shown between tourism and work which makes travelling in the knowledge industries a very complex social practice to understand and describe. All this has implications for how we shall understand the travelling practice. We have to understand that the employees in the knowledge industries are both workers and tourists and mix pain and pleasure in a very complex way. The face of the 'knowledge worker' is ambiguous - you cannot tell if you are facing a worker or a tourist.

In this article I have not focused much on the environmental perspective of travels in the knowledge sector, but as I mentioned in the beginning of the article it is an underlined premise and driving force in the first place to ask the question: 'why travelling in the knowledge industries takes place'. Travelling in the knowledge sector is related to very serious environmental problems and complications and therefore if the society wants to aim more 'sustainable mobility' or a 'sustainable transport system' it is necessary to consider some of the points in this article. If travelling in the knowledge industries not only is about 'doing the job' in a traditional way but also in a complex way related to other activities out of the traditional work sphere it seems in the light of my conclusions in this article very difficult to encourage less travelling activities only by the improvement of technologies e.g. videoconference, net-meetings etc. If it stands alone it will even maybe generate more travelling (see Urry 2003c). This is caused by the very complex social and physical mechanisms and patterns of meaning that I have described in this article. Therefore it is important to emphasize that it can not be done without politics, political solutions and political tools (as for example planning).

Technologies itself will not solve the problem so at the end of the day it is a political decision if the travelling in the knowledge industries will be reduced. As a last comment it is important for me to stress that this article is a 'work in progress' and therefore there is still in the future a lot of work to do in developing a theoretical and empirical understanding for this very interesting and complex field.

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Notes

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ⁱⁱ The paper is a revise version of the paper: “Rethinking central concepts of work and travel in the ‘age of aeromobility’”, present at the Alternative Mobilities Futures conference, Lancaster University, UK, 9-11 January.

ⁱⁱⁱ The metaphor is borrowed from Karl G. Høyer, Western Norway Research Institute. He introduced this metaphor at a working seminar held at Aalborg University 2001.