

Project P903

**ICT and everyday life**

Deliverable 1

**Report of Task 3, The qualitative analysis ICTs and mobility, time stress  
and social networking**

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**Abbreviations**

ICT Information and Communication Technology

**Country references:**

Cz Czechia

Dk Denmark

Es Spain

Fr France

It Italy

Nl the Netherlands

**Focus group references**

N Neither mobile phone or Internet

oM Only mobile phone

oI Only the Internet

B Both the mobile phone and the Internet

## Introduction

This report is part of the EURESCOM P903 project ICT use and everyday life. The empirical portion of the study has two different, but interrelated portions. The first of these, which is reported here, is the qualitative part of the study. A related and complementary quantitative analysis integrates certain portions of the qualitative analysis.

## Background to the Research

Recent years have seen an enormous development in the use of Information and Communication Technologies (ICTs) throughout Europe encouraged by the various research efforts within the European Union. Many of the companies involved in delivering these new ICTs and related services are to varying degrees realising the merits of understanding better the needs and desires of potential users. This is reflected in the tools of concept testing, usability tests and the trailing of new products (Van Dusseldorf et al, 1999). While these approaches are useful for understanding more fully the role, or potential role, of a range of ICTs in everyday life, it is also important to appreciate the part played by underlying social factors structuring the life situations of different sectors of the European population

As the title of the project suggests, this work is an attempt to understand the consumption and use of ICTs in the context of people's everyday lives. On the one hand, contemporary society is characterised, for many, by being fast paced, mobile with demands being made by friends and family. Time use, mobility and the integration in a social network are key aspects of contemporary life. Against this background there is the increasing availability of various ICTs, including the mobile phone and the Internet. The juxtaposition of everyday life – as seen in perceptions of time use, mobility and integration in a social network – and the adoption of the Internet and the mobile phone is the focus of this work.

Recent thought with regards to the adoption of ICTs points to the idea that users' perceptions of the technologies undergo transitions as the adoption process proceeds. Silverstone describes five points in the consumption process (1994, 122-131). These are imagination, appropriation, objectification, incorporation and conversion. *Imagination* is the way in which a commodity, such as a mobile telephone or the Internet, enters our consciousness, with perhaps the help of advertising or the example of our friends as the mid-wife. *Consumption* is that point at which the commodity crosses from the general society into the life of the individual be it through purchase, or through being provided by one's job or via other members of the household. *Objectification*, a slightly broader concept, describes one's placement of the commodity into one's own context. It describes one's sense of self, one's identity and the role of the object in that understanding. Thus, objectification is more of a bridge involved in the legitimisation of consumption and the integration of the consumed artefacts into one's life.

The next point of the process is *incorporation*, involving the specific use of the artefact in the daily routines of the individual or family. Finally, Silverstone

discusses the *conversion* of the object or service into the socially understood gloss of the individual. *Conversion* is that stage wherein the social constructed meanings are known and judged by others.

These last two concepts are of particular interest in the analysis that follows. The design of the study provides us with the perspective of both experienced and non-users of mobile telephones and the Internet. Thus, in the case of the non-users this work provides us with insight into the “unschooled” notions of what the technologies can provide. This is contrasted with the actual uses of more experienced users.

This entire process is a type of domestication of the technology. That is, one’s understanding and use of the technology undergoes a transition as one gains understanding and insight into the possibilities and potentials of the technology.

### **Time and ICTs**

There are a number of ways in which time considerations are pertinent for ICTs. Firstly, the organisation of time has a bearing on when people are ‘free’ to use ICTs. Understanding the temporal circumstances of individuals and households can help us appreciate why they use ICTs at certain times (e.g. as regards use of the Internet, Haddon, 1999) and for how long. It can also help us to appreciate how much time they have available to actually go through the process of acquiring ICTs in the first place and then to invest in learning how to use the technologies - i.e. the time required for their apprenticeship. But equally those time constraints and priorities can influence their perception of ICTs (e.g. making them appear to be ‘time-wasting’).

Secondly, ICTs can be used as part of individual and household time management strategies. For example, various telecommunications ICTs can be used to co-ordinate more efficiently; personal organisers and computer software can be used to plan timetables; and media broadcasting schedules can be used to mark the passage of time and give some structure to the day.

Thirdly, the use of ICTs may in turn have an effect on people’s very experience of time. For example, if the availability of the mobile phone and e-mail means that people can communicate more, (a) they may then feel under pressure precisely because they can then fit even more activities into their lives or (b) because they communicate more, they may also receive more communications and be expected to reply to more messages - i.e. they may have to manage more communications traffic.

### **Mobility and ICTs**

Modern society, in particular urban society, is characterised by geographically dispersed activities and the need to co-ordinate these. The traditional telephone has been used in this connection, but the fact that it is fixed to a place means that it provides co-ordination only when one is at certain locations. The ability to communicate while in transit has only become possible for average people in the last decade.

Another type of mobility is residential mobility, that is, the periodic movement from one place of residence to another. For some groups this is a rare

experience but for others, such as students, it happens more regularly. The ability of communications infrastructure to maintain pace with persons in this latter category has changed dramatically with the introduction of new ICTs. A third type of mobility is free-time mobility, specifically the ability to take vacations in relatively distant or remote locations. ICTs, and in particular the Internet have facilitated this in several ways. First, the Internet provides information regarding the potential travel locations. Second, the development of e-commerce is facilitating the ability to make reservations for various travel related goods and services, and finally, the Internet seems to provide individuals direct person to person contact with a remote, loosely knit group of friends and relatives and thus it encourages contact and further mobility.

### **Social networks and ICTs**

The use of ICTs, particularly in their communications mode, implies that one is part of a social network. These social networks have various characteristics and they cover various clusters of individuals. The reasons for adoption of ICTs, the eventual functions that arise and the ways in which these are made manifest will be reflected in the construction of the social network.

It is worth noting that the networks can have different levels of interconnection both in terms of the number of individuals involved and frequency with which they communicate. Another aspect used to describe networks is their geographical range. This can vary from the local to the international. In all groups there is also the issue of determining the boundary of the group and which types of interaction are appropriate for each of the various networks in which one participates. Given these elements, the forms of interaction among family, friends, colleagues, neighbours and other, more loosely knit, networks will present different demands.

Within each of the types of networks described here, various ICTs may be considered more or less appropriate to the needs of the group, depending on such considerations as the synchronicity of the medium, text vs. speech vs. visual interaction, and spontaneous vs. pre-planned interaction

### **The choice of ICTs**

At its most general level, the research here examines the adoption of technologies for everyday use. That is, we are interested in explicating the social dynamics surrounding the general adoption of new ICTs. This means that, when focusing the project there was the need to take two issues into consideration. On the one hand we needed to consider technologies that were well enough established in the population so that most, if not all, persons would be aware of their existence, and perhaps even observe their use on a regular basis. Given this consideration we could not include extremely new, cutting edge technologies such as WAP or UMTS as these are only well known among a small number of groups. In a similar way, the examination of fully established technologies such as the traditional fixed telephone, the TV or even the fax would not provide the type of insight in which we were interested. At the time of the research the mobile phone and the Internet were considered to be two of the newest ICTs available which were sufficiently established that

they would not be totally beyond most people's horizons - they would be at least known to all participants, even non-users. But these ICTs were nevertheless not so fully integrated into everyday life (like fixed line voice telephony) that they were taken-for-granted technologies. By virtue of the fact that they had only been adopted relatively recently, or were on the process of being adopted, or they were being considered (or rejected), it was felt that focus group participants would have reflected or could reflect on their actual or potential roles in everyday life and the issues relating to these.

### **Key questions**

The following are some of the key questions that the report hopes to address:

- How do people experience and manage their time circumstances, mobility and social networks, how do they perceive this to be changing over time and what implications has this for ICTs in general, but for mobile phones and for the Internet in particular.
- We noted the process by which products become domesticated within people's everyday lives. So another aim of the report is to understand the 'careers' of the mobile phone and the Internet in the sense that the role, meaning and use of such ICTs can evolve over time. This occurs as users gain more experience of the technologies and discover new circumstances and ways in which they can be used and be useful - but equally where they can be problematic. We can appreciate too that the usage of these ICTs and their place in everyday life can develop in unanticipated directions, certainly ones unanticipated by the original developers, as users enter into what might be considered to be a form of dialogue with the technology.
- What are the barriers to and catalysts for both the adoption of ICTs, especially mobile phones and the Internet, and the expansion of their use and integration into everyday life. This includes asking both about the wider social conditions favouring or mitigating against these technologies and the particular circumstances and lifestyles of social groups including their interests, orientations and concerns.

## **Methodology**

### **Qualitative analysis**

In the wider research programme of project P-903, there are two methodologies being applied to the question of ICT use in everyday life. The qualitative research approach being reported on here is being used in conjunction with a quantitative analysis - it provided the basis for some of the questions asked in the survey and will be used to help interpret the eventual statistical data.

The major difference between these two approaches is that – as the name suggests – within the realm of qualitative analyses there is not the same focus on gathering quantifiable data, i.e. material that lends itself to statistical analysis. Another major difference is that within quantitative analysis there is

usually an emphasis on the generalisability of the results. The major drawback of the quantitative form is that it is rigid. While qualitative analysis allows one the ability to reformulate questions within the context of the interview in order to derive a rounded picture of the issue at point, quantitative analysis is less flexible. In practice it is often difficult, if not impossible, to frame questions and items that are interpreted in the same way by a broad range of individuals. In this respect the qualitative analysis has several characteristics worth noting: The open-ended questions of qualitative analysis and the ability to follow up unexpected but theoretically interesting themes that emerge in interviews and focus group sessions make it particularly useful as an exploratory tool. Qualitative research can show the range of experiences, certain cultural differences (e.g. how people describe their situation or present themselves, such as saying they 'can manage their time in Denmark' vs. saying they are 'busy' in Spain)

As we will demonstrate when considering the implication of the research, qualitative material, through the particular examples given and quotations, can be a useful starting point for generating ideas about and issues concerning future technologies.

Within the P 903 project we attempt to meld the qualitative and the quantitative approaches into a broader, and perhaps more robust examination of the role of ICTs in everyday life. On the one hand, we are looking to the qualitative analysis to provide a fuller overview of how individuals understand ICTs. We are, at the same time, looking to the quantitative analysis of this issue to provide a generalisable picture.

Looking more specifically at the qualitative approach, it has three roles within the project. First, it is a way of better focusing the development of the quantitative instrument. Second, the qualitative analysis will be used in the interpretation of the quantitative material upon the completion of that analysis. Finally, as will be seen here, the qualitative approach can stand on its own feet as a form of analysis.

### **Focus groups**

The focus group method is one of a number of qualitative approaches. Other types of qualitative analysis range all the way from participant observation, to in-depth household interviews to quasi-quantitative analyses.

Of course, individual or household interviews have the advantage of providing much more in-depth information about the context of people's lives and they allow the researcher to explore at more length the perspectives of the particular interviewees. But apart from any time and financial considerations involved in the decision to conduct this form of analysis, focus groups have the advantage of providing a particular dynamic. Through the process of interaction, participants could stimulate each other, reminding one another of related or contrary experiences in their own lives or in what they observed which they might otherwise not have considered. In addition, focus groups can often reveal how people feel about a particular subject or issues through the emotion expressed in the course of discussion. Hence, focus groups were considered to

be a useful vehicle for exploring attitudes and perspectives, illustrated through the mobilisation of anecdote and example.

### **The organisation of the research**

A series of 36 focus groups were held in six different countries. These included 1) two groups in each country that consisted of person without experience from either the Internet or the mobile phone, 2) two groups for experienced users of both technologies, 3) one group of Internet only users and 4) one group in each country of mobile phone only users.

### **General background variables**

An analysis of the background of the individuals shows that there were a total of 326 persons interviewed in the 36 focus groups.

#### **Country**

	Frequency	Percent
Czechia	58	17,8
Denmark	49	15,0
France	52	16,0
Italy	55	16,9
Netherland	57	17,5
Spain	55	16,9
Total	326	100,0

The data show that there was roughly an even distribution of interviewees across all the countries. An analysis of the number of participants in each of the six focus group rounds also shows that all the groups were roughly the same size.

#### **Type of technology used**

	Frequency	Percent
None	108	33,1
mobile phone	56	17,2
Internet	56	17,2
Both	106	32,5
Total	326	100,0

In a similar way there were no real differences between the groups when looking into the type of technology used. About one third of the informants had neither a mobile phone nor a connection to the Internet, another third had both and finally a third had either one or the other.

The group of informants included 162 men and 164 women. Further, the mean age for the individuals was slightly less than 37 years old. The youngest informant was 18 and the oldest was 71. Here there is perhaps an overrepresentation of younger informants. The data show that about one third of the informants were under 30 years of age, another third were between 30 and 39 and finally one third were over 40 years old. If one compares this to, for example, the distribution of age groups in Norway one finds that the general population has a larger number of persons in the over 40 year old category and, in fact, relatively few in the under 30 year old age group. The explanation for this bias in the informants is, of course, that it is easier for

younger persons to give over an evening in order to attend a focus group. The oldest mean age for the informants was found in the Netherlands (43.6 years old). The informants in Spain were the youngest. Their mean age was 32.4 years old.

#### Age

Age group	Frequency	Percent
< 29	105	32,2
30 - 39	101	31,0
40 - 49	70	21,5
50 - 59	36	11,0
> 60	14	4,3
Total	326	100,0

When looking at the marital status of the individuals the data show that more than half (56%) of the informants were either married or cohabiting. There were about 36% who were single and slightly less than 8% who were either divorced or widowed.<sup>1</sup> Again, comparing this to data from Norway, there are some differences that one must note. This national data (that may or may not be representative for other portions of Europe)<sup>2</sup> show that, in rough terms, one third of the individuals are married, slightly less than one third are single and the remainder have been divorced or widowed. Thus, the material from the focus groups has a disproportionately large number of married persons and a low representation of persons who are either divorced or widowed.

Italy and Spain had the highest number of persons reporting that they were single (ca. 46%) while France and the Netherlands were at the bottom of this list (ca. 24%).<sup>3</sup> Czechia, France and Denmark had the highest percent of married/cohabiting persons (ca. 60%) while Italy and Spain had the lowest percent (ca. 51%).

#### Marital status

	Frequency	Percent
Single	106	36,6
Married/cohabiting	163	56,2
Divorced/widowed	21	7,2
Total	326	100,0

The last of the descriptive statistics examined was the number of children that each of the informants had. The material shows that 47% had no children, 13% had one, 22% had two and 6% had three or more. The data show that the informants in Czechia and the Netherlands reported the highest mean number of children (ca. 1.1), while the Italian informants reported the lowest number (ca. 0.5).

<sup>1</sup> There were 36 cases where this information was not available.

<sup>2</sup> Statistics on marital status are particularly difficult to compare across countries and cultures. Various notions of what constitutes a marriage as well as different notions of what constitutes the resolution of a marriage make this problematic. None-the-less, these statistics provide on some insight into the context of the interviewees and their life situation.

<sup>3</sup> The data for the Netherlands was somewhat fragmentary so this result should be treated with caution.

### **Comparison between groups**

The qualitative analysis that follows points to some differences in perception between those informants in the “neither”, the “mobile telephone only” the “Internet only” and the “both” groups. In order to set these differences into a slightly broader context we present here an analysis of the demographic differences between these groups.

The analysis shows that the mean age and the mean number of children is lower in the “Internet only” group. By contrast, both the mean age and the mean number of children is higher in the “mobile telephone only” group. There are no significant differences in either the gender distribution or the marital status of the groups.

	Mean no. children	Mean age
None	,90	37,49
Mobile telephone	1,26	39,54
Internet	,61	33,93
Both	,80	36,19
Total	,87	36,81

The fact that the youngest informant was only 18 means that the youth segment was excluded from the analysis. If this group had been included it may have drawn down both the mean age and the mean number of children in the case of mobile telephony.

In summary then, these statistics provide part of the background against which one can examine the other portions of the material presented below. It needs to be pointed out that the overall results cannot be seen as generalisable. Rather the data above are intended to provide the reader with a context against which they can judge the qualitative material.

### **Description of the how we did the research - the mechanics**

(To be added)

Describe and justify the organisation of the interview guide (c.f. appendix):

(To be added)

the introduction

the three social themes

the final section asking questions about technologies (and the future)

As noted above, one advantage of qualitative research (compared to the survey) lies in the flexibility it offered. This was exemplified in this research when, as part of the focus group reports, we collected the observations from the national bureaux involved about how well different sections of the interview guide were dealt with by the participants. This included issues of what they did not fully understand or where they found difficulty in talking about the topics. Then, half way through the research after 3 focus groups, the guide was re-assessed and some adjustments were made attempting both to introduce improvements and allow us to further investigate pathways and approaches which looked interesting.

The result was that some of the words were changed (e.g. ‘moving’ about instead of ‘mobility’), some of the headings were changed (e.g. ‘time pressure’ became ‘time use’), questions in the social networking section were altered to try to explore some new hypotheses and provoke more discussion and lastly a number of new exercises concerning future services were introduced (see appendix for a fuller account)

### **Data analysis process**

The mass of data produced in the 36 focus groups across six languages meant that a special approach to the analysis needed to be developed. A four stage analysis was used wherein the moderators and the secondary personnel were responsible for developing a series of reports with which to describe the focus groups. This allowed the analysis to be centralised across the various groups and for the researchers to gain insight into the important dynamics that occurred within the focus groups. We will provide a short description of the four ”orders” of analysis that were included here.

#### **First order analysis**

The 1<sup>st</sup> order analysis is the debriefing took takes place immediately after the focus group when the moderator and the assistant moderator tape recorded their immediate thoughts regarding the session. This debriefing included:

- An outline of the participants
- Special social dynamics (i.e. people that were particularly interesting or troublesome or conflicts between individuals)
- The most important themes that were expressed
- The most noteworthy quotes or citations
- Unexpected or unanticipated findings
- Contrasts with previous focus groups
- Points needing revision in the interview guide

The following day there was one final point that was added to the 1<sup>st</sup> order analysis:

- “Next day” reflections, i.e. thoughts or connections that have had a chance to suggest themselves the following day.

This report was to be sent to the Task leaders within 48 hours after the end of the focus groups.

#### **Second order analysis**

This constituted the core of the qualitative analysis. In was in this phase of the analysis that the moderators/researchers reviewed the tapes from the focus groups and extracted the relevant information. The material produced here formed the basis of the analysis presented here and in the various national reports. It was also here that the various concepts found their form for later development. An additional aspect was the timeliness of this activity. In the phasing discussion above one will note that the 2<sup>nd</sup> order analysis was to be carried out in the same week as the focus group and thus immediately after the 1<sup>st</sup> order analysis was completed the researchers turned to the second order analysis. The activity was to be completed in the space of 3-4 days. This

timing was to encourage capturing the sense of the focus group when the material was still fresh.

The basic method in this portion of the work was to re-listen to the tape recordings of the focus groups. The researcher listened to tapes 3-4 times, stopping as needed to note down issues and to clarify questions that arose in the sessions. This intense listening was intended to be a substitute for the more laborious transcribing of the material. Given the short time frame of the project and the multitude of languages involved this was necessary. Thus, while we were saving on the labour of transcription and later translation of the qualitative material, we were placing the responsibility of adequately describing the material onto the shoulders of the moderator/researcher. The specific points that needed to be included in the 2nd order analysis for each of the ICTs being considered (i.e. the discussion of the mobile telephones, PCs and the Internet) were as follows:

- What were the major ideas or opinions expressed when discussing the technology?
- Were there comments or ideas that were brought up several times?
- What was the intensity of the comments? Which emotions were used when communicating opinions?
- How specific were the comments. Did the people respond with generalities or were they more specific and concrete in their comments?
- Did the comments have inner consistency or were there hops in the logic?
- What more general concepts arose from the data?
- What “brainstorms” and associations came into the mind of the researcher when listening to the tapes? These were noted down as they arose.
- The collection of the interesting and illustrative comments and their translation into English
- Description of areas that needed to be considered in the quantitative analysis.

### **Third order analysis**

Where the 2<sup>nd</sup> order analysis was intended to gain a broad overview of the material, the 3<sup>rd</sup> order analysis was intended to capture the details embedded within each of the questions across the sites. Here there was a focus on the development of concepts and the comparison of those concepts across the various groups and countries.

### **Fourth order analysis**

The 4<sup>th</sup> order analysis consisted of a meeting wherein the information gathered in the previous three phases of analysis and brought it together. This was carried out through a weekly telephone conference among the Task group leaders and others. In addition, time was set aside at several of the project meetings to go through the various portions of the interview guide and the results of the focus groups.

### **Reflections on the Research**

In general, the focus groups research went reasonably well. The themes of the interview guide were discussed with, to varying degrees, the involvement of most participants. The only area where a number of groups had difficulty was

in envisaging potential future products, but that in part may reflect some of the time constraints of the sessions and hence the ability of researchers to develop a frame of mind more conducive to such reflections.

However one must remember that:

The focus groups do not represent the national population

The fact that when trying to make the cross-cultural comparisons, what emerged in the meetings is mediated by the national researchers.

### **The Logic of the Analysis**

While we had established before the analysis stage a range of sensitising concepts and areas of interest, to an extent the structure of individual chapters emerged from each researcher's interaction with the material

In each of the chapters on the three social themes we attempt to make some overarching observations based on the whole European sample of focus group participants. If the material allows it, we often proceed to consider differences especially in terms of national differences and differences between the group in terms of the ICTs to which they had access.

### **The Organisation of the report**

Turning now to the logic of the chapters, the section labelled 'part one' starts with an outline of some of the main theoretical considerations relating to time, mobility and social networks before moving on to three chapters each of which deals with one of these social processes. At the end of this section we try to summarise what we as researchers see as being some of the key implications for the future that emerge from the analysis - especially as regards developing new ICT products .

In 'part two' of the report we turn away from the analysis of the social processes and ICTs to a more direct focus on the technologies themselves in order to take a different perspective on the material. This helps to highlight further dimensions other than those developed in 'part one'. The chapter in this section draws upon responses both from the questions which were asked directly about ICTs and the numerous comments about various technologies which were volunteered during the course of the sessions - a number of which did not relate specifically to time, mobility or social networks.

The first part of the chapter deals with participants' overall responses to ICTs in general and their concerns about them. The next two parts of the chapter, one on the mobile phone, one on the Internet, cover such factors as barriers to acquisition, concerns and problems and, particularly for the Internet, additional dimensions of usage. The penultimate part of the chapter describes participants' ideas about and reactions to suggested future services while the last part returns to reflect up one of the key questions of the processes by which ICTs become domesticated.

## Part 1

### Social processes and ICTs

#### Introduction

The following results built upon researcher observations, summaries, participants' examples and quotes, which were formulated during in-depth discussions between the informants in each focus group.

The discussions revealed many different attitudes to ICTs. But the very act of discussing these issues also influenced some of the views of the participants in these groups during the course of the interviews. Simply asking participants to reflect upon their own behaviour and attitudes to ICTs seems to make a difference to their perceptions in that they raise points that they might not otherwise think about in their daily lives. However, we have not had the possibility to follow up on this dimension within this project.

One final introductory point is that the focus group discussions reinforced our awareness that our initial delineation of the three themes of mobility, time and social networks is somewhat artificial.<sup>4</sup> These themes are in fact very closely related. For example, social networks change because of increasing mobility and time pressure, while a person who is constantly on the road handles time very differently from a person who is not. This inevitably means that related points will emerge in the different chapters. But as this happens we try to emphasise each time why, analytically, this is also a time, mobility or social network issue.

#### Subjective dimensions

There are some general points that emerge in the following chapters that can briefly be mentioned here. The first is that in relation to all three social processes being discussed below it is important to differentiate between the objective and subjective dimensions. This can be illustrated through considering the case of time.

- objective time use is the time use which one can attempt to measure<sup>5</sup>
- the subjective experience of time refers to the perception of time e.g. what does 15 minutes feel like when you are busy or in good company compared to when you are bored. This dimension is critical for understanding people's perceptions of time pressure.

In principle similar distinctions could be made in relation to mobility and social networks. For example, recording the journeys people makes vs. investigating people's evaluations of those journeys; recording the interactions within social networks vs. exploring people's experience of those social networks.

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<sup>4</sup> As noted in the Dutch national report

<sup>5</sup> There can be practical difficulties in doing so and researchers have to make decisions about methodology, as illustrated in the field of time surveys. For example, there are issues concerning the time unit of analysis which one adopts (e.g. 15 minute periods) and how to measure and analyse time used for multiple simultaneous activities. However, the point here is that in principle one can try to categorise what people are actually doing with their time.

Both of these objective and subjective dimensions are important for understanding the attitudes and use of new forms of information and communication technologies. While the objective behaviour could be measured, we have not done so in this particular research. This is because we are more interested in feelings of, for example, time pressure, of being in control one's life or not and how people experience ICTs and anticipate that they will be used in the future. Participants' reports' of their objective circumstances are considered (e.g. their own assessment of their time use). However, the guide used for the focus group interviews (cf. appendix) concentrates mainly on their subjective experience, in all its guises.

### **Control, choice and obligation**

The second general point concerns whether and how much one has control over one's life. This emerged in relation to all these social process, although the issue came up more frequently, and hence receives more attention, in relation to time and mobility. We can usually see this issue in discussions where participants use the related, though not identical, terms of 'choice' and 'obligation'.

To give some brief examples at this point, how much people judge that they are in control of their time helps us to appreciate whether or not they feel that they are under time pressure. Some participants have a really hectic life occupied by a heavy workload and numerous activities but nevertheless claim that they do not feel that they are under time pressure precisely because they can stay in control<sup>6</sup>.

Another key point that emerges is that the degree of control that people feel they can exercise over their own movements has a major impact on how they experience mobility<sup>7</sup>. People who feel that they are making their own choices experience mobility more positively than those who feel they are being forced to be move around.

Finally, examples of this theme can even be found in relation to social networks. For instance, in Italy and Spain high proportions of young adults stay with their parents even when they have finished their education. When they marry or move out of the parental home through choice they continue visit their parents quite often and call them on the phone daily. However, although this is something that the participants from these countries want to do, maintaining such contact is also sometimes felt to be an obligation.

Of course, in all these and other cases 'choice' is problematic. It may be a choice to drive to distant shopping facilities, but it was not the participants' choice that those shopping facilities are located where they are. Meanwhile, participants have choices about using their time for certain purposes or maintaining social networks, but these 'choices' may be made against a

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<sup>6</sup> National culture and the spirit of the times may also influence how people feel. In some countries one can present oneself as being important by emphasising how one is very busy and stressed. In other countries this has changed so that people now present themselves in a good light by saying 'I am busy but I can manage'. Here the implication is that if you say that are not able to manage you are giving the impression that you are no longer in control of you own life.

<sup>7</sup> Noted in the Dutch report

background where these people also feel a certain responsibility to act in one way rather than another.

### Life stage

The third general point is that time use and the experience of time, mobility patterns and options and the nature of social networks and degrees of contact are strongly influenced by people's life stage, as, for example, household composition and obligations in working life change over the life course. This is once again brought out more clearly in the discussions of time and mobility, but observations such as the fact that people develop new social network through their children also illustrate the significance of life stage.

At this point we can illustrate this a little further through considering once again the objective use and subjective experience of time. A simple model is shown in figure two, but in reality there are more life stages - e.g. parents in households with small children spend more time taking care of them parents in households with teenagers (Klamer, 1998).

Figure 2

<b>From student to employee</b>	From a self structured daily life with a relatively high degree of freedom to being controlled by external factors and having problems co-ordinating with others.
<b>From no children to being a family with children</b>	From having much leisure time and the possibility of structuring it oneself to being busy and having problems co-ordinating with others
<b>From being a family with children to one's children move away from home</b>	Gaining increased freedom and leisure time and being more able to prioritise higher oneself and one's relationship/marriage.
<b>From employee to being retired</b>	From having an externally controlled everyday life to self management and a higher degree of freedom/leisure time.

Gallup,  
DK, 1999

### Time Use

#### Dimensions of time use - time pressure and use of ICT

Everyday life includes a large range of different activities, some of which are closely defined whereas others are more voluntary. The distribution of time as regards various activities can be illustrated in figure 2, which also demonstrates the close relations between time use, mobility and social network.

Figure 2

(To be inserted)

Lajla Klamer, Tele Danmark, 1997

To put the current research into the context of existing analysis of time, time-use studies show that, although there is variation between countries and variation within national populations, the amount of time in Western countries devoted to leisure has increased in the last 30-40 years (Bittman, 1998). This has arisen partly from people spending less time working, but also partly through their spending less time regenerating themselves (e.g. less sleep, less time for meals, Garhammer, 1998b).

However, the overall amounts of time devoted to different activities are only one consideration when thinking about the organisation of time in everyday life. For example, one other key trend that has been noted has been a faster pace of life in general (Garhammer, 1998a). On the one hand this includes a faster pace at work, but also a faster pace in consumption as we try to fit more activities into the same, or slightly expanded, amount of leisure time (Garhammer, 1998b). Other trends, mainly for those who are working, include 'time compression' (fewer breaks or rests in work and in consumption), and an increase in 'continuous activity' (i.e. round the clock shopping, work, transport, media). Obviously, just as there can be variation between countries in the average amount of time spent on different activities, so too there can be variation in relation to these other temporal trends.

Another observation is that while some of the literature discussing time pressures focus on those working full-time, there are many others in society, retired elderly people, unemployed people, those at home with young children, carers, those working part-time, etc., who might not experience these temporal trends so acutely. Hence the literature refers to 'time rich' as well as the 'time poor'.

Turning to the subjective experience of time, one apparent paradox noted in some of the time literature is that at the same time as those in work have gained slightly more leisure up, surveys show that they actually feel more time pressure. On the one hand this may be due to higher expectations, trying to fit more activities into leisure time (as noted above). In fact, in one German study, three-quarters of those surveyed said that they experienced time-pressure because they were trying to do too much in leisure time (Garhammer, 1998b). On the other hand, another suggestion is that it is actually other changes in the experience of time that bring about sense of time pressure. For example, people feel this pressure because they are increasingly required to use their time more intensely, perhaps doing several things at once, or because of the 'sheer number of separate activities... (leading to) a succession of short, frequently changing episodes of activity' (Bittman, 1998).

Once again, there are national variations in perceptions, reflecting not just different experiences but different expectations. In surveys asking working people if they felt rushed, 25% said yes in Germany compared to 11% in Spain (Garhammer, 1998b).

One point to add is that even within countries, different sections of the population need not experience a crowded timetable of activities as 'pressure' - for example, some find it stimulating. And certainly those involved in what has been called more 'passive' leisure activities (e.g. TV watching) have not necessarily felt 'pressured' nor, surveys suggest, have young workers spending

time in pubs, cinemas etc., whose social life involved a large amount of social communication (Garhammer, 1998b).

Both of these dimensions influence the strategies people try to adopt in relation to the organisation of time and to cope with time pressures of various kinds - which has an impact on the attitudes to and use of new ICTs. These strategies do not relate just to the saving of time but also its more efficient management.

### **Time pressure - a question of many possible activities and how to manage them**

We now turn to the results of the focus group interview when the main results are can be summarised:

- Being busy is not experienced in purely negative terms.
- It is a side effect of the involvement in job or leisure time activities.

All the focus groups acknowledged that working hours have been reduced, thus allowing more time for leisure activities, travelling and various hobbies.

Reflecting the previous research on time outlined above, the vast array of possible new activities has absorbed the time that has been spared from work. At the same time an increased pace and fragmentation of activities have been experienced.

Among the participants we find a strong division as regards the perception of leisure time. In addition to working time there are many other obligations such as the need to go shopping, to clean the house etc. or else people find themselves losing time stuck in traffic jam. Such commitments or lost periods are not regarded as being free time for one's own leisure (though one Dutchman finds that traffic jams provide the possibility to sit and relax).

Instead, these are some of the factors creating a sense of time pressure - e.g. Spanish women indicated that they lack time because they have to take care of children. So the time outside working time is divided into time for other obligations and time for yourself. The latter is considered as being real leisure time.

Sometimes the participants find it difficult to differentiate between these categories of leisure time. For example, a young man who is a scout-leader in his leisure time really likes this role, but sometimes there are so many meetings in a week that

*(M26) "I feel too tired to go, but I go anyway because I feel obliged"*

*(DkB)*

And he does not want to disappoint the others. Yet he and many of the other participants claim that they are not under time pressure precisely because they can choose themselves, they are in control and they can make priorities. The exception is in Czechia where the earning of money appears to be the most important consideration, so men especially often have more than one job.

In all groups it is the question of being control of your own activities which is the key point. If busy people find free time in their diary they do things like going to the beach, going to the café or engaging in other spontaneous activities.

In general we can summarise the discussions about time use and time pressure in the following main points:

- It is a choice whether to live a life without too many time commitments in order to maintain a certain quality of life or alternatively to be involved in (too) many activities and feel under time pressure. Being busy does not automatically mean one feels that one is under time pressure as long as one wants to take part in these activities and one feels in control.
- The time tied up by obligations is not quite a free choice but is determined by the composition of the household, where the age and number of children are the most important factors which can create the feeling of a lack of time and time pressure in every day life.
- There are gender differences in the perceptions of time tied up by obligations and in how males and females cope with the situation.
- Elderly people claim that they do not have time enough because they are doing so much but also because things simply take longer time when you get elderly (NL, Cz)<sup>8</sup>  
*(M64) "Now I want to catch up with everything I had no time for in my former life. This makes me create another stress: I do not often get around to reading books because I have all those newspapers..." (NloM)*

### **Differences by ownership of ICTs**

We had expected to find different time use patterns and attitudes to the new ICTs between the different user groups but in practice such differences are not a clean cut. Sometimes there are more differences within a group and sometimes the differences reflect different national cultures, education or income. It is the whole nature of the everyday life, which defines the extent to which people feel time pressure, and not only the degree of ownership of ICTs. But we do see some main tendencies e.g. that it is in the non-user groups that we tend to find more people who do not experience time pressure.

#### **The "neither mobile phone nor Internet" groups**

People here are divided between those mainly younger participants who would like to have new ICTs but who cannot afford them yet and those who think that it is better to be without, that they are not necessary or even that some ICTs will destroy the quality of life. Their patterns of time use and experience of time pressure will not be the reason for them to acquire these technologies. The main statement coming from the majority of these people is that use of time has changed but time pressure is not a problem for me personally.

Once again, people seem not to mind being busy if they are in control of their own lives and enjoy what they are doing. Everybody knows other people for whom time pressure and stress are a problem - especially those with mobile phones! Several expressed the view that other people have diaries with so many appointments that it is difficult to make new appointments.

*(F51) "Sometimes I cannot make appointment with others before after three weeks because they are busy"(DkN)*

#### **The "only mobile phone" groups**

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<sup>8</sup> The theoretical assumption was that retired people feel less time pressure, but it turns out among several of the elderly people in this research, that they do not feel they have time enough

These groups seem in general to confirm the assertion of the neither groups, i.e. that a mobile phone make people more stressed. Many feel an obligation to be reachable all the time, they have to answer the phone and they have to give information immediately if something unexpected occurs - e.g. delays. On the other hand, a mobile phone is useful and time saving. Some in this Italian group work freelance or are retired, which gives them more flexibility and less stress. The French group emphasises less the time stress dimension and more the increase in the pace of life, especially the pace of life in Paris compared to provincial towns. But they still claim to be in control most of the time.

*(M) "Everything is more stressed and hustled nowadays. On the highway you are in a traffic jam, everywhere it is busier. I think people get stressed by that already" (NloM)*

### **The "only Internet groups"**

These groups generally admitted to having less disposable time (Cz, Fr, It, Es and NI)

*We have too little time to spend... there are so many things that we want to do and it is difficult to do them when you work*

The participants indicated that it is becoming ever more important to know your own limitations so as not to be overwhelmed by them. You have to make choices, set priorities and sometimes pull out the plug (NI). The availability of new interests, activities and friends on the Net has caused a further decrease in disposable time apart from the time necessary to master and update one's technological skills (Cz). In this group the Danes find that there is a blurring between working life and leisure time and they see this development as a positive aspect of everyday life.

### **The "both mobile and Internet" groups**

These people, who both own personally a mobile phone and have access to the Internet, talk about the huge number of different activities which make them live an active and rather hectic life, including in their leisure time. But these people like to be busy. When they are in control they do not feel stressed but see it in a very positive way, as having "*so many interesting and nice things to do*".

*Quality of life is important. They wish to manage more activities and like doing so, but for some it is more than they are capable of managing.*

It is the multiplication of activities which compels them to choose and to organise the time. You have to decide and prioritise and then you can manage.

*(M47) "Many people including myself like to work with tight deadlines" (DkB)*

*(F33) "I am not scared of the time pressures. If I want to do something I will do it without organising anything. Whoever bewails the fact that he or she hasn't time enough uses his or her time badly..." (ItB)*

*(F24.) "As a matter of fact I have time for everything. Sometimes I make time for things I want to do" (NlB)*

*(F26) "I have no restraints, no need to organise my way of living. The only restraints I have are the ones I have created for myself. They are not imposed". (FrB)*

Once again, several of the participants express the view that when they find a few hours free they tend to fill them with new activities (Dk) and wish to manage more activities than they are capable of (Cz).

(F30) *"It is because you have so many different possibilities" (DkB)*

### National differences

As mentioned before there are national differences with regard to how people articulate their sense of time pressure as opposed to being in control of own life. Among the *non-users* in Czechia, Denmark, France and the Netherlands no one agrees with the statement that it is difficult to find time enough for all the things they have to do. People express more the fact that they have a hectic life but can manage and they enjoy what they are doing.

(M35) *"I teach sailing one evening a week. It's a real rush to leave work on time, but it's your own choice. You don't mind if it is something you enjoy."* (NIN)

(M45) *"I have enough time to be able to provide it to others"* (CzN)

But in Italy and Spain people in all the groups generally say that they do feel time pressures:

(M28, F30, M50, M55.) *"Time is never enough; there are always too many things to do".* (ItN)

(M31, M32, F35, F42.) *"I should have 48 hours per day for doing everything I have to do"*(ItB)

Apart from the first non-user group in the Netherlands, the other Dutch groups express the feeling of time pressure and stress:

(M56): *"There is so much you have to do. When you are not able to keep an appointment you postpone it to the weekend, in which you in fact had planned something else."* (NIN)

(M48) *"In principle we have more free time, but I have the feeling that the stress is increasing"*(NlO)

(F51) *"I am just fed up with it, that busy, busy, busy. The point is that you should enjoy what you are doing. On Mondays I go to my allotment.*

*That's what I call a good day, you can't buy that."* (NlO)

And to exemplify the willingness to organise time and to keep your activities under control in France.

(F26) *"I manage to do what I want"* (FroI)

(M25) *"If I cannot do something during the week, I do it over the weekend"*(FroI)

In the Danish focus groups nearly everybody claimed that it is a question of prioritising activities to avoid time pressure. Stress is related to the work situation. In general they live a hectic life but think that it is their own choice and that they can manage even with children in the household.

The quality of life is very important e.g. in France and Spain, which leads to the priority of a life without stress

(M32) *"For me, regarding quality of life, it is time"*(EsB)

(F35) *"I was living in USA and there everything is about the dollar. Here there is a leisure time culture. Spanish people look for quality of life.*

*(EsB)*

In Czechia the political change has had an immense influence on time use. Men in particular seem resigned to their lack of control over disposable time, which is almost sacrificed for employment engagements and duties.

*(M)"Apart from my job, I'm building my house. But I cannot afford to pay a group of craftsmen to help me. So I am in a big rush"(CzoM)*

Another difference is perhaps not so much a national difference as a question of city life as opposed to the provinces e.g. in France the group in Montpellier expresses a certain longing for the time where everyone took more time and the pace of life was slower.

### **Differences by life stages and gender**

As noted earlier, life stage is decisive for the time use and feeling of time pressure. We find complaints that when people start working, they have got less time for themselves and less flexibility in their timetables: their rhythms are marked by their working times. The Danes (oM) state that it is when you grow older and get more responsibilities at work that you get more stressed.

*(M22) "I'm a student and I can organise my time as I want"(ItB)*

In contrast to the young and independent people with time enough on their hands, the families with children have a lack of time, which is not regarded as the same as time pressure. Also the age of children is decisive for the time use. Elderly people admit a subjectively perceived lack of time, which is associated with getting old simply because things take more time.

Especially in Spain the unemployment among young people is quite high. These people are forced to have free time that they do not appreciate as leisure time.

*(M25) "I do not have anything to do till 8:00 p.m., when some of my friends come from work and we go out to have a beer" (EsN)*

Women relate time pressure to the fragmentation of their daily responsibilities, where they manage not only their work but also the housework and their kids (CzoM), but it is difficult to find time to take care of all the things they have to do.

*(Traditional females)"Never leave home until it is fit to host a guest"(CzoM)*

Some women even feel obliged to take care of their children and they lack time to take care of themselves (Es.NI, FroM). Solutions for easing up time pressures which are mentioned include having a secretary or a home-helper and reducing working hours. These seem to be essential as having electronic or communication devices.

*"I have not time during the week. I am taking care of the children and doing domestic tasks. It takes all my time, only having little breaks".(EsN)*

Women use different strategies to get some free time - e.g. a woman in Czechia allows herself to get intentionally delayed.

*"There's not much free time really. So if I really need some, I just give in and spend a little extra time at a friend's place – a boutique or café they run...I don't waste time, but I can spend an hour walking from the tram station and chatting with neighbours that pass by. It's very recharging." (CzB)*

### Time pressure at work

Although the time spent at work is a part of the objective time used in every day life, this research is focused on the residential users and the time spent outside working hours. Nevertheless we find many comments about working life when the discussions turn to questions of stress and time pressure.

- The experiences of working life shapes peoples' feelings about time more generally
- Work is one place where things are not so much under one's own control.
- Anything removing people's control over time is experienced negatively.
- Jobs are often becoming more and more demanding. The increased efficiency in job situations is reflected in the fact that interviewees from all countries claimed to be under more time pressure in their working life than previously.
- The exceptions are especially found in the only Internet groups, where some of the respondents are working from home at their own pace, which might be hectic but they like it.

Returning to the main findings, many of the interviewees feel that their workload is heavier than it used to be and that the pace has risen.

*(M35) (Mechanic) "Customers these days are more demanding" He added: "The pressure of work is high. We have to do more work with fewer people. We have twice as many customers but no extra staff."*

*(NIN)*

Respondents see workload as culturally defined. Some have experienced life in other countries such as Portugal, Canada and southern France, and said that there is a different work ethic in those countries: people are much less stressed and have more free time. The work ethic in America and Japan, on the other hand, is different again, and people work much harder: they live to work instead of working to live.

*(M25) "It is true saving time is important in work questions but the businessman looks for productivity (...) you can do in three hours what you did in eight hours, but it does not mean your working day is reduced in equal proportion, what happen is that you do more tasks".(EsN)*

We find quite a few respondents who think it is all right to be busy in working life as they experience the blurring between home and work as mentioned above. But there are different opinions and attitudes within the groups.

*(M25) "I do not see my friends and engage in leisure activities as much as I want because so many things happen at my work all the time and I have to cope with it also on the Internet." (DkoI)*

### National differences

In Czechia the necessities of being responsible for earning money for the family put more pressure on the respondents and make them accept bad conditions.

*(M25) "Nowadays a lot of people go to work even though they are ill so as not to lose their jobs"(CzoM)*

In the Danish group all the participants relate time pressure to the job situation and they try to get so much control as possible over the working hours.

(M56) Bus driver "Sometimes I look forward to be off and then 10 minutes before I finish I am asked to work overtime because a colleague is ill or something else"(DkoM)

(M55) Taxi driver "The best time of the day is between 1am and 5am. At that time there is no traffic and you can get things done. It is much easier to hurry in the night."(DkoM)

(F53) "Today you are also aware when you work too much" (DkoI)

(M23) "I think it is a reaction to the 80s. Now it is important that you do not work all the time. Now you are more aware of the free time"(DkoI)

The French protect their private life by using answering machines as a control of incoming calls and turn off the mobile phone.

(M25) "We have to protect ourselves from work in the evenings. That time is for us" (FroI)

(M28) "Employers try to take some of my time. If my boss asks for my private phone number, I do not give it. ... I do not want to bring work back home" (FroI)

### **Differences by life stages and gender**

The time use and control of ones own time is linked to the different stages of life. At school and university the respondents find most time of own control, when one starts working, there are less flexibility in their timetables: their rhythms are marked by their work times.

(F30) "When I was a student I had much time; since I'm a worker I'm more pressed"(ItN)

Some men are working a great deal e.g. in Czechia men identify themselves as breadwinners. More work and more income provides a feeling of assurance. Some have two jobs in order to secure the family. In other countries (Fr, Es) some women have more time because their husbands are the ones who work more to get sufficient income for the families:

(F44) "When they ask him to do something in the evening, he cannot refuse. He gets the money for 5 people."(FroI)

### **Relationship between home and work**

The blurring of the boundary between working life and private life is seen as being especially important by those who have the possibility of flexible work or telework. We find respondents who feel that flexible work and telework makes it easier to organise their activities at home. But we also find quite the opposite opinion, that there should be a very strict border between home and work. Sometimes the interviewees do not see the differences between the categories and think, for example, that with flexible work you will never go to the workplace and have colleagues.

Another point which influences time use is the change over from fixed working hours to the 24 hours economy, especially within the service sector. This influences not only people's working time but it also makes it more difficult to make arrangements with their social networks.

(F) "Different schedules make it difficult to have a meal together"(NloM)

It is not the technology in itself that can be either a problem or a solution rather it is the way it is used. It opens the opportunity of more flexibility and control of ones own time use, including when the working hours take place. (Dk)

### **Differences by ownership of ICTs**

In the neither and only mobile groups we find mostly negative opinions about the possibility of working from home - although both positive and negative things are said about teleworking. In fact, none of the respondents has personal experience with this kind of job but the dominant attitude favours keeping work and home separated. On the other hand we find positive attitudes to flexible working hours within these groups.

Not surprisingly the most positive attitude to telework is found within the only Internet groups and the both groups although they also point out some of the negative aspects as working too much. In these groups we find the strongest blurring of the boundaries between home, leisure and work. All kinds of telework from working at home only now and then to teleworking all the time, as well as distance study and all kinds of experiences with the Internet are mentioned in these groups with strong influence on the planning of time use.

*(M31) IT-consultant "Leisure and work mingle"(DkoI)*

In general these interviewees find that flexible work makes life easier. When you are teleworking, you might do other private things in between, as long as you perform your job well. You have fuller control over the planning of the workdays. On the other hand, it is important to keep the contact to the colleagues or fellow students so the time spent at home should be limited.

*(M31) "You might lose information if you work at home"(DkoI)*

*(M45) "I can work everywhere: I transmit and I receive fax and e-mails with my mobile phone and my portable PC. So I don't distinguish between the place of work and home". (ItB)*

*(F35, F42) "Flexibility is OK but in any case, you have to distinguish between working activities and leisure ones". (ItB)*

The respondents agree that teleworking will grow and you might even do it when camping (N1).

This prediction will change the whole organising principle of every day life with different time use on different days. It will influence society as a whole with the bearings on mobility and services e.g. e-commerce.

### **National differences**

While flexible work in general is regarded positively across countries, since the time schedules are not so sharply formulated, we find very different national opinions and attitudes to telework. This apparently reflects different experiences and opportunities to have these kind of working hours. This is regarded as a positive aspect of everyday life in Denmark and France whereas in, for example, Italy the respondents prefer a more fixed time schedule and in the Netherlands they prefer sharp borders between work and home.

In Spain many respondents regard it a bit difficult to work at home as you need to be very organised and responsible. One man thinks that you would gain more free time:

*"It will be nice, especially without control" (EsN)*

*(M25) "I lost my last work because I had a flexible time table and I was not enough organised nor responsible".(EsN)*

*(F31.) "Technology is suitable, but my working day is extended at home"(EsoI)*

Many prefer not to remove the border between home and work

*(F25) "When I am in my home I want to be with my loved people, not working or doing another thing".(EsN)*

This last opinion is also dominant in Italy, although those who have actually experienced the planning of working time and taking care of the family themselves find that they are less stressed than others are because they can organise their time and activities during the day. The Italians who have flexible work appreciate this possibility.

*"Homework takes away time to relax yourself"(ItN)*

*(A freelancer) "Sometimes I have to work in the afternoon and I can sleep more in the morning"(ItoM)*

The different opinions in Italy are found within the same group e.g. the "neither" group:

*(All except M28 and M50) "A fixed timetable (without homework) allows you to organise your time better" (ItN) )*

*(M50): "I have the most timing elasticity, and I like it very much" (ItN)*

and in the only Internet group:

*(f36, m47, f27, m24) "I prefer to organise my time following fixed timetables. The reason is that my attention is attracted by many things and so a rigid timetables help me to be more productive"*

On the other hand

*(f37, m29) " I think telework is a good way of working. I can work at home in a quiet way. An important thing is to have definite aims so you don't risk wasting your time"*

Another Italian participant complained that she could work at home using the Internet but that it makes her working day longer, so when she is at home she can not take care of the children or be with them.

The Danish groups generally have better opportunities to organise their private life and working time in a less stressed way, without working more or less than you should.

*(M44): I have 7 weeks holiday (as teacher) and at the end of the holiday I look forward to work again. In fact I like my organised everyday life - because I have flexibility within my job, which I appreciate very much. I do preparations at different time. (Dk)*

*(M25) Webmaster "I cannot differentiate between leisure and work. I use 40 hours a week on the Net and even the things I do for fun might be useful for my work and the other way round"(DkoI)*

On the other hands there are concerns about the fear of being isolated and lose contact with colleagues

*(M23) "You also need to see other people. Sometimes I read at the university in stead of at home just to meet the others"(DkoI)*

In the Netherlands people are generally against teleworking but also here the opinions are differentiated e.g. a teleworking translator emphasises that she

works in a far quieter environment than others do and she is better able to combine work and the education of her children. Another positive attitude is:

*(M28) "Ideal, it saves two hours of travel a day and it is far nicer at home. My wife and children are there too; you make another division of activities during the day: you are able to do things in between for which you otherwise would have been obliged to take a half-day off." (NIB)*

The negative attitude is not only about the time taken away from family life but also a concern about loneliness:

*(F59) a woman complaining about time pressure "I would not like it, working at home. I would miss my colleagues and the hustle and bustle at the workplace. At home you are just alone!"(NIB)*

### **Differences by life stages and gender**

Especially women with children appreciate the possibility of teleworking some days a week.

*(F25): "I am not quite sure. There are benefits of both fixed hours and flexible hours. It might be an advantage when you have children, that the couple might be able to work at different hours, so the children are not so long in day care." (DkN)*

*(F40) Freelance accountant "I work at home. I have lots of time to do everything before the children and my spouse comes home. I have half a day available for things other women must do in two or three hours". (CzoM)*

### **Composition of household and family obligations**

The composition of the households has a natural influence upon time use and has consequences for feelings of time pressure. The respondents emphasise that the family and age of the children determine their perceptions of their disposable time and influence the way that they manage leisure time activities. When there are young children in the family, the time patterns of the adults is very much determined by the need to take care of them. The older and more independent the children are, the more free disposable time the parents have available to them (Cz, Es, Fr, and Dk). Some participants try to find time at the weekends to attend to the family, but even so they find it difficult because they have to pay attention to other obligations which could not be dealt with during the week (Es and Fr).

*(M36) "Single people do not have to devote so much time to their families." (CzN)*

*(F27) Divorced "Before I got a child it was easier to plan. Now I coordinate a lot with the father and I do not have to be at home" (She has bought a mobile phone) (DkoI)*

There appear to be national differences as regards the degree to which children influence the time stress experienced by their parents. In the Netherlands many women are working part-time and in Spain several female respondents are housewives, who feel more time pressure with no time for themselves - although in the "only mobile" group, two mothers regarded being with their children as leisure time. In Denmark most children are in day care centres 5 days a week while the parents are both working full time, putting more time

pressure at the family life when they are at home. But in the Danish cases the parents find it a question of organising daily life and both men and women are involved in the household work and take care of the children.

(M33) *"When you have got a child you prioritise in another way and you manage to do more things because you organise better."* (DkN)

In contrast, a Spanish woman lives with her mother. Even though the mother helps her by taking care of her child, she not feel she has enough leisure time. In general we find only few hints about gender differences, but underneath some quotes we find the traditional division of work taken for granted - e.g. the responsibility of the children is very much a part of women's work.

(F39) *"Since my daughter was born I have a lot of things more to do in my free time"* (ItN)

(F4) 3 children *"I am taken up by my work, my children. I do not have as much time as I used to"* (FroI)

(F31) working 2 children *"My ambition is to have time to live"* (EsoI)

In the Netherlands some working women declare that they feel like victims of increased time pressure. The combination of family tasks and a paid (part time) job create stress.

(F49) *"With a husband and kids you have a lot of duties that have to be done first before you may do something else. In the evening I sometimes cannot bring myself to go out, for example to the sport-club. The family has first priority".* (NIB)

The retired participants and those with grown up children consider themselves to have enough free time. They do not have to take care of children, who lead separate and independent lives and they have a correspondingly lower number of household duties. This reintroduces into the respondents' life another pattern of time use - being able to go and visit a friend or go away at the weekend without prior planning.

(M49) *"I have got more time after my son moved away from home. I spend the extra time mending my old house".* (DkB)

But also among retired people it sometimes is not only enjoyable and choice to see the family but it is also felt as an obligation, which takes time

(F55) *"I have got grandchildren - now I have to rush around and visit them"* (DkB)

When the children are grown up and have left their home there is another kind of learning how to manage time, which means decode oneself from the pattern of a strict, organised every day life.

(F49) *"On the contrary, my children are now in the twenties. But as they were close in age, I had to impose discipline on myself. I am still very organised although I have more freedom. I must start taking time for myself again".* (FrB)

From another perspective, the responsibility of taking care of and often visiting parents influences the time use of the grown up children in different ways. For example, an Italian woman thinks she was too stressed before resigning from her job because of work and meeting with her and her husband's parents (who both live far from Turin) during the weekend.

The principal changes in time using also come out from taking care of elderly people you love e.g. a Danish unemployed woman uses up much of her time taking care of her sick mother

*(M50) "...at 12,30 every day I go to my mother to take her lunch" (ItN)*

### **Leisure time activities**

The participants expressed the view that today there are many possible leisure time activities in which to participate - for both children and adults. Some of the participants who are involved in organised leisure times activities may occasionally feel too tired in the evening to go out in order to participate. But when they are there they feel good about it. Others have decided not to participate in organised leisure activities like their friends do in order not to be booked up all the time.

*(F53) "Even though it is interesting I also find it hard to go on course in the evening"(DkoI)*

*(F47) "I had decided to learn to swim and I do go every Thursday"(DkoI)*

Some of the organised leisure activities are sports and other club activities, but there are other activities like voluntary work - e.g. two Danish female students have both taken part in voluntary work, one in connection with exchange students and the other in the Central America committee. Currently neither has to make priorities to find the time for this sort of work.

Priority is a key word for understanding how people engage in leisure time activities. When time is a scarce resource - e.g. when students both study and work - then the priorities do not leave time for this sort of leisure unless people are very idealistic. Leisure time activities such as sports have higher priorities both because they are fun and healthy. In one of the Dutch "both" groups many respondents were active in committees of different associations and took part in other educational courses.

*(M29) "I used to take part in combat sports, but now I'm taking two educational courses, because you have to set your priorities" (NIB)*

### **National differences**

There are national differences in the degree of participating in organised leisure activities or engaging in spontaneous activities. The respondents in Czechia and Denmark are quite active in their leisure time. In Czechia the participants spend a lot of time playing regular sport or in organised leisure-time activities like cycling, swimming, jogging and singing in a choir, as well as seasonal hobbies like gardening and cross-country skiing. All of these activities are a means of relaxing and meaningfully using free periods of time. People from villages/Prague outskirts feel they have more disposable time, but they only have limited access to free-time activities. Therefore, they are forced to plan their leisure time more carefully because they are dependent on places of interest located in towns/cities. Whereas in towns/cities, the availability of free-time attractions encourages people to plan their free time better.

In Denmark the respondents enjoy many organised leisure activities in clubs, as badminton, sailing, cycling, flamingo dancing and hockey, and more spontaneously go to the beach or to engage in other activities such as camping

and taking care of their summer cottages. A group with younger participants also has a café culture where these young people see friends often at private homes or out at cafés. These activities require time planning but are given high priority because they also are relaxing compared to work and other duties. Different kinds of work can also be a hindrance to taking part in organised activities e.g.

*(M48) "It doesn't fit in with my life to attend activities on fixed days, when I travel so much as I do. I am usually at home during the summer, when few activities are going on." (DkB)*

In France the respondents choose and give a priority to private life including a many leisure activities, as music, skiing, sailing, sports, dance and travelling. But they never mentioned time pressure as a problem in this connection.

In the Italian group the participants engage in many activities like skiing, riding, playing piano, painting etc. but only a few are organised activity. These activities are not tiring but purely from free choice.

In Italy the opinion is that leisure activities should never be a pressure though it might be necessary to play organised sport on a particular day of the week - otherwise you risk not doing it at all! (ItB)

*(F25), (F30), (F39), (F47), (M51): "You have to manage your leisure activities punctually. If you like these activities you prefer to organise them. Organised time allows you to have much more time" (ItN)*

*On the contrary others state (M27), (M28), (M50): "Free time does not have not to be organised in fixed appointments. A strong interest could be in a fixed timetable, but only if it doesn't become stressful for you" (ItN).*

*(F26) "I like to dance but when my teacher asked me to dance every day for many hours I felt stressed and what was an entertainment became an obligation. So I stopped..." (ItB)*

Interestingly it was only the respondents in the Netherlands who do not mention organised leisure time activities at all, but other leisure time activities such as going to concerts were mentioned as an activity.

In Spain the opinion is that leisure time should not have a rigid timetable so not so many organised activities are found. One Spanish woman only engages in leisure time activities at the weekends, such as walking around, going to the cinema, and so on. She usually does those activities with her husband and her children.

### **Differences by life stages and gender**

Children's activities put more time pressure on the parents as these activities also demand time from the parents bringing them to these activities or taking part in arrangements in the club. This is often seen as not only an obligation but also as a way of taking part in the children's activities. It is also a pleasure to see what is going on but it involves the time schedule of both children and parent. In other cases the children's organised activities are seen as a way of giving the parents some free time while other people take care of the children.

*(F55) "My son was a swimmer. I have spent hours and hours in steamy swimming baths." (DkB)*

*(M44) "I am under stress at the weekend too. My children are 5 and 12 years old and need a lot of attention - they go to a sports club and you have to take them and collect them. I'm the only one in the family who can drive which put quite a lot of pressure on me at the weekend". (NloI)*  
*(F53) "The activities of the children have grown a lot. The parents are working so much that it is also seen as a way of occupying the children" (DkoI)*  
*(M47) "When the children were small I used to be updated on the children's hobbies and activities a lot of the time.... I found it a pleasure to drive the children to the scouts hut, then we also got the chance to see the scout hut" (DkB)*

In Spain women handle their working time in order to be able to do other things. Men handle their leisure time in order to pay attention to other obligations. Another item we noticed was that fathers try to get their children interested in their hobby, so that taking care of the children and enjoying the hobby can be managed at the same time.

### **Time use - Time pressure and ICTs**

The relation between time use, time pressure and the use of ICTs is quite complex. The interviewees show different attitudes to the question of whether the use of ICTs is time-saving or has opposite effects: taking up uncommitted time, leading to more time pressure or taking away time from other activities. For example, surfing on the Internet may lead to addiction where one wastes time or might become a slave to the mobile phone leaving no time for oneself. Yet, the mobile phone and the Internet are also seen as making it more easy and convenient to organise various activities - including co-ordinating tasks, planning, seeking information, communicating, etc.

The differences in attitudes to the use of mobile phone and the Internet occur most clearly between the "neither groups", without access to mobile phone or to the Internet, and the user groups where the participants have different experiences of the possibilities of ICTs. But differences also appear within the groups and we find differences between the countries.

On the one hand we find the opinion that the availability and general usage of ICTs have caused a further decrease in disposable time - i.e. due to one becoming more easily reachable and contactable all the time, due to the time necessary to master and update one's technological skills, etc. But on the other hand, although time-consuming, ICTs also generate opportunities to find new interests, activities and friends, which might be positive in terms of one's quality of life. In other words, there is a trade-off.

To be able to stay in control of one's own life and to keep (or retrieve) the quality of life, at a slower speed and without being reachable all the time, is regarded as a very important issue. This point is particularly strong in the material from France, Spain and the Netherlands.

### **ICTs as time saving opposed to taking up time**

In order to get an overview of all the statements about positive and negative effects of ICTs, like "this is time saving but on the other hand. . . ." these statements are collected in figure 3, as statements regarded as time saving as

opposed to taking up time. Among the user groups we find that both the purpose of use and the time elements are very different between the information and communication parts of the Internet, so we have accordingly divided the figure to provide separate e-mail and Internet parts.

**Figure 3**

	<b>Time saving</b>	<b>Taking up time</b>
<b>Mobile phone</b>	<ul style="list-style-type: none"> <li>• Communication is easy</li> <li>• Co-ordination and multi-tasking between family and work is possible e.g. providing information about changes and spontaneous decisions (<i>CzoM, CzB, Dk</i>)</li> <li>• Transport and communication can be combined (<i>DkB</i>)</li> <li>• You maximise time while waiting (FroM)</li> <li>• You decide when you wish to be reachable (<i>DkoI</i>)</li> <li>• In case of emergencies (all)</li> </ul>	<ul style="list-style-type: none"> <li>• Being reachable and controllable anywhere at anytime generates stress (<i>CzN, DkB, FrN, NI</i>)</li> <li>• One feels obligated to communicate</li> <li>• Mobile phones take up time interrupting face-to-face meetings and disturbing people. (<i>EsN</i>)</li> <li>• The amount of information may become overwhelming</li> </ul>
<b>e-mails - the Internet as communication</b>	<ul style="list-style-type: none"> <li>• Communication is possible 24-hours. You decide yourself when you want to communicate and the receiver decides when to read the mails (<i>CzoI, Dk</i>)</li> <li>• Bridges intercontinental time zones so you do not have to worry about the time difference (<i>NI</i>)</li> <li>• Communication is fast (<i>CzoI</i>)</li> <li>• Might save having to make a visit (<i>NI</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• The sender often expects a fast reply (<i>DkoI</i>)</li> <li>• E-Mail can be anxiety-inducing if it does not arrive (<i>ItB</i>)</li> <li>• Every e-mail message generates additional work (<i>NI</i>)</li> </ul>
<b>The Internet as information, work, leisure, e-commerce</b>	<ul style="list-style-type: none"> <li>• Enables easy access to information which might otherwise be inaccessible (<i>CzoM, DkN</i>)</li> <li>• Useful for studies (<i>Es, Dk, Cz</i>)</li> <li>• Telework reduces travel time (<i>all</i>)</li> <li>• You can work on a document till last minute (<i>DkoI</i>)</li> <li>• You can get clear directions for example for travel purposes and get to where you are going more quickly (<i>DkB</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Chatting often takes up too much time (<i>DkB</i>)</li> <li>• Surfing on the Internet might become addictive (<i>several groups</i>)</li> <li>• It is still too slow if you do not have an ISDN line (<i>ItB, EsB, DkB</i>)</li> <li>• "If one isn't selective and doesn't know what one's looking for, surfing, information search and shopping may take too long ..and consume disposable time" (<i>CzB, DkB, ItB</i>)</li> </ul>

	<ul style="list-style-type: none"> <li>• You can shop at your convenience and access other services 24 hours a day e.g. to plan journeys and conduct banking affairs (<i>DkoI, DkB, NI</i>)</li> <li>• Shopping is easy if one is goal-oriented (<i>DkB, Es</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Telework might invade leisure time (<i>Es</i>)</li> <li>• It takes time to develop into an experienced searcher (<i>several groups</i>)</li> <li>• Generally, the Internet takes up time which one should have used for other things (<i>CzN, DkN</i>)</li> </ul>
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The respondents generally expressed the view that if one applies these new ICTs in a selective and targeted way then they can be time-saving. Thus, the thing is to become familiar with a service and not to use it excessively, but rather limit its use to specific situations, though the Internet users find it acceptable to use the Internet just for fun.<sup>9</sup>

The experience of being busy is not a reason for acquiring a mobile phone or access to the Internet. In fact, a sense of time stress can have the reverse effect e.g. in the Netherlands some respondents (M26, F23) gave up their mobile phones, with one man arguing that he did not like to be called all the time. Many interviewees relate the use of mobile phones and Internet to the job situation. The new technology might be necessary and time-saving but on the other hand it puts pressure on the people working there and in some cases there is a fear that new technologies might lead to unemployment (*Es*). On the other hand, in Czechia the experience is that a mobile phone might be necessary to have for work, especially if you are self-employed.

### Differences by ownership of ICTs

In the "*neither*" groups the main attitude is that in general that new ICT are not fundamental and will not help in co-ordinating their activities. Further this group of informants feels that the mobile phone might even create stress! They find that the owners of mobile phones never have leisure time in peace and quiet. When considering the Internet some may want to have access in order to seek information but they fear technical problems. Anyway they feel that it will take time to learn how to use and master the Internet.

*"New technologies allows you to practise more activities but they make you frenetic and stressed" (ItN).*

We find life stage differences, where the younger participants think it will be both helpful and time saving to have mobile phones and Internet, so they want to get them when they can afford the technologies (*Cz, Dk, Fr, It*).

Furthermore, they do not mind if the Internet becomes time consuming as long as it is fun (*Dk*)

In the "*only mobile*" groups the mobile phone is found to be necessary, they cannot live without it whereas the PC, PC games and the Internet are regarded as being very time consuming. The mobile phone is a benefit for both organising and for contacts. The use of SMS is especially seen among the

<sup>9</sup> Other timesaving devices are mentioned e.g. many people use answering machines and caller-ID to save them answering the phone.

young people and it is found to be both quick and cheap. To be reachable is one of the main reasons for having the mobile phone, because one does not waste time on vain calls on fixed lines or miss a new appointment.

In the *"only Internet" groups* we find the strongest refusal of mobile phones that are regarded as intrusive devices (by groups in all the countries) which waste people's time. The Internet, on the other hand, is regarded as a positive time saving service with the possibility of fast information and communication by e-mail. Furthermore, the e-mails are not disturbing the time of the receiver, who can read the mail when the time is suitable.

The *"both" groups* consider the new ICTs as helpful with regard to decreasing time pressure and using all the possibilities of communication. But they are also aware of the tendency to be captured by the devices, to be always 'online' with no time for themselves. The ICTs may not ease the multiplication of activities, which have split up the day, but they do make it possible to do things that have not been possible before. Thus time use has changed and they express these changes in a positive way. Generally ICTs are not seen as the central devices enabling better management of time. In these groups, SMS is generally seen as being too slow to be used whereas e-mail is used a good deal. They find that they can compare commodities on the Internet which otherwise would have demanded a good deal of time going from shop to shop (Dk, It.)

### **Work, home, leisure and ICTs**

The Internet and mobile phone provide the possibility of teleworking, described above, where it is possible to mingle the time used for work and the time used for domestic activities. Furthermore, the time taken for transportation to the workplace is diminished.

The mobile phone becomes very significant for families with children, especially mothers (France and Spain), as a useful device for organising and co-ordinating family activities but also to manage unexpected events and emergencies in a rapid way. The mobile phone is seen as a device that might increase time pressure but also help to be able to reach close family, which is important. Here we see the connection between time use and social networks. We find very different attitudes to the use of Internet as a leisure time activity. Many find it a bad way of wasting time, especially for children - whereas some participants in the user groups in Spain see the Internet as an important recreational factor for children.

The uses of ICTs in one's own leisure time might be addictive though it might also be a chance to enjoy leisure time. Generally the user groups find this quite acceptable, especially in households without children.

### **Some main points about time use and ICTs**

It is striking that sometimes the attitudes within a single focus group are more different than attitudes between groups. In some cases the life stage is more important than whether they have mobile phone and Internet or not. The young people seem all to want to have mobile phones and access to the Internet but they might not be able to afford it.

Time pressure is not regarded as a catalyst for acquiring mobile phone or Internet for the non-users. Instead, the catalyst would be seeing some practical use as an answer to a need - or else simply enjoying the fun of using new ICTs.

### **The timing of activities**

We find several examples of changes in the timing of activities.

- The use of mobile phones and the Internet has changed the way people plan e.g. the respondents say that people calling from their mobile phone in the supermarket annoy them. For example, before the dispersion of mobile phones these people would have written a list before they left the home in the morning. Now they just call and ask what is missing.
- In some homes the families gather around the PC to look up the possibilities of holiday travel and might order this on-line. They do not go to a travel bureau or order a catalogue at first.
- The telephone is not just answered when it rings, but instead the answering machine is used a good deal (Fr, Cz) to screen the incoming calls in order for the received to maintain control over their time and activities.

### **Mobility in society**

#### **Background**

The concern of this part of the study was mobility, not so much in terms of longer term geographical mobility involving migration or moving to new houses, but more in terms on 'everyday' movements (but not necessarily each day of the year). This could include various forms of regular or occasional travel such as:

- Commuting and mobile work,
- Moving children about (e.g. to school, events),
- Travelling to shop, to visit friends and relatives, to places of entertainment, to a non-work (voluntary) commitment (e.g. clubs)
- Travelling for days out, weekends away or for holidays.

But it could also cover being somewhere else rather than the home (or workplace), i.e. being mobile in the sense of not home or usual place as when people are out with friends or away on holidays or for work purposes.

While the focus group data cannot provide measurements of the exact details of people's mobility, they can tell us about experiences and perceptions.

Hence we can address questions such as:

- How significant a part of life various types of mobility are, as shown through how conscious people are of them when talking about the subject.
- People's perception of changes in mobility over time and how they account for and evaluate this
- The different degrees of choice, which people feel they have as regards mobility i.e. how much they feel obliged to be mobile.
- The degree of spontaneity people have in being mobile versus the degree to which they feel it has to be planned (and how this has changed over time)

- How people manage their mobility, and the time and effort that this involves
- The degrees of pleasure have through being able to travel or be away from home or on the other hand the stress or problems that it might involve.
- Whether some forms of mobility actually count as personal time, time for oneself
- Whether and how people use the time when they are mobile for other purposes

The purpose of this of asking such questions is twofold. First, there is a range of claims about how mobility in society is changing; some based on more quantitative data. These include:

- Changes in transport options
- The degree to which we are geographically mobile in the sense of moving home with the resultant dispersal of social networks
- The degree to which we commute
- The consequences for mobility of the locations of various facilities of shopping centres and places of entertainment

Indeed, in the results below it is clear that the focus group participants were aware of and could cite many of these factors themselves. But in doing so, when we observe what they choose to say, and what they do not, how they say it, what they emphasise or play down, how they evaluate these changes or the observations they make about the consequences then we are adding a subjective dimension which missing from many of the (for example transport) discussions of mobility. Since all of these changes and the related patterns of mobility are one important context, one part of everyday life, in which ICTs used then we need to appreciate that subjective dimension. For example, people may travel a good deal for a particular reason related to some of the considerations cited above. But if they do not perceive this to be a ‘problem’, then various ICTs may not be classified in their eyes as being a ‘solution to a problem’.

The second reason for addressing these questions, for exploring the subjective dimension of mobility, is that people already use ICTs, the mobile phone and Internet considered here, in relation to their spatial movements. Maybe in small ways, ICTs can have consequences for mobility strategies, they can have a bearing on the whole experience of travelling or being away and for how people manage their mobility.

So on the one hand it is necessary to ask questions about people’s mobility in general in order to envisage the potential implications for ICTs (addressed in the first half of this chapter). But on the other hand it is important to explore how ICTs are already implicated in people’s mobility practices, or indeed how people perceive that they could be (addressed in the second half of the chapter)

## Changing mobility in everyday life

### Perceptions of change

Most of the focus group participants across the countries agreed that mobility had increased in general in society<sup>10</sup> and many recognised that they had experienced this themselves compared to their parents' lives<sup>11</sup>.

*(M28) "My mother never used to go out so much as I do" (DkN)*

Some, though not all, even felt that they had experienced some change themselves over time. For example, one Italian cited as evidence of this:

*(M31) "Yes, nowadays people move more than years ago. I bought a car in 1970 which ran for 20.000 kilometres, the same distance my car usually runs in one year (nowadays)" (ItB)*

### Explaining changes in mobility

In the groups, a variety of general factors came first to mind that accounted for this development (many of which reflect wider discussions of social change).

These were:

- Transportation options have improved over the years - with the greater availability of the car especially but also (in many countries) better and faster communal transport for medium to longer distance travel (e.g. railways, flights). Some groups also mentioned that travel had become more affordable through lower prices<sup>12</sup>.

However, there were some paradoxes:

*(F42) "Now it's simpler to go to places which were far from you and, at the same time, it's more difficult to go to places which were near to us. 20 years ago it was arduous travelling to countries which are on the other side of the world; now the traffic causes many more problems going to another point in our own town." (ItB)*

- The improved economic circumstances of many people (at least in some countries) had made travel more affordable.
- Some felt that there had been a change in psychological mentality regarding distance that had accompanied these new possibilities - what before had been 'far away' was now more reachable. In other words, geographical horizons had altered.

So, for example, some could relate these themes to their own experiences and observations of people around them:

*"In the past, we used to be dependent on a train that ran once a day, but now we just hop on a plane." (Dutch report)*

<sup>10</sup> While identifying overall trends, in various focus groups there were some that, for a variety of reasons, still travelled relatively little in their everyday lives.

<sup>11</sup> The Spanish groups tended not to stress this because they thought in terms of a shorter time scale of a decade

<sup>12</sup> In the longer term transport may have become cheaper, but this is more true for some countries than others. For example, where prices were previously low by virtue of being subsidised in Eastern Europe, some transport costs may have risen since the political and economic changes in that part of the world. Certainly the Czech focus group tended not to refer to cheaper transport as a factor leading to greater mobility.

*(M36) "Every means of transport has become better and simpler to use. My grandfather came to Turin from Canelli (a little town near Asti, about forty kilometres far from Turin) 4 times during his life" (ItB)*  
*(F26) "The change in mobility is linked with a change in "mentality" but also with the fact that we have more money: my parents never moved before; now they're always away" (ItB)<sup>13</sup>*

Turning to the focus group discussions of factors relating to different types of mobility:

- One of the reasons for more day-to-day voluntary mobility (including leisure travel) which was voiced across many groups was quite simply that:
  - a) there are more options and choices (especially relating to leisure)<sup>14</sup>
  - b) there are more things we can afford to do
  - c) people have more free time to do these thingsIn many cases, participating in these activities requires more travelling
- More specifically, in some countries (e.g. France, Denmark) focus groups noted that people, including themselves, now spend more leisure time away from the home at weekends - (at second homes, having weekend breaks or simply going out for the day)
- There was some recognition that increased mobility also related to the geographical dispersal of friends and relatives, itself reflecting greater geographical mobility (i.e. moving to live in other places)<sup>15</sup>
- The processes of suburbanisation and living out of town has necessitated more travel
- The changing spatial location of shopping and leisure facilities has led to more travel
- People made new friends over a wider geographical area and so more travel was required to see them<sup>16</sup>
- People have more holidays abroad, often going to more distant locations
- ICTs themselves, including the mobile phone and the Internet could have a variety of different potential influences on mobility (These will be discussed below as a separate topic.)
- People commute more and over longer distances.

It was also observed that both youth in particular and also children are more mobile nowadays than in the past, suggesting that newer generations were having a slightly different experience of mobility.

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<sup>13</sup> This last example reminds us that despite some observations in the groups that younger people travel more now, new mobility options can stretch across all age groups.

<sup>14</sup> However, one factor here is the size of the location - as the Czech report notes, the larger cities have more options and hence more incentives to travel.

<sup>15</sup> Although once again we would expect some variation in the degree to which occurs between countries - which cannot itself be measured through this type of methodology. This is obviously true for the various factors cited in the focus groups.

<sup>16</sup> Discussed in the Dutch report

## Evaluations of changes in mobility

### General evaluations

Although a small minority, there were some who evaluated these increases in mobility **negatively**, referring to:

- Sociability. Mobility can contribute to 'volatile contact', in part reflecting the fact that people are busier and it can mean that they have less time for other people (NIN, ItN).
- The organisation of daily life. Visiting people now has to be pre-arranged because many people are more busy
- Travel stress. Greater mobility has meant more '*traffic stress*' (e.g. ItN)

On the other hand, participants more often viewed greater mobility **positively**, relating to:

- Choice. Mobility means a richer choice and broader scope of what can be achieved.
- Independence. The other term associated with the positive evaluations of such mobility is increased *independence* - and this, especially through the car, was picked out as being of particular significance for women (e.g. FrN)
- Sociability. More mobility means that we are all more able to see other people more.

Since the effects of mobility on sociability appear in both the negative and positive lists, this relation is obviously complex.

In between there were also generally **mixed or neutral evaluations**:

- Mobility has increased, and may be associated with a hectic life, but it is not a problem so much as an aspect of contemporary society to which you have to adapt.
- More travel to sites that are often located at some distance from the home is simply seen as being inevitable.

For some then increased mobility is simply a fact of life.

### Evaluations of different types of mobility

When we differentiate the different types of mobility:

- In many focus groups, with some national variation (see below), discussions of mobility often referred to voluntary, free time leisure-related mobility and this tended to be perceived as being a very positive development, reflecting an improvement in the quality of life
- More specifically, the chance to travel (especially abroad) was noted by some as encouraging more open-mindedness towards other people and increasing curiosity about things happening around us.
- The mobility caused by the geographical dispersal of friends and family or visiting dispersed shopping and leisure facilities seemed to be more of a taken-for-granted fact of life, rather than being seen as positive or negative
- However, for some people, some seemingly 'voluntary' travel actually started to be seen as being 'forced' rather than 'a free choice'. Some trips reflected the need to meet social obligations (to see relatives) or

commitments (to participate in something regularly, even if tired) or practicalities (e.g. having to go to where the shops are located).

*(F30) "My parents and my husband's parents live far from us; so we're obliged to travel. Since I've got married I travel more (to see them)"  
(ItN)*

- One of the dimensions which participants did not discuss much was travel to non-work voluntary commitments. A consideration here is that a subset of this category is organised leisure activities, and these appeared to be less common in some countries (e.g. Czechia, Italy) than in others (e.g. Denmark). But this whole category of mobility was not considered much by participants in any of the focus groups
- There were some occasional comments about the need to travel because of children. For example, one of the areas not discussed much by participants was travel to non-work:

*(M49) "My son has attended almost every possible leisure time activity. It has been very demanding. We have to drive him all the time." (DkB)*  
*(F42) "With a child, my work, my days that are full, I prefer staying at home. I already have to take my child to his football every week-end."  
(FrB)*

However, this was never a major discussion point in the groups concerning how mobility had changed in society (and despite some arguments that there has been a change in adult travel patterns precisely because children's mobility has changed - Büchner, 1990)

### Variation in responses according to access to ICTs

Overall in relation to these general questions on mobility there were very limited variations between the focus groups without the mobile phone and the Internet, those with both and those with one or the other.<sup>17</sup> Bearing in mind that small numbers are involved:

Personal mobility	Among those with neither technology there were more who were either not very mobile in their lives or else their mobility had not changed much. That at least raises the question of whether there is some link between mobility and an interest in acquiring these ICTs.
Negative evaluations	The few negative comments about changes in mobility, and there were only a few, also tended to come from these groups without access to either technology (e.g. CzN, ItN, NIN).

### The case of commuting

#### Varied evaluations

The issue of commuting deserves particular attention because the comments were varied. By way of context, in the field of transport planning changes in commuting patterns receive much attention, but some have pointed out that in terms of time, distance and frequency of trips it is less important than other

<sup>17</sup> Assuming that we look for patterns applicable in all the countries.

forms of travel (Vilhelmson, 1999). Comparing this to the response from the focus groups, it was interesting that although commuting was (sometimes) mentioned, it was not necessarily so striking a 'problem' as the planning literature might suggest.

There are a number of considerations here. First, a proportion of the focus groups were not themselves 'economically active' - i.e. not working because they had retired, were unemployed, were students or were housewives. They did not commute themselves, which may explain why this was not so striking a feature of everyday life. Others lived near their workplace, sometimes related to the fact that they worked part-time, which tends to be more locally based. So they did not travel far to work. Yet others did travel further, but sometime commuting may not have been a factor that came to mind because they clearly did not mind travelling, especially if they lived in areas where it was relatively easy to commute. So when some groups never mentioned commuting when discussing overall patterns of mobility in society, this may well reflect their own experience of the phenomenon.

After all these caveats, others were observant of how some areas were relatively deserted during the day because people had commuted to work elsewhere and some saw this pattern in the traffic flows of public transport, for example. And some did comment that people (sometimes including themselves) were now commuting over longer distances<sup>18</sup>.

*(F38) "Every day I have to cross Turin and it takes an hour in the morning to go towards my working place and an hour to go home in the evening" (ItB)*

Turning to look in a little more depth at the question of how people evaluate commuting, in contrast to what might be expected from some of the planning literature discussions of commuting, a number of participants actually pointed out that in some ways commuting can be pleasant (e.g. NIN). Travelling on public transport can provide useful and useable time - for reading books, newspapers, planning daily activities or just listening to a walkman (e.g. CzN)<sup>19</sup>. Public transport journeys can also mean a chance to meet others (although some participants doubted just how much this really occurred) (CzB) while car journeys provide a chance to talk to passengers (CzB)

So, for example:

*(F29) "When I'm on a train I like chatting with other people who are travelling; I think the train favours face-to-face communications." (ItB)*

*(F48) "The Vysehrad area is like a village. I spend about 40 minutes talking to passers-by on the way home from the tram" (CzB)*

*(M28) The car is like an "island of music and culture"*

Commuting could also be useful for allowing a mental transition between home and work:

*"I have time to relax and forget about my work in the traffic jam on my way home." (Dutch report)*

<sup>18</sup> There is some European variation, discussed at the end of the chapter

<sup>19</sup> As noted in the chapter on time use Dutch research shows traffic jams were actually seen as providing a chance to rest after a busy day (ref?)

Other participants felt that as more people were becoming forced to commute they were simply getting used to it (CzB) and some participants themselves regarded the related time spent in traffic jams as a taken-for-granted necessity of life (NIB). Meanwhile, yet others did not feel so stressed by commuting, because they had flexible work that allowed them to travel outside the rush hour (e.g. ItB).

On the other hand, commuting was, or in the past clearly had been, a negative experience for certain participants. Indeed, for some commuting had been sufficiently an issue that they had chosen to live closer to their work (COI). One Dutch participant travelled so much for work that he would not go near the car at weekends (NIN). A Czech participant made a similar comment:

*(M28) "I used to go fishing, but now (that I commute in the weekdays) I prefer watching television, good food and having a rest." (CzB)*

Others also mentioned this point, that because people have to commute, or commute further, this can make them feel tired and stressed (ItN) and lower interest in travelling in general (CzB). Hence, commuting and other work-related travel could actually have a consequence that they actually led to a reduction in free time mobility as people spent their leisure at home (CzoM). In addition, because they travelled so much, some people felt that they could not commit themselves to regular free-time activities on specific days.

*(M48) "It doesn't fit in with my lifestyle to attend activities on fixed days, when I travel so much as I do. I am usually at home during the summer, when few activities are going on." (DkB)*

In fact, it was partly because of this that telework as a means of reducing commuting was discussed (and experienced) in some of the groups - more so the ones with the Internet who were more conscious of how being on-line could facilitate this option.

### **National variation**

It was notable that several of the Czech focus groups, and only the Czech groups, first thought of commuting when discussing 'mobility', whereas in the other countries the main emphasis was always on people's free time mobility - which was generally seen in a more positive light. From the discussions, this may well reflect the fact that for many Czechs the need to commute, or commute further (e.g. between towns), is a relatively new experience and hence more striking for them.

In fact, one of the Czech groups (CzN) provided the strongest negative evaluation of these developments. They saw the increase in mobility as reflecting a lifestyle which they did not want, a newly established lifestyle of people rushing around after money and in so doing neglecting their families and limiting the time they have for themselves. The fact that they feel so negatively about changing lifestyles may also reflect the fact that there has been a radical change in society within a relatively short period of time when compared to many of the other countries.

The other reason for a negative evaluation related to the need to travel further to work (CzoM). There has been a sudden increase in mobility with the move to a free market economy and the geographically uneven distribution of jobs,

or at least well paid jobs - so people had been forced to travel more, for example to Prague<sup>20</sup>, to find work:

*(F26) "I go to school by train and I see a lot of people commuting to Prague or another city where job opportunities are available." (CzoM)*

The Czech report notes that groups with a negative perception see mobility as being forced on them by societal change<sup>21</sup>. But it also notes the variation within Czech responses - other groups take into account various reasons for mobility and see it as a matter of choice in light of new possibilities, like many participants in the Western European groups. In fact, we also find observations about the growth of opportunities: in terms of careers, culture, hobbies and personal interests.

### **The case of international travel**

Some particular considerations applied to travel abroad:

- For some countries, travel to foreign countries has become easier because of political changes, including the ease of crossing borders. It was especially in some of the Czech focus groups where we find observations about the importance of political change and more open borders, reflecting changes across Eastern Europe
- Others commented that people often spent more time abroad both for studying, and for business purposes, perhaps especially younger people. In the past this might have seemed exceptional, but now people were less surprised by the idea - at least in some countries (Dutch report).
- There was generally more interest in travelling abroad to see other countries<sup>22</sup>.

So, for example:

*(M37) "I'm more interested in other countries' cultures and information: that's why I travel more." (ItB)*

Now while participants in all countries mentioned international travel, certain elements of the experience of and motivation to travel may have been more country specific. For example, it was within one of the Italian groups that it was observed that foreign travel had increased partly because of the greater curiosity stimulated by TV and more recently by the Internet and the fact that now there was more information available about foreign countries

*(M37) "I'm more interested in other countries' cultures and information: that's why I travel more." (ItB)*

But while such processes may have been occurring in the various countries we might ask whether they have been more developed in some than others?

Also from that group:

*(M22) "School attendance has grown and if you know English you can visit foreign countries with no problems." (ItB)*

<sup>20</sup> The Czech report noted that this view was most associated with those in a smaller town where work opportunities were scarcer

<sup>21</sup> It also draws attention to the fact that some of this focus on commuting occurred in a small town where other motivations for travel were fewer because there were fewer options compared to the city.

<sup>22</sup> See the discussion of European variation in this respect.

Apart from the particular case of English cited here, in some countries learning a foreign language has been embraced by more of the population than in others, which facilitates travel. This specific quotation also raises the point that whereas in some countries English has been long established as a second language, in others the (more recent) increasing familiarity with English can be a factor making travel to a wider range of locations easier.

### **Other National Variation**

#### **Weekends away from home**

While going away for weekends occurs in all the countries, this pattern is in all likelihood structured differently in different countries. In this respect, it is noteworthy that on several occasions Danish participants mentioned second homes, which may be more prevalent in Denmark. Generally, going away for the weekend was mentioned more in Italy and France.

#### **Opening hours and the timing of travel**

It was only within (two) Dutch groups that participants mentioned that since the opening hours of shops have changed, this has changed the timing of journeys to shops. But while this move to a 24-hour society is a process occurring across Europe, it is doing so unevenly, with legal and institutional arrangements changing more quickly in some places than in others. Hence, the extent to which this factor is noteworthy for participants, or reflects a more recent change in their own routines, can vary.

#### **Traffic issues**

The perception and importance of 'traffic problems' seems to depend on a number of factors. One is whether participants come from large urban areas or the provinces - the car being more important in the provinces where there are less traffic problems. In addition, urban areas in some countries (e.g. Turin, Madrid, and Paris) may well have larger traffic congestion problems than in others. Finally, how new the problem of traffic congestion is - as in Czechia - may well have a bearing on people's awareness of this 'problem'.

#### **Mobility and life stage**

In a number of countries it was pointed out from both personal experience and observation that contrary to any general trends, personal mobility can sometimes decrease at certain points in the life course - e.g. for parents. This was especially true for women with young children (a point noted in some of the existing literature on gender and mobility: Tivers, 1988; Pickup, 1988). Sometimes the home-centred life is even preferred when children are still around:

*(F42) "With a child and my work, my days are full, I prefer staying at home. I already have to take my child to his football every weekend"*  
*(FrB)*

In fact, as children grow older and no longer pose a constraint on their parents, the free time mobility of parents can often increase.

*(F49) "My children can move about by themselves now. Before, I had to take them to their activities. Now my mobility is more personal and I try to find again my own pace." (FrB)*

Meanwhile, those without children at home can travel more.

*(F23) "We all move about, we are young, we do not have much money but it's an escape. I have some friends who like music and do not mind taking a trip of an hour or two for a concert " (FrB)*

However, the picture is more complex because sometimes having young children leads to more mobility for certain purposes - e.g. more travelling to take children to a crèche. Older children's leisure activities can also increase the parents' (forced) mobility as the parents have to take the children to (and maybe stay with them during) those activities.

One slightly different emphasis raised in the Danish and Czech reports was that in the case of families with children travelling was made more complex because the different household members often had to co-ordinate their mobility and plan their travel more because of their various commitments. In contrast single persons could make decisions without having to be concerned so much about other people and so their decisions to travel can be more spontaneous and independent. To a degree this was also true of those whose children had left home (empty nesters) since they no longer had to be constrained by those children

As regards the elderly, it was clear that some of the elderly, or at least the young elderly, had the freedom to find new reasons for travelling. One can see this in, for example the case of Czech retired female participants using their new disposable time to travel independently during the week e.g. to department stores, supermarkets as well as to other Czech towns. (CzN).

Finally, comments from the groups also illustrate how different forms of pleasurable leisure mobility can also occur at different times in the life stage. For example, younger participants observed that they may spend weekends (and maybe weekday evenings) visiting friends or visiting family, or going to events such as concerts with friends. Meanwhile older, more established, participants had sometimes moved to a pattern of travelling to second homes. Some, but by no means all, older people had become relatively more home-centred in terms of their leisure choices.

### **The spontaneity of mobility**

Apart from the issue of changes in the amount of different types of mobility, there were some comments about the nature of that mobility - in particular, how much it had to be planned in advance.

*(M47) "There is no need to organise yourself 3 weeks beforehand" (FrB)*

On the one hand, transport technology and especially the car, had improved so much that less preparation was necessary

*"There aren't any confines anymore. I remember that during the 50s my father conducted a complete check of his car before leaving if he had to drive 150 Kilometres to get to the sea. Nowadays we cover the same number kilometres in a day and we think it's normal and the car needs no special checking" (ItoM)*

Yet for some people their (increasing) mobility, time commitments and problems of synchronising time to meet up with others still created a constraint on when journeys for socialising purposes took place:

(M44) *“When we were younger, we visited each other spontaneously. We don’t do that any more. Now we call in beforehand and make appointments.”* (DkoM)

In fact, we can contrast the possibility of (positively valued) greater spontaneity of travel (e.g. ‘get in the car and go’) with the above negative evaluations of the decline of spontaneity because so much of life now has to be planned. So, spontaneity is more possible if it is for a purpose or in circumstances where it does not require co-ordination with others.

### **Barriers to mobility**

Despite the general view that many forms of mobility have increased, some noted that it has also become more difficult to travel with cars (EsoI). There was even some criticism of the demands of longer distance travel (CoI). As noted earlier, some felt that time pressures has even reduced the amount of travel for some purposes such as visiting friends:

(F26) *“Sometimes good friends get in touch with me, but I don’t even have a single minute to see them or I don’t have the energy to enjoy their company.”* (CzoM)

Others chose not to be so mobile because of the fact that they lived in pleasant surroundings (in the provinces, near the sea, in the country, in a good climate, with nice gardens) and so they preferred to spend free time at home rather than travelling (FrN)

### **Mobility and the mobile phone**

First, we start with two particular observations. The first, a theme was raised in some of the French groups, but which could be a wider experience, concerns the relationship between other people’s mobility and their mobile phones, not just the participants’. For example, when some non-mobile phone users argued that there was more mobility generally in society, they actually cited as evidence the very fact that they find themselves phoning more and more mobile telephone numbers (FrN). Meanwhile, in another group, this time of mobile users, the participants referred to the increase in the mobile phone to mobile phone telephone calls, reflecting the fact that not only they but their friends were more mobile now and best reachable by this technology. For them, the mobile phone was a wonderful device to manage mobility as they called more to their friend’s mobile phones now and also as their friends made more calls to their mobile phones (FroM).

Second, some participants compared the flexibility offered by the mobile phone to that offered by another technology: the car. While all improvements in transport provide more independence, the car does so in particular, and indeed, it provides a metaphor for *independence* and *flexibility*. One group explicitly compared the mobile phone to the car in this respect, because it frees people from dependence on fixed telephone lines or public phones when they are travelling (CzoM).

### **The influence of mobile phones on mobility**

There were some very mixed answers concerning the issue of whether and how mobile phones might have themselves had some influence on people's mobility. Some participants, including both owners and non-owners, argued that mobile phones may make life more convenient and comfortable when travelling or away from home. But they doubted whether it had much effect overall, or compared to other more important factors, on the total degree to which people travelled. Others thought it did increase mobility, and it was usually mobile owners who could give examples of how this worked from their own experience.

For example, it was pointed out how being reachable on the mobile phone when away from home (or being reachable more quickly by the voice mail facility on mobile phones) meant that people did not have to stay at home to wait for messages. Hence it was possible to manage their life more easily when outdoors (e.g. manage appointments or emergencies and stay in contact with the home and children). In other words, the mobile phone helped to overcome constraints that had previously, at least at certain times, encouraged people to be less mobile by tying them to the home (FroM). It enabled them to be mobile in the sense of being somewhere else other than the home.

In a similar vein, came the example:

*"Mobile phones give you freedom. I can now lay down in "the Vondelpark" with a glass of wine." (NloM)*

*"I'm much more mobile now than I used to be. I used to stay at home when I expected a call. Now I leave home when I want to. My friends can leave a message or call me at my mobile number if I'm at the campground". (Dutch report)*

There were also some examples specifically relating to work: these paralleled the arguments about not being tied to the home by showing how the mobile phone meant that people were less tied to the workplace:

*(F39) "Now I can enjoy my free time with my daughter in the park, because I am permanently connected with the office so that, if there is an urgent need, I can be located. Before I had to be (at the office for) the whole working day, now I do not need to be." (EsoM).*

*(M28) "When I was working as a receptionist, I had a mobile and I could go out for a walk and work at the same time" (FroI).*

Meanwhile portable ICTs, including the phone, allowed people not just to be available but to work in locations other than the office.

*(M32) "GSM and the portable PC allow you to work wherever you are: they give you the maximum freedom of movements" (ItB)*

On the other hand, there were also some observations concerning the way in which mobile phones might contribute to a decrease in mobility for certain purposes and at certain times. For example, relating to work again

*(M32, M31 agrees) "I think nowadays people have few working journeys because E-mail and the mobile phone are quite useful for organising working time better" (ItB)*

The last point concerns using the mobile phone (like telephony more generally) as a substitute for travelling, specifically to see family and friends. But there

are distinctions to be made. While some of the participants in the French groups (FrM, FrB) pointed out that they now made less journeys for such socialising because of the mobile phone, others argued that it was actually other factors, such as time pressures, which really made such journeys problematic. And it was when they could not travel for these reasons that the mobile was used and useful for making contact (CzoM, EsoM). Hence the mobile phone did not itself necessarily directly cause this reduction in mobility, but compensated for it.

For example:

*(F59) "Nowadays it is so busy in the Netherlands; therefore I do not go places so much as in the earlier days; I more often take the phone in order to have contact with friends." (NIB)*

### **The influence of mobility of mobile phones**

One observation in the Italian research was that people without both the mobile phone and Internet access were also inclined not to travel so much on a daily basis whereas those with both technologies were also more likely to be more mobile both during the weekdays and weekends. Others (ItoM) had argued that people who are mobile have more need of a mobile phone to cope with the demands upon them. So this raises the question of whether people's degree of mobility has a bearing on their decision to acquire mobile phones.

One group of non-users more critically made the two-way connection between mobility and ICTs (including the mobile phone), arguing that mobility has increased because today there are many more communication devices and hence it is easier to communicate when you are moving. On the other hand, that increased mobility itself creates the need to have new and more powerful communication devices (ItN)

### **The emergency role of the mobile phone when people are mobile**

Many groups, and even many of the non-user groups, appreciated the emergency role of the mobile phone when they are either away from home, based elsewhere (e.g. at a second home), or travelling. The most frequently cited example concerned the emergency of the car breaking down, but others included being able to report accidents (CzN) or call for help in the event of street crime (CzoM). In this sense, the mobile phone was valued not only for its role in the event of something happening, but because having it available could provide a general sense of security and assurance. Many groups, users and non-users, also emphasised that this emergency or safety role could be especially important for women (CzN, FrN, EsB, FrB). In addition, some users initially bought the mobile phone mainly so that they were available if other people experienced an emergency (as opposed to them experiencing an emergency themselves) (ItoM)

Obviously this emergency role remains a potentially important reason for acquiring or justifying the acquisition of the mobile phone. Indeed one woman non-user said that she now planned to buy a mobile phone precisely because she had recently broken down in an area where there had been no emergency phone (NIN).

It is worth adding that some mobile users had through experience developed a broader sense of what counted as an emergency:

*“My wife sometimes calls me in an emergency... Then, she'll tell me that she's waiting for me at the door of a shop with a lot of shopping bags and that she needs my help”. (Dutch report)*

Another related theme was when participants, including non-users, bought mobile phones for their children so that when they latter where out of the home the parents had greater peace of mind<sup>23</sup> (e.g. ItN).

In one group of users (ItB) this same role of the phone in creating peace of mind was discussed from the adult child's perspective.

*(F21, F28 agrees) “The mobile phone is useful to reassure my parents when I'm out in the evening. So I can stay out as long as I want”*

### **Being reachable by mobile phone when being mobile**

Being reachable by mobile phone raised some slightly different responses. Some, usually mobile phone owners<sup>24</sup>, pointed to the importance of being ultimately reachable. Sometimes they specifically noted that it was most useful in this respect for people with families and/or those who travelled a good deal, and in one case it was noted as being particularly useful in this respect for those who travelled abroad (DkM).

On the other hand, non-users especially sometimes saw this is a negative light, talking of the threat of being reachable and hence potentially controllable by others - implying a loss of privacy and independence (CzN).

Hence some commented:

*(F42) “I have no mobile phone or answering machine, because I would hate to be reachable all the time and I do not want to be pressed to answer at once or call back” (DkN)*

*(F25) “I also need a space where nobody can reach me.”(DkN)*

In fact, one of the discussions distinguished reachability from availability (FrN). On the one hand mobile phones meant that others can get a message to the mobile owner (making him or her reachable). But it was equally clear, partly from observation, that mobile owners were also sometimes trying to manage their availability (for chatting, for example). For instance, they might say that they could not speak now but would phone back later.

### **Co-ordinating mobility through the mobile phone**

It was rarer for non-users to think about using the role mobile phone for logistical purposes, co-ordinating travel.<sup>25</sup> Of course, this might reflect the lifestyles of these particular groups: the might travel each time for only one specific purpose or else plan trips in advance. But equally it may well be that this is a usage that emerges mainly through experience once people have the technology and is not something that non-users tend to think about in advance.

<sup>23</sup> On the other hand, a few also mentioned wanting to acquire a mobile phone for children in order better to control them (e.g. EsN1st)

<sup>24</sup> But this was also noted by individuals in NIN and CzN.

<sup>25</sup> Exceptions being in CzN and DkN: (F31) “ Sometimes it would be nice to have a mobile phone if I am delayed and pick up my children later” (DkN)

This could mean making arrangements about meeting up with other family members:

*"We have two mobiles. If half of us are at the cottage, we can reach the others and find out whether or not they will join us."* (CzB)

And

*(M49) "My son has attended almost every possible leisure time activity....I bought my first mobile phone so that my son could call and tell me when he needed to be fetched."* (DkB)

Or it could be used for arranging to meet friends:

*(F35) "After the cinema I often call my friends to organise the dinner 'on-line'."* (ItB)

And the mobile was especially useful if unexpected free time emerged:

*(F54) "(It's) useful if you have suddenly had some spare time during the day. Then you can easier contact some one and make arrangements."* (DkB)

Of course one implication of this is that sometimes the mobile phone has led people to make journeys which they would otherwise not have made - and hence, perhaps only in small ways, added to their mobility. For example:

*"Somebody can give you a tip on where to go and meet others."* (CzB)

Because of the more flexible planning made possible by the mobile phone, time could also be used more efficiently. For example, people had found that it could help them to avoid the situation where they are meeting someone or going to a meeting only to arrive and find that the meeting has been cancelled. Now they can check before travelling and can avoid wasting time (ItB).

Hence:

*(M32) "The mobile phone means that now every meeting is confirmed at the last minute. With the mobile phone you can completely cover the day of commitments, appointments, events, ... without wasting any time. This is positive: you have much more freedom"* (ItB)

The other thing mobiles were good for in terms of meeting, which was mentioned in several groups, was to let someone know if they were being delayed for some reason -

*(M37) "People are glad when you make a call telling them you'll be late."* (CzB)

This was also a good reason for giving children a mobile phone

*(M47) "We gave our daughter a mobile phone when she was 14-15 years old, so she could call if she was delayed."* (DkB)

However, on the downside it was also noted that it can be difficult to organise 'on-line' (mobile to mobile) if everyone is doing this at the last minute (ItN).

Secondly, the very ability to report delays can have negative outcomes

*(M32) "The mobile makes people lazy. It can help in unanticipated situations, but it have not to become a justification for coming always in late."* (ItB)

Lastly, the mobile phone could serve a practical organisation function when travelling or out of the home.

*(M68) "When I am on holiday I take it to ring all hotels or restaurants in the neighbourhood to make reservations"* (NlB)

*“When I get home late from work and don't feel like cooking, I sometimes call ahead to a delivery service from the car”. (Dutch report)*  
*“You sometimes see people in the queue at the supermarket calling home to make sure they've bought the right potatoes!” (Dutch report)*

### **Mobile phones and the use of travelling time**

As noted in the discussion of time use, some participants found that the mobile phone was especially usefully for more fully exploiting travel time - by being able to use that time to communicate with others as well as to travel.

*(M44) “When I want to visit my parents or my friends I use my car, and the travelling time can be used to call people.” (ItB)*

*(M44) “Calling with the mobile phone when you're in your car is a good way of making those calls you can't make at other moments.” (ItB)*

In fact, a few specifically mentioned that use in traffic jam.

*(M 28) “In the traffic jam I have time to think. Hence this is the time to make appointments and difficult phone calls.” (NIB)*

Nor was it just a case of using travel time intensely. For some travel time was not only 'dead' time but also boring time. So focus group members occasionally talked about sending SMS messages and playing the games that are on certain mobile phones as an enjoyable and unobtrusive ways of filling spare time on public transport - indeed, this was also mentioned by participants in their 40s (CzoM).

### **Mobility and the Internet**

#### **Reducing or increasing mobility**

It was only among some of the groups which actually had Internet access that we found participants starting to say that in some ways they move around less because of the technology. Some of the examples given were clearly based on their experiences of using the Net - e.g. through having tried distance learning and on-line banking. And it is among those with the Internet that we are more likely to encounter the vision of home-based work leading to a reduction in commuting (e.g. CzI, EsB)

But there were also suggestions that in certain respects the Internet could increase mobility. For example, some noted that because e-mail in particular enabled on-going contact with friends abroad (whereas such contact may have been less or have died out if relying on letter writing), this may actually have promoted more some international travel which may otherwise have been less:

*(F21) “The Internet and e-mails help me to stay in touch with my French and German friends during the year. Then I often go to visit them in summer” (ItB)*

#### **Co-ordinating and keeping contact**

There were two ways in which the use of the Internet performed a similar role to that of the mobile phone. The first related to the fact that some of those with the Internet were actually using e-mail to organise their mobility. This

included using e-mail to co-ordinate meetings (ItoI, ItB) and using e-mail to warn others when they will arrive (DkoI)

Second, although mentioned less than the mobile phone in this respect, the Internet was yet another ICT for keeping in contact with social networks - especially sending e-mails home when travelling abroad.

(F44) *“Everybody can get in touch with you – even when you go abroad you are in contact with your network.”* (DkoM)

### **The Internet and organising travel arrangements**

By far the most common comments linking the Internet to mobility related to making travel arrangements. While those with home access to the Internet were more likely to mention using the Internet to organise travel, some of those without it were also aware of this role which they saw as positive (CzN, DkoM). Indeed, even when they did not personally have access to the Internet they had still made use of it for this purpose. This was done both at relative’s homes (EsoM) and in one example, a Dutch women used to look up flight prices on teletext and then arranged for her friend to make a booking over the Internet (NIN)

Amongst those with Internet access, many now used the Net for organising travel since it was easier. A number mentioned that it actually save time and a trip to a travel agency (FrB, FrB, EsB), and in addition such planning did not have to be done so far in advance (FrB). It also enabled more time flexibility in other ways when planning travel:

(M22) *“You can get information from many places but only when the office is open. It is much easier on the Internet. You can find the information when you need it.”* (DkB)

And it was actually possible to get more information from the Internet that might be more reliable than from the agency:

(M47) *“Eight of us sit around the computer when we make reservations for the winter holiday. The bureau might lie, but here you can see an up to date weather forecast”* (DkB)

Finally, the Internet was not just used for international travel but also for domestic trips:

(M26) *“I use the Net to find the timetable for busses and trains when I have to go to a meeting in Copenhagen. Before I always went by car.”* (DkB)

### **Variation in responses according to access to ICTs**

Some comments already mentioned in passing about how responses different between the groups with different access to mobile phones and the Internet. The table below brings these comments together and adds some.

<b>Role</b>	<b>The Mobile Phone</b>
Emergencies	All types of group appreciated the emergency and safety role of the mobile phone

Co-ordination	It was mainly those with mobile phones that we find discussions of its usefulness for co-ordinating mobility
Reachability	It was among those without mobile phones that we find more critical comments about the technology making one too reachable and that this is a potential threat. In contrast, mobile users usually see being more reachable as a more positive development, which either they embrace or they can manage.
<b>The Internet</b>	
Reducing travel	It was the groups with the Internet who were more likely to say that the Internet might reduce the need for some forms of travel (DkI, CzI, EsI, DkB, ItB)
Travel stress	It was the groups with the Internet which talked about travel stress (ItI, CzI, FrI)
Teleworking	It was the groups with the Internet who were the ones more likely to have discussions of teleworking (e.g. CzI, EsB).
Organising travel	All types of group mentioned the Internet and making travel arrangements - so awareness and even experience of this had clearly extended beyond users
E-mails	Only those with Internet access tend to discuss e-mail and mobility. This may reflect the fact that those without access think of the Internet mainly in terms information rather than communication and also they do not have the experience of experimenting to find when e-mail is useful.

### **Social networks**

As noted in the introduction we were interested in investigating the implications of integration in social networks and the adoption and use of ICTs. The thought here is that the greater one's integration in various types of social networks, the greater their need to adopt ICTs.

In addition, it is quite possible that the use of the various technologies changes as one becomes more experienced in their use. For example after the individual has increased their security with a mobile phone and also tapped into the information available on the Internet, a second level activity is to use the technologies to communicate with their social networks. The desire to use the technologies for this purpose may be a motivating factor in the initial acceptance of the technologies, but the material indicates that it develops with use.

Turning now to the discussion of social networks, Wellman describes networks using several categories. These include the density of the interaction, i.e. how many of the network participants interact with each other, the boundedness of the group, the range of the group, how exclusive the group is, forms for social control and the strength of the relationships (Wellman, 1997). Wellman and

Tindall (1993) cite a slightly simpler taxonomy. Here they use the concepts of density, boundedness and supportiveness.<sup>26</sup>

## **The dimensions of social relationships**

### **Density**

Whereas Wellman describes density as the number of network participants who interact, it is used in a slightly different perspective here. Since we have only the individual's perspective of their social network we have no notion of how many of the network participants are in contact with each other. In the lingo of Wellman, we have an egocentric and not a universalistic perspective of the social network. However, the material from the focus groups does give us a sense of other aspects of density. One is able to glean from the material notions of how frequent contacts are within the network, and in some cases how long, how spontaneous and also, a notion of the "band width" that is used in the interaction, i.e. face-to-face interaction allows one more insight than other forms of mediated interaction.

One must note here that the discussion of network density does not really talk about the content of the interaction. Thus, the issue of density covers both the chit-chat and also the co-ordination. In network analysis there is the raw assertion that dense interaction is a sign of community. This type of distinction was seen in the comments of some informants. An informant in the French "Internet only" group picked up on this point when they said,

*"[With] close friends, you see them, you phone, you e-mail them. Acquaintances, it depends on the person" (FroI).*

When considering one's social network, it is most often a network of networks. Most individuals participate in an intimate family network, an extended family network and various types of friendship and collegial networks. It is clear from our data that the family is that sphere in which many of the respondents had the most frequent contacts. The material notes that the informants see their close family such as parents, siblings and children who live away from home on a regular basis. They report a combination of visits and calls with which to maintain the contact. In many cases the family lives near at hand and thus there is no real barrier. Informants noted that there was a taken for granted quality to the interaction. It was reported that the family is perhaps more important to the elderly.

One can see here that the family is an important locus in the social networks of the informants, a point to which we will return below.

### **Range**

Range can describe either the geographical or the social span of one's social group. The concept can describe these distances individually or in

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<sup>26</sup> The work by Wellman et al. is often quite quantitative while the analysis presented here is qualitative. These categories were chosen more as guides to prompt the coding of the material and not in any rigid sense. In this analysis we have used four of these categories, i.e. density, boundary, range and expressiveness.

combination. That is, range can describe one's interaction with a member of the intimate or near sphere that is living in a geographically distant location. Range can also be used to describe one's interaction with those who are not members of the immediate social circle but who are near at hand. Many of the comments regarding the range of the relationship pertained to members of the close sphere who are living far away. In addition there were often comments regarding unknown or only vaguely known correspondents whose location is also unknown, i.e. persons met through "Chat" groups.

Looking first at the interaction with friends and family who are living far away, the issue of ICTs and their usefulness in maintaining the relationships was mentioned in almost all the reports. E-mail in particular has made it easier to maintain these networks. In the words of an informant in the French group with both technologies:

*"Now, I am more in contact with my family because before I felt lazy about writing letters". (FrB)*

A Danish woman in the "both" group also echoed these comments when she said,

*(F30) "I 'mail' a lot with my friends, especially those abroad." (DkB)*

An informant in the Italian group with both technologies said:

*"Internet and e-mails help me to stay in touch with my French and German friends during the year. Then I often go to visit them in summer" (ItB)*

The informants noted that e-mail allowed them to stay in touch and maintain their relationships. The system is relatively cheap and that the Internet also allows one access to information regarding local events, i.e. listening to local news or radio and reading local newspapers. Thus it allows one the ability to maintain a sense of their local identity. Even those informants in the groups with no Internet connection saw this technology as a way to help in the maintenance of the widespread network.

Looking at the loose network, the Internet was also seen as a way of developing friendships among those social groups with which one had less contact. The use of "chat" groups was a common topic in this context. This is a topic to which we will return below when discussing distant relationships.

### **Boundary maintenance**

One of the functions of a social network is boundary maintenance. With the intimate and close social networks one determines both an "inner" and an "outer" boundary to the interaction. That is, in co-operation with the other network members, one discovers how intense the interaction will be. Within the more intimate networks there will also be boundaries that mark, for example the difference between family and friends. The marking of the boundaries is seen in the frequency of interaction, the types of things one can easily bring up in conversation, the degree to which one can expect reciprocity from others, etc.

## **Expressive issues**

The interaction within a network, particularly the more intimate networks, is not simply loose talk, nor is it just practical issues. There is also an expressive aspect to the interaction. One can see this in the comment from one of the “neither” groups in France.

*“In relation to these scattered activities, keeping contact and chatting with their near social network is still as emotionally enhanced especially for women (who are bigger users of the phone.” (FrN)*

The data indicate that it is the family that is often the locus of the most emotional interaction. In addition, near friends offer the possibility, in the words of a Czech informant, to “recharge” oneself. The informant noted that

*“It is refreshing or relieving’ to confide or just chat with a friend when there are a few minutes available. Personal contact is preferred but not necessary, and mobile telephones are a good substitute for seeing people in person. (Cz)*

Another aspect of the relationship is the various types of reciprocity. With families there are often tightly linked interactions that have many dimensions, i.e. practical issues that carry with them a superstructure of emotional interaction. On the other hand, one’s relationship with others is less complex. Interaction with neighbours, as noted in the Dutch material, is often practically oriented. Neighbours look after each other’s pets and keep an eye on the house during holidays, might have a spare key if you forget your own. This type of interaction however is not imbued with the same emotional content as one’s interaction with one’s family.

## **Types of social relationships described in the material**

Now we turn to the description of the various types of social networks. We will examine the role of social networks in the context of the family, friends, those to whom one is near (i.e. a combination of previous two groups), colleagues, and those who are distant.

### **Family**

Comments about the family made up the largest single group of comments in the whole analysis. This is not surprising in that it is the family, both one’s family of procreation and their family of orientation, that provides one with both practical assistance, emotional support, a locus in society, etc.

Looking into the data from this analysis, we find that the reports from the Czech Republic and Denmark contained the most comments regarding the family<sup>27</sup>. The Danish material notes that the closest are the persons with whom one lives, i.e. your children, your husband or wife and so on. They felt that it was important to stay in close contact even when you are at work.

The material from the Czech republic reports that the family is a crucial part of life and something they appreciate very much. These close family members

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<sup>27</sup> While the Danish and the Czechs mentioned family and friends quite often, the French and the Italians mentioned the group of people with whom they were near most often. This is a aggregate category that is similar, but yet different from family and friends. We will examine this group below.

are seen as the most important social network. They are seen as being a stable and irreplaceable shelter. As with the Danes, there was an insistence that one be in daily contact with their family members and partners. The family was important in all the other countries, but the discussion was broader and intense in these two countries.

The issue of how to manage the intimate sphere arose in several connections. The material from the focus groups indicates that there was a need to create boundaries within the context of the family. The boundaries can be based on generational lines, i.e. the need to apportion time to elderly parents and grandparents in the need of care. The familial boundaries can be based on marital dissolution and the issues of childcare and the division of friendship groups. Finally the boundaries can be based on the separate needs of the individuals within the family.

One can also find similar comments in the material from the “both” groups in the Netherlands and in the “mobile phone only” group in France. These comments speak to the importance of the ego vs. the importance of the family and the near group. There is the family and then there is the individual’s intimate circle. The two are not necessarily the same and there is a type of negotiation about the maintenance of the boundary.

### **Friends**

As with the family, it was the Danish and the Czechs that used the largest space to describe social networking within the friendship sphere. Unlike the family, friendships are more voluntary. Thus, they were seen as a resource available to the individual. Friendships were described as being important and a source of refreshment and relief. Reflecting the discussion above, the data show that friendship was also discussed in the context of one’s partner.

Often the issue of friendship came up within the context of communities of interest. These discussions went along several lines. One had to do with hobbies and free time activities. Another common theme concerned people who are in the same life situation, i.e. parents. A respondent in the Danish “both” group stated simply that “*You get common friends when you get children.*” (*DkB*) Informants noted that their children’s participation in sports and other activities results in contact between parents. After this life phase other friendship patterns arise.

Another set of comments in the material described relationships to those who are “near.” This grouping, which is particularly common in the reporting from France and Italy often includes a mix the immediate family and the nearest friends. In the apt phrase of the French analysis this is a “hard cell” of relations and friends.

This organisation introduces the need for special consideration vis-à-vis boundary definition. Since kinship is not necessarily a defining criterion, one must be aware of how the boundary is defined. This boundary definition is necessary at both the inner “intimate” level and at the outer periphery of the “hard cell.” One pragmatic technique of boundary definition, as suggested in a French “both” group, is in terms of with whom one’s telephone number is shared.

When discussing the near circle, there were several comments describing the couple's need to manage overlapping circles of friends within the family. In the words of a French respondent from the "net only" group,

*"We have one circle of friends together and each of us has their own circle" (FroI)*

A 51-year-old man from the Italian "neither" group noted that:

*(M51) Nowadays it's true that family members likely to move in their own separate social circles of friends. That is good because it favours a lot of exchanges between two members of the same couple. The diversity of the couple is an enrichment for each other. (ItN)*

Thus, as noted in the "neither" group from Denmark, partners often have their own individual friends as well as common friends. While the partners know each other's friends they reported that it is normal to see one's own friends separately on some occasions and together on other occasions. One informant in this group said,

*"My girlfriend and I have different network and different friends. We have also common friends. It is important to do things separately; it should not always be as a couple." (DkN)*

An informant in the "neither" group from Italy said

*"The diversity of the couple is an enrichment for each other." (ItN)*

However, another respondent noted that

*During my free time I always stay with my partner and I practise my activities with him. If the couple doesn't do everything together it won't be a real couple and they could have problems to find common conversation topics. (ItN)*

Thus, one sees a type of internal boundary maintenance within the social network. This is the maintenance of individual identity as opposed to a couple identity.

## **Colleagues**

There was a certain amount of discussion regarding colleagues. This group occupies an ambiguous position between the near social networks and those that are clearly distant. While the individual often spends extended periods of time interacting with these persons every day, the data seem to indicate that they are rarely considered to be a part of the near social sphere.

The most common issue when considering colleagues was the question of boundary maintenance. New ICTs provide new flexibility to the work/private boundary. One can receive job related mobile phone calls at home or on vacation. The Internet and remote working mean that one is often reachable for work purposes. Thus, many of the respondents were quite clear that this boundary must be maintained. In most cases colleagues are excluded from one's private life. They, for example, do not receive one's private telephone number according to informants in the "both" group in the Czech Republic. A similar sentiment came out in the "both" Dutch group where a 49-year-old woman noted that "work is work" One man in the same group said

*(F34) "I am reachable on my mobile phone or on my work, but my private phone number at home I keep for myself." (NIB)*

This boundary however is a one-way boundary. As noted in the discussion of the family informants felt that they could make private calls during working hours.

Overall, the most comments about colleagues were in the “mobile phone only” groups. The least were among the “Internet only” groups. One can speculate that since the key issue regarding colleagues is the protection of boundaries, then the mobile phone group is the group where this boundary is the most diffuse and thus where the problem is most obvious.

### **Socially distant relationships**

When discussing socially distant relationships<sup>28</sup>, there are several comments regarding the maintenance of the boundary between the near and the distant sphere. The need to protect oneself from intrusive sales persons and various forms of swindlers were mentioned. When considering this group, almost all the comments focused on persons met via the Internet. Because of this we will consider these social networks in the next section of the paper when we take up the issue of ICTs and the social network.

### **ICTs and social networks**

Turning now to the use of the mobile phone and the Internet in the maintenance of social networks, each of these technologies seems to have its unique role. As noted above, the use of these ICTs is not necessarily a primary reason for the adoption. Nonetheless, their adoption often comes to facilitate activities surrounding the social network.

### **The mobile phone**

When mapping technology onto these various constellations, the traditional telephone is a common resource for the home. The mobile phone is more personal and is seen as a part of the private and intimate sphere.

The data show that the mobile phone, and also the SMS function, was used for maintaining contact with near friends and close family. The mobile phone has become a tool with which one can co-ordinate various everyday activities within the social network and also maintain affective bonds.

Generally the material indicates that the maintenance of social networks is largely instrumental. This is seen in several ways. The mobile phone is used for arranging meetings, particularly when there is a change in plans (It, Dk, Cz) keeping in touch with others close to them (It, Dk, Cz, Fr) co-ordinating family responsibilities (NI).

### **The mobile phone and the familial network**

Many of the citations regarding the use of the mobile phone to interact with one's network were in the context of the immediate family. One can see this in the comments of a Czech woman.

*(F31) “I use a mobile to keep in touch with my family.” (CzB)*

Beyond simply keeping in contact, the mobile phone was used by the informants to solve practical problems within their families and to allow more open channels of communication.

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<sup>28</sup> As noted above these relationships are not necessarily distant geographically.

*(F38) "When my mother got ill, my oldest daughter gave her a mobile telephone and I gave her a prepaid card" (DkoM)*

Another 21-year-old Italian woman also indicated the importance of the mobile phone in the maintenance of her intimate social network. In this instance the importance was felt in terms of the inability to interact with her boyfriend.

*(F21) "Today I couldn't reach my boyfriend on his mobile phone and I felt done for." (ItB)*

The mobile phone was also seen as a way to increase contact with one's children. On the one hand, it gave parents and children a more direct communication channel.

*(M50) "My children live in a students' [dormitory] where the phone is always busy, so they call me on their mobiles and ask me to call them back. It's typical of how young people use the mobile phone." (NIB)*

As we have seen above, the material also indicates that the device allowed for the parents to "multi-task" and thus develop and maintain links with their children while at the same time carry out other everyday tasks.

At the same time the mobile phone was not seen as a device without its drawbacks. The use of the device was not a complete substitution for more direct contact, particularly in the case of younger children.

*(F49): Using mobile phones to stay in contact with your children can make a false feeling of security. It is much better to have the face-to-face contact." (DkB)*

The mobile phone was also seen as having the potential to be disruptive for the close family as can be seen in this comment from the Danish material.

*(M47) "In my family we have rules for using mobile phone. All phones – especially the children's – have to be turned off when we eat." (DkB)*

Thus, the mobile phone has found a certain role within the maintenance of the family network. It allows for the establishment of communication channels when others are more difficult or less accessible.

### **The mobile phone and non-familial social networks**

We turn now from the use of the mobile phone to communicate with the familial to its use for communication with the non-familial. In this context its use was clearly seen in the ability to co-ordinate social interaction. The following comments show that the device was used to organise get-togethers of various types.

*(F20) "I write a lot of SMS during university lessons because I have to organise evening meetings with my friends." (ItM)*

*"Somebody can give you a tip on where to go and meet others.' 'To let them know I'll be late." (CzB)*

*(F35) "After the cinema I often call my friends to organise the dinner 'on-line with SMS or calling by phone". (ItB)*

*(M18) "I'm in touch with my friends more. I can talk with them and co-ordinate better thanks to the mobile phone." (CzB)*

Other research has shown that this type of interaction is perhaps most common for teens and young adults - that is those who do not normally have access to a telephone in their daily activity (Ling 1999). The adoption of the mobile

phone reflects a desire, and often a need, to interact in spite of structural barriers. Its adoption also helps to maintain the social network. Beyond the use of the device for co-ordination, the comments indicate that the mobile phone was also used for various forms of communication among friends.

*"The best way to communicate with friends is the mobile phone and, overall SMS" (ItB)*

*(F33) "The mobile phone is a strong help to mobility and it allows me to increase my relationships" (ItB)*

As one can see in the following comment from the French "mobile only" group, the mobile phone allows for "on the fly" interaction with friends and a way of simply, checking in, and refreshing the relationship.

*"It's a way of multiplying contacts even if the conversation is shorter" (FroM)*

There is a sense in some of the comments that the communication goes beyond co-ordination and also includes interaction at a deeper, perhaps more emotive, level. One sees this in the comments of a woman in the Czech Republic who said:

*(F) "I can send an SMS just to say hello or to find out whether there is a will to communicate on the other side." (CzB)*

Also an Italian informant indicated that she also used the device to send more expressive messages to a member of her intimate sphere.

*(F22) "I use it to send lots of kinds of messages, for example a single ring [without waiting for an answer] to say 'I am thinking of you'" (ItB).*

Another respondent from the Czech "mobile only" group pointed out that:

*"It is refreshing or relieving' to confide or just chat with a friend when there are a few minutes available. Personal contact is preferred but not necessary, and mobile telephones are a good substitute for seeing people in person." (CzoM)*

As with the sick grandmother described above other discussed using the mobile phone to call friends when they are sad. One might comment that there is nothing unique about calling a sick friend, after all the traditional telephone has been used for this purpose for decades. There are two important points. The first is that the mobile phone makes it easier for one to find points in the day when one can take the time to make these calls. Thus, it allows for a more organic type of communication. Rather than having to think through when one is near a telephone and thus when they can call one can simply make these types of calls on the spur of the moment. The second point is that this type of use signals that for some the mobile phone is starting to be seen as more than a simple co-ordinating tool. The democratisation of the device and the falling price for use are likely responsible for this.

The widespread use of the mobile phone for emotive calls however seems to be somewhat in the future. The legacy of expensive airtime and the emphasis on simple "telegraphic" types of calls is likely to linger in the backs of some users minds for decades to come as indeed it has with the traditional telephone (Brandon 1981). However, following from the notion that the adoptions of technologies follow various career paths, one can suggest that as the mobile phone becomes more common in society, one will see more of this type of use.

When comparing the various groups, one finds that the “mobile phone only” group was that group who most clearly saw the device as a co-ordination tool. It was the “Internet only” group who made the fewest comments in this direction.

By contrast, the Net and specifically e-mail are discussed in maintaining contact with those who are more geographically removed. This seems to suggest the notion that the mobile phone is used for the immediate social network while e-mail is used for more distant relationships (either socially or geographically.) One is beginning to see the way that the mobile phone reconfigures the immediate social network and the way we co-ordinate activity

### **The Internet**

When considering the Internet and social networking, e-mail was often seen as allowing the maintenance of a broadly, but loosely knit network. In addition, it provided access to other, more remote social circles and communities of interest via “chat” groups.

#### **Using the Internet to maintain contact with friends abroad**

One of the strongest findings from the analysis of the material is that the informants reported using the Internet to maintain contact with geographically distant friends. As already noted above and as one can see from the citations presented below this was a theme in several of the countries.

*(F30) “I mail a lot with my friends, especially those abroad” (DkB)*

*(M47) “I stay in contact with our friends in Norway a couple of times each week. Short news” (DkB)*

*(M46) “I have a lot of e-mail with friends in Argentina” (NIB)*

*(M48) “I have a lot of friend’s abroad. We send e-mails.” (DkB)*

*“I like to e-mail friends in Montreal.” (FrB)*

Beyond simply using e-mail to stay in touch the informants also spoke of using it to supplement and refresh friendships in the period between visits and other forms for more synchronous interactions. Thus, the telephone was used to indicate special occasions and visits allowed more direct contact. E-mail, however gave the informants to keep up the friendship between these occasions.

*(M28): “One of my friends lives in America; we call each other on birthdays and use email for regular contact. I see my in laws more frequent since they have moved into the neighbourhood” (NIB)*

#### **Intimate and near interaction and the Internet**

The data show that some informants also used the Internet to maintain contact with their family and other persons in the intimate sphere.

*(F35) “I use constantly the Internet to communicate with my relatives and friends”. (CzB)*

This was perhaps most common in the “Internet only” group. Here one finds the example of a Peruvian woman living in Spain who had even used a webcam to send pictures to her family in Peru. Interestingly, this women’s experience with the Internet described the latter portion of the Internet “career” development as she had moved from e-mail, to progressively chat and webcam in her interactions.

The contact via the Internet was not simply retrospective with one's family of orientation. Indeed, a 30-year-old woman in the Danish group was in the process of establishing a family of procreation with a man who she had met through the Internet.

*(F26) "Among the people I like, there is someone I met on the Internet" (FrB)*

Another person in the Netherlands spoke of maintaining his relationship to his girlfriend via e-mail.

*(M46) 'Everyday I send an e-mail to my girl friend in Australia. It's too expensive to phone every day.' (NIB)*

### **The Internet and the local social network**

While the preponderance of the interaction between friends was over long-distance, there were also informants that spoke of maintaining their local network via the Internet. One can see this in the comments of a 33-year-old Italian woman and also a 23-year-old French informant.

*(F33) "I use mail or chat mainly to communicate in a quick way with others also to organise evenings" (ItB)*

*"Once a friend here told me, let's communicate through Internet. I find that too bad" (FrB)*

The French informant noted the centrality of the Internet, not only in terms of the co-ordination, but also at a more basic psychological level when she noted:

*(F23) "When I come home, the first thing I do is to read my friends' e-mails" (FrB)*

Her comments point to the degree that communication via the Internet was central to her sense of integration in the social network.

### **Negative effects on the local social network**

While the range of interaction was increased via the Internet, there were also concerns that the technology took time away from the more immediate social network. A common theme across many of the groups, including those who have extensive experience with using the Internet, was that it could lead to isolation from one's near milieu. The sense here was that the Internet isolates people from direct face-to-face interaction with the intimate sphere even more so than with the TV and causes them to forget their familial responsibilities. The image of one sitting in front of the PC, late at night, using a false identity and chatting with other similar people on the other side of the globe haunts the informants to a certain degree. There is a sense in the comments that one should spend time with close family and friends here and now.

*"At first, with the acquisition of Internet, I did not go out as much and very quickly I missed socialising. It did not replace my friends" (FrB)*

*(F42) "ICT make easier approaching people who live far from you, and make more difficult staying in contact with people close to you. Now I can have friends in Australia but I can visit my parents less because I have less free time." (ItB)*

The literature of social relationships describes the dyadic withdrawal associated with the establishment of new friendships (Johnson and Leslie 1982). Meyrowitz (1985) also describes a type of withdrawal associated with the TV. The material here suggests a type of Internet withdrawal in terms of one's interaction with the local network. Thus, there is a paradox. While the

Internet provides greater access to the geographically distant network as well as the loosely knit communities of interest, this can be seen as stealing away time from the near social network.

### **Chatting and the use of boundary maintenance**

Another issue associated with social interaction over the Internet is boundary maintenance. The technology allows one to meet and interact with others outside of one's normal sphere. The informants, however, felt that this was not completely free from problems. On the one hand, informants noted a pleasure and excitement derived from interacting with new people. In this connection the potential of the Internet were often mentioned. On young male in the "both" Spanish group noted

*(M26) "Once time I had to be at home with a broken leg the whole day for one month. I enjoyed myself chatting, and I knew a lot of people". (EsB)*

Thus, chat groups were seen as a way for persons who are isolated in their local social groups to develop a network and to have social interaction.

Beyond those who are incapacitated others mentioned the potential of "chat" for those who are, timid. The technology can allow them to meet and interact with others.

However, the acceptance of this form of interaction was not universal. A 29-year-old man from the "both" group in Spain bluntly said,

*(M29) "Chatting is bullshit." (EsB)*

A comment from the Dutch "mobile only" group also puts chatting in a poor light

*"Chatting via Internet [ and pretending you are somebody else]: it is pathetic to have contact in this way, pathetic" (NloM)*

Informants noted that since one is not close to those with whom they are interacting that the normal courtesies fall away and that "flaming" and other forms of anger come to the surface. A 31-year-old female informant in the "Internet only" Spanish group noted

*(F31) "There are people who lie or insult in the chats because you do not know with who you are chatting." (Esol)*

While the most common reaction to this form of interaction was negative, some informants saw the positive side of chatting.

### **Analysis: implications for the future**

So far we have focused on the what the focus groups have to say about the three key social dimensions of time use, mobility and social networks and how they relate to the use of ICTs in everyday life. But their comments also reveal implications for the future as we find as they discuss expectations about future changes in these social processes which have implications for changes in the use of ICTs. These implications will be discussed in this chapter.

### **Time use, ICTs and the future**

Knowing how people distribute their available time among a number of possible activities is certainly regarded as being an important issue for telecoms companies. Such knowledge forms the base from which we imagine how new time-saving and time-consuming ICTs and services will be used. This

is especially important when we consider that time is a finite resource. In the end, despite all the new kind of services and multitasking possibilities on offer, there will still be only 24 hours a day.

### **Time use, life stage and future use of ICTs**

In our material we find that the most important changes in time use occur in connection with changes in life-stages, which includes starting to study, moving in together with a partner, having children and reaching retirement. The demography of the household is the most important factor shaping time use in everyday life. In the European countries we see a tendency towards smaller and smaller households. More people live alone at the same time as the number of children per household is decreasing<sup>29</sup>. As people who live alone have no other persons at home who can receive messages and react to them it is more important for those singles to be reachable e.g. by mobile phone. We cannot see from the material in this project, whether the people living alone also have a more widespread network which might make e-mail a more useful facility for them than it would be for those people living in couples or families. It is also quite obvious that age is an important factor in the way one uses time in everyday life and one's attitude towards the use of the new ICTs. Among elderly people, the older technologies are regarded more positively while the newer technologies, which are often seen as being a waste of time. Younger people are more attracted by new technology and men are more attracted by it than women. It is a question both of the domestication of the technology and of the experience of practical usage of the devices and services. In the future the use of mobile phones and the Internet will in general be more widespread in the European population simply because of demographic changes.

When they were younger the current generation of elderly people were taught to use the telephone as a "speaking telegraph". It was only supposed to be for short messages. Many elderly still have this attitude, which means that they have low telephone expenses. But with the domestication of the telephone, this established ICT became a device for maintaining social contacts (cf. 8.3) which in turn implied a different use of time for contacting friends, family and for more official affairs. In this study, nearly every one of the participants thought that the fixed phone was the most important ICT for residential use and also expected it to remain so in the future.

Some younger people, though, only have a mobile phone. In its early years, the mobile phone was only used by business people and was reserved for making and receiving short messages. Nowadays younger people are spending a good deal of time communicating by the mobile phone, either using it for voice messages or using it for SMS. Some adults (It, Cz) also use SMS frequently and find it to be time-saving in the same way as e-mails are. The writing system for the mobile phone is being developed so that in the future it will be still easier to use. In the data we find the expectation that at some stage we will

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<sup>29</sup> Though there are national differences in Europe with regard to the numbers of persons in each household the tendency towards smaller households is general. But it is an uneven distribution e.g. in Denmark we see both an increase in the number of households without children but also an increase in the number of families with 3 children or more.

have everything on the mobile phone. With the future WAP services, GPS, etc. the mobile phone will change from being a phone to being a mobile device for both communication and information, with services which participants expect to be time-saving.

The computer was originally to be found in universities and in larger companies. Later came the PC. Recently it is children who are the ones demanding ever faster PCs with greater capacity to run their computer-games<sup>30</sup>. Both children and adults are surfing the Internet, but in our data we do not find indications that elderly people use time on the Internet in this way. E-mails have increased the amount of time spent on writing messages enormously, as friends and families can get the same message quickly. People still send hand-written letters for birthdays, etc so the time spent writing e-mails are not quite a substituted for the time spent writing letters. Instead e-mails constitute another kind of written communication which is regarded as being less formal. This way of communicating is expected to become more widespread in the future. All in all, we find that the time used for communication has increased considerably and that the informants expect that this development will continue - especially as more and more people go on-line.

In the data we find that some families with grown-up children have become more widely dispersed with examples of both the parents and children moving to other parts of Europe. This tendency is expected to continue within the EU countries, but it might also occur on a more world-wide scale. This development has the potential to shift time used for face-to-face meetings into time spent keeping in touch via the Internet. The data show that such families were among the more experienced users of the Internet, e.g. sending small video streams or digital photos of a birthday party attached to e-mails to their parents or grandparents who lived in another country. Hence, in the future we might expect to find people using services involving, for example, more user-friendly webcams in order to supplement a feeling of close contact with dispersed families - perhaps instead of using time for travelling to see them.

### **Time use, future work and ICTs**

In the data we find that people's working conditions had an important influence on the use of ICTs. In a Spanish group we find three discourses about the future of ICTs where the informants thought primarily about the use of ICTs in production, but also reflected upon the consequences for workers in their private lives. "The syndicalism discourse", respondents thought that new ICTs would ease our lives but at the same time create unemployment, leaving some people with too much time but little money to purchase new ICTs. There was a "productivity discourse" where ICTs were expected to be both time and money saving. Finally there was a "liberation discourse" where the rise in

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<sup>30</sup> In a Danish survey Kirsten Drotner has showed that these children who spent a lot of time on computer-games also are those spending most time on organised sports, reading books and other activities. They are simply more active. But they do not spend time on reading cartoons and less time on watching TV series (they use the same time on watching films).

productivity would result in more leisure time for workers. Across Europe we now see a tendency towards an increasing number of paid days leave which actually provide people with more leisure time possibilities. More such holidays will lead to more travelling and the use of ICTs, c.f. 8.2

Teleworking from one's own home is expected to grow. In the material we find very different attitudes to this possibility, c.f. 5.4, but there were positive attitudes among those who actually had this possibility. The benefits of telework and flexible working hours are recognised by both employers (in terms of attracting qualified staff, less need for office space and having flexible employees who often work after hours) and by employees (in terms of providing a flexible time schedule, more contact with the children and less time wasted on transport to workplace). So it is expected that this way of organising working time is going to become more common across European countries in the future. This will lead to an extensive change in the timing of activities in everyday life. It may not automatically result in less time being used for transport<sup>31</sup> since people might choose to set up their residence at a greater distance from their workplace if they do not have to go there every day. In our material we see that the working hours of teleworkers were often adjusted to the needs of the family life and were carried out at different times during the day compared to more standard office hours. The implication for the use of ICTs is that more Europeans will be connected to the Internet, where the technology (PC, ISDN line or ADSL) will be paid for by the employer. This can well have an effect on the use of the Internet for the whole household. Telework is of course not possible for all kinds of work, but the proportion of situations where it is possible and practical is growing (e.g. among white-collar workers, independent professionals, etc.).

### **Time use and future adoption of ICT services**

In the data from the user groups we see that time-saving services such as home banking, e-commerce and the facility to make contact to local authorities are already used by the experienced users. It seems to be a part of the domestication of the technology that these services will be used more as users become more familiar with the Internet. We do not have enough data to analyse differences between user groups/segments but it is obvious from other studies, that when more people acquire access to the Internet in the near future, these services will have to be developed so as to become more user-friendly. Otherwise any time-saving benefits will be reduced by the time-consuming efforts involved in learning how to use these systems.

Time-consuming services are only accepted if they are regarded as being fun, practical or necessary. Surfing the Internet is regarded either as being fun, a way to find new information which might be useful (e.g. in one's job) or for practical things like repairs. In the data there was one example of distant learning at a university in another part of the country but we have no indication

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<sup>31</sup> The conclusion of several studies presented at the PICT-conference, London, May 1995. A recent study of teleworking in southern Jutland concludes that the use of transport has even risen for those people.

as to the development of this practice within the educational systems in general of the various European countries.

An important point about time pressure and use of ICT is that, in contrast to the business customer, residential users do not see the rationale of "time is money" as being the key reason for requiring new ICTs. The data show that when residential users have acquired a mobile phone or access to the Internet they were actually divided in their opinion as to whether the devices and services are time-saving or time-consuming. Those people who did not have either of these new technologies stated that time pressure would not be the reason for them personally to acquire a mobile phone or access to the Internet.

Consequently we can conclude that pressures of time will not be the reason for residential non-users to suddenly become users. However, if they, for other reasons, acquire these new technologies, then both the timing of activities will change as will in general their time use in everyday life.

Finally we have a provocative quote from an Italian non-user:

*"The more time you have the more time you need. The more things you have to do, the more things you would like to do. It is not possible for any technology to help you"(ItN)*

## **Mobility, ICTs and the future**

### **Mobility**

We can start with some observations about mobility in general in the near future - although the exact time scale needs also to be considered. In principle, mobility in general or specific types of mobility could increase, decrease or stay the same. In practice, there seems to be little discussion of mobility decreasing. Sometimes environmental concerns are cited as one reason why in the long term our lifestyles might have to change, but in this study the focus groups never raised this possibility. Factors such as recession can obviously have a bearing on the amount which people travel, but this is likely to be a relatively temporary phenomenon given that the longer term trend has been towards increased affluence.

We saw how few people in some of the groups, but very few, made some negative comments about the effects of increased mobility. However, most comments about this trend were either positive about it or else saw it as being inevitable. Given that increased mobility was not defined as being a 'social problem' by most people, it would appear that there was little evidence from this particular study to suggest that an underswell of grassroots pressure aimed at taking actions to reduce mobility. If individuals had problems because of the amount they had to travel (e.g. commuting), then it seems that they found individual solutions to these problems (e.g. moving nearer to work).

There has been some discussion of whether at some stage in the (near?) future the amount of everyday mobility might stabilise as we reach our capacity to be more mobile (Vilhelmson, 1999). For example, how many more cars per household will people want? How much more congestion on the roads will there be before people reconsider making journeys. In the shorter term, how difficult is it to increase our capacity to be mobile because it takes time to

change the transport infrastructure (e.g. expanding railways)? More generally, when do we run out of time for travelling?

In the focus groups, we start to see examples where people have already reduced some of their travelling because of such factors and where there have been some trade-offs (e.g. if people have to be more mobile for work, they sometimes choose to be less mobile in their free time).

With these reservations, the more likely scenario is that in the near future there will be some more mobility overall since many of the factors cited by focus group members are likely to change in a way that is conducive to more travelling - e.g. there is likely to be more affluence, more studying and working in other European countries, people's geographical horizons are still being widened as they are encouraged to think of leisure travel to new destinations.

### **ICTs and mobility**

The relationship between mobility and ICTs is clearly complex. We have specific examples where the mobile phone and the Internet can increase the amount of certain types of travel (or the amount of time spent out of the home). But equally, there are examples where certain forms of mobility are reduced because of using these ICTs.

Moreover, compared to the other factors at work which were cited by the focus groups, there is a question as to whether ICTs make much difference overall to everyday travel, of whether their influence is relatively marginal - i.e. there may be occasions where they make a difference, but in the broader picture this represents only a small proportion of people's overall mobility<sup>32</sup>. Of course, this only deals with the overall frequency or duration of travel. It may be that when ICTs either lead to more mobility or reduce some mobility, this can have great psychological salience for the people concerned, with a perceived improvement in, or alternatively a degradation of, their quality of life.

There is very little indication from the focus groups that people are acquiring ICTs such as mobile phones and the Internet because they specifically want to be more or less mobile as an end goal (certainly not for leisure purposes). At best people want the technologies because of the opportunities that they provide. This in turn may then affect mobility. For instance, mobile phones may affect people's chances of getting work or may affect the way they conduct their business, which then in turn mean that they travel more or less. And although some people in the focus groups mentioned that with the Internet it had become easier for them to work at home, they did not usually suggest that they acquired Internet access specifically and solely for that purpose<sup>33</sup>. It would seem that a more common experience was that people acquired these ICTs, and then found that, in particular ways, they could use them in ways that had some impact in the journeys they made.

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<sup>32</sup> Perhaps the exception discussed by the focus groups is telework - but the size of this practice and hence its growth is difficult to measure (Haddon, 1999).

<sup>33</sup> One possible exception (apart from maybe home banking) is home shopping, but even then some of the discussions suggest that even those interested in this development may not give up travelling for all shopping purposes - home shopping opens up new shopping opportunities and may affect shopping decision making, all it may also affect the decision to make certain journeys at certain times.

But there is different question of whether people acquire some ICTs - thinking here mainly of the mobile phone - partly because they are fairly mobile, perhaps more mobile than they were in the past, or more mobile than previous generations. For example, the emergency use may appeal more now than it would have 10 or 20 years ago because people in general make more journeys now. The mobile phone's usefulness when abroad may reflect the fact that there is simply more international travel. In a similar way the Internet becomes more useful for booking travel by virtue of the fact that more people travel. Meanwhile e-mail becomes more useful for keeping in touch because people have more contacts abroad. Meanwhile, the mobile phone's usefulness in second homes may reflect the fact that more people have second homes. Raymond Williams argued that the growth of range of ICTs in the UK early in the 20<sup>th</sup> century (e.g. photography, gramophones, cinema) as well as the growth in popularity of media such as newspapers reflected the greater geographical mobility that was occurring at that time as people moved to live and work in different locations (Williams, 1974). This led people to take more of an interest in ICTs which preserved memories and helped those who had moved to keep in touch with what was happening in the places where they had come from. In other words, changing experiences made the time period especially favourable to these new innovations. The same type of argument could be suggested here. In this case, we might speculate that growing mobility in everyday life has favoured both mobile phones and the Internet, giving rise to more occasions when such ICTs have become very useful.

Of course, the degree to which we are mobile is not the only reason for acquiring ICTs - in fact, it is usually not the main reason why people get Internet access (Haddon, 1999). And mobile phones are also bought for a variety of other reasons - e.g. because they provide a personalised communications link rather than people having to share a communal household phone. However, if we expect some continuing growth of mobility then we can at least say that this continues to provide a favourable condition for these two ICTs. The question which it is more difficult to answer from the qualitative data is whether some of the factors contributing to mobility which were cited in the focus groups would actually provide predictors of those people who are more likely to acquire technologies such as the mobile phone (e.g. those who travel more for work, those with second homes, etc.).

Turning to a different type of issue, one possible use of these data is for marketing purposes. Staff involved in marketing mobile phones (and services) and Internet access (and services) might focus advertisements on some of the particular experiences of mobility which were outlined by the focus groups. These have the merit of showing when these technologies might be useful to current non-users. This becomes important when we recall that some of the evidence suggested that non-users did not always realise how a technology could be useful until they actually have one and experiment with it or else found themselves in certain situations where they discovered they could use it. Obviously as mobile phones and the Internet become ever more ubiquitous even non-users have more chance of observing others or hearing about such situations by word-of-mouth.

Another use of the focus group feedback is where it allows us to think about the grounds for further innovations. For example, there was obviously a high awareness of the usefulness of existing mobile phones in emergencies - so here we have important usage even if not a frequent one. Moreover, the focus groups drew attention to some of the different types of event which could count as an emergency. So one could think through, as some companies are undoubtedly doing already, what facilities besides basic voice telephony might be useful for people to have access to in the event of these various different types of emergency. This would be not only in terms of mobile services, or features built into existing mobile phones, but would also consider any portable ICTs that people might be carrying with them. For example, in what circumstances is it useful for people experiencing an emergency to know or be able to find out or be able to send or otherwise indicate their location? Do people need some 'emergency' service numbers (e.g. for car breakdowns) built into a phone? Do they need some pre-set messages in case there is difficulty talking (e.g. if experiencing heart attacks). Or what do they need to have if they are in another country? And considering the person who has a mobile phone in order to be contacted if someone else has an emergency, what would it be useful for that person to have access to.

To provide another illustration of the same approach, the focus groups provided some examples of the different situations in which ICTs can be used for co-ordination. For each scenario which they discussed it should, once again, be possible to reflect on what else it might be useful for people to have when co-ordinating their movements or arranging to meet. This could include access to or downloadable street maps, traffic condition indicators, route-finders, timetables or information relating to transport delays and disruptions? Perhaps we might think of a note-taking capacity or recording capacity for saving instructions? Then there are possible locators of some sort, or devices to interact with someone else's equipment to show how near they are or in what direction they are if people are meeting in crowded conditions? Or we might consider a ability for two people who are planning to meet somewhere to be able to mutually see lists of options (e.g. of possible meeting places, of what cultural events are taking place, etc.)?

Finally, a slightly different approach to the focus group feedback is to ask how common or significant the situations are which they suggested when discussing the utility of ICTs like the mobile phone. For example, a number of people pointed out that the mobile phone enabled them to avoid being tied to the home (or workplace). But in what circumstances is this an advantage, for whom and how often? And how important an advantage is this? This could lead to the development of a range of scenarios of everyday life situations in order to begin to at least begin to assess these questions.

## **Social networking, ICTs and the future**

### **Social networks**

When speaking about the future trends of social networks, the respondents were not able to provide many insights into any general social trends. Indeed,

this is difficult to provide in any case. That which arises is general comments about the closeness of the family, the hopes for friendships and their perceptions and experiences vis-à-vis social interactions.

When considering the future of the various social networks, one must differentiate between the future of the family and that of friendships. Generally there was a sense that the family will continue to be a central locus in society. It represents a refuge from other more difficult social situations. At the same time the future may bring the need for a compartmentalisation within the family. This can be either based on the dissolution of the family of orientation, or based on a perhaps burdensome responsibility to one's elderly parents. Given the high divorce rate and also given the fact that people are living longer and longer there will need to be the maintenance of a boundary between the most intimate familial sphere and other portions of the family. Turning now to interaction with friends, the material indicates two forms of insight. On the one hand there is the suggestion that it is becoming more and more difficult to find the time for friends. Another theme was that the future will bring more superficial forms of friendship. Stepping back from the data for a moment, these two themes may have validity, none-the-less; one must also take into consideration that the interviewees were often approaching middle age.<sup>34</sup> Thus they were in a particularly intense portion of their lives wherein career, family and other responsibilities were replacing the memories of a younger period that is often more focused on friendships. Thus, it is possible that the comments about less time for friends and more superficial contact are more an artefact of the informant's life situation than a general trend of the times.

Beyond the immediate family and the group of near friends, there are colleagues, neighbours and the more distant portions of the social network. In this case there seems to be a trend toward greater contact with these more remote portions of the social network. The interview material included many comments regarding increased contact with remote relatives, distant friends and even, in some cases; new friendships based on electronic mediation. This perhaps, provides us with the opportunity to make the transition over to the discussion of the future of social networks in the light of ICTs.

### **ICTs and social networks**

Turning now to the impact of ICTs on social interaction, there are several issues at play here. On the one hand one can consider the various groups with which one communicates and another dimension to consider is the type of interaction. Beyond this we will look into future technical developments and their likely impact on the development and maintenance of social networks. Looking somewhat broadly at this issue, there is a type of three sided interaction involved in the individuals interaction with the local and the distant social networks. The data here and other work indicate that the size of the local network is somewhat constant. The impact of ICTs will be to make the communication more efficient. Rather than effecting the number of interlocutors, it will effect the style of interaction. The efficiency of

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<sup>34</sup> The mean age of the informants was slightly less than 37 years old.

communication via ICTs has the potential, however, of expanding access to remote portions of the social network, i.e. those living abroad or in more distant locations. When looking at these two contrasting effects, one may find that the use of, for example the Internet to communicate with remote nodes in the social network (along with all the other time used on the Internet) has the potential of taking time away from the immediate, intimate sphere in a type of Internet withdrawal. These points will be explored below.

### **Local networks**

When considering the social networks that are geographically local, there are several issues to consider. On the positive side these include enhanced ability to co-ordinate with other members of one's social circle and more efficient messaging. Other, less positive effects can be the acceptance of more superficial interaction and the need to reallocate time away from local interaction in favour of maintaining more distant social networks.

It has been pointed out several times in this report that the mobility of future ICTs means that one is able to co-ordinate interaction in a more organic fashion. Thus, as various exigencies arise, these communication channels allow one to readjust meetings and interactions "on the fly." In addition, the fact that one is available in this way means that one can, in effect, carry out different activities simultaneously. This is seen in the example used above, while the mother was in the park with her child she was also available to her colleagues via a mobile phone.

At a more impersonal level the use of mobile communication technology will soon have the ability to interact with third-party information sources and thus provide the individual with context sensitive information as needed.

Interactive bus schedules, suggestions as to specific types of service availability, GPS mapping combined with the location of various facilities and interactive information regarding the schedule of other network members may migrate over to these types of platforms.

This will allow for more efficient messaging within the group and allow one to automatically filter information for only that type and those persons that are appropriate at the moment.

Increased bandwidth will also allow for the possibility of visual interaction. Thus, members of the intimate sphere will have the ability to interact visually as well as audibly. The degree to which they accept this offer is another issue.<sup>35</sup>

The change in the style of interaction with the local and intimate spheres is not only positive. ICTs also have consequences for the control of information and for the emotional depth with which interlocutors experience communication. Research on the use of mobile telephony indicates that it can change the way in which information—and by extension power—is controlled and distributed within an organisation (Manning 1996). Mobile communication means that one is not able to be sure of where a conversation partner is located. Thus, while children may tell parents (via the child's mobile telephone) that they are studying in the library the child may well be having a *rendezvous* with their boy/girl friend. The sense of security that the parents sought when providing

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<sup>35</sup> For an analysis of the social consequences of video telephony see Ling (1997).

their child with the mobile phone is, in this case, false. Beyond this, the growing access to inexpensive communications channels that are beyond the reach of authorities (for example parents), means that it is easy for children to establish a parallel communication system that is outside the parents' purview. The very flexibility described above can become problematic when it is used inappropriately.

Another issue is that the efficiency of the communication channel can, in the eyes of some, result in more artificial and perhaps inauthentic interactions. If one, for example, squeezes in a call to their sick grandmother while driving home from work the effect may be less comforting and suggest more that one does not take the time to attend to relations in the intimate sphere. Thus, the spread of these efficient communication channels means that there will also have to be a negotiation as the meaning of the communication.

A final issue to consider in this context is that the technical development of ICTs presents the individual with a wide variety of possibilities, not all of which are adaptable. The engineering of intimacy and friendship is difficult and the inclusion of various "helpful" functions in the ICTs may mean that the individual ICT becomes less comprehensible to the individual. The classic "flashing 12:00" on the video player is an illustration of this. While the engineering and the functions available are advanced, the individual's desire and ability to adopt them into their every day lives is less obvious.

### **Distant networks**

Turning now to the distant networks, the developments in ICTs, and in particular systems such as e-mail, indicate that one will increasingly be able to develop broader social networks. These can take two forms. On the one hand, inexpensive communication channels allow one to maintain, and even establish, interaction with friends and family members who are geographically distant. In addition, the future seems to hold the possibility of allowing one to establish communities of shared interest as opposed to the traditional communities of propinquity.

Communication with "remote intimates" is often seen as one of the great advantages of the Internet and e-mail. The further penetration of this technology into the society will reduce the threshold with regards to this type of interaction. Thus, instead of the annual Christmas card one may well be able to hold an ongoing interaction. The spontaneity of the communication along with its growing accessibility means that these networks will continue to become available.

There is, of course, a corollary issue here in that more open communication may result in offers for interaction with undesirable partners. Thus, various forms of technical filtering as well as socially based "brush off" techniques will likely be developed in order to protect one from old—and mostly forgotten—college chums, unwanted "junk e-mail" and even malicious messages. Beyond communication with the remote intimates the new ICTs hold out the possibility of establishing communities of shared interest as opposed to communities of propinquity (Wellman 1998). In this way, one is able to seek out others with similar interests or needs from a much broader pool. The isolated fly-tying enthusiast or folk dancer can use the facilities of the global

Internet to come into contact with like-minded individuals. While it may not be possible to completely constitute the group dynamics of a face-to-face interaction for these groups, the efficiency of the communication allows on at least a vicarious participation.

Another type of remote interaction that has arisen is the development of intimate and quasi-intimate relationships that are established and elaborated more or less exclusively via mediated communication. As the reader has seen, this development has been the object of interest on the part of the focus groups informants. There has also been an academic discussion regarding this issue (Garton, Haythornthwaite and Wellman 1997; Jensen and Jakobsen 1998; Katz and Aspden 1997; Lea and Spears 1995, Parks, 1996; Parks and Roberts 1998; Wellman 1997, 47-48).

In some ways this phenomena plays on the issue of artificial and inauthentic social interaction discussed above. At the same time, the research on the issue along with the experiences of individuals points out that this approach to finding both friendship and intimacy is not to be underestimated.

### **Internet withdrawal**

Finally, we wish to point attention to the interaction between the introduction of mediated interaction via ICTs with either “remote intimates” or other social groups and the interaction within the intimate sphere. The literature of social relationships describes the dyadic withdrawal associated with the establishment of new friendships (Johnson and Leslie 1982). Thus as a new friend enters into the social sphere, he or she takes time away from other members. This is particularly the case when considering romantic relationships. If we take the clue from Meyrowitz (1985), electronic equipment can also have certain types of “social” characteristics. In particular he describes a type of withdrawal associated with the TV.

The material from the focus groups suggests a type of “Internet withdrawal” in terms of one’s interaction with the local network. Thus, while the Internet provides greater access to the geographically distant network as well as the loosely knit communities of interest, this can be seen as stealing away time from the near social network. As the system becomes more embedded in social networks this issue will likely be the object of various types of negotiations.

## Part 2

### Informants' perceptions of ICTs

#### ICTs in general

##### **General response: Those with no mobile phones nor the Internet**

Most of the groups without mobile phones and without the Internet were not anti-ICTs per se. They could usually evaluate ICTs pragmatically and rationally, both in terms of advantages and disadvantages in general as well as in costs and benefits for them personally. Hence they were not worried about the technology; it was not a threat even if some recognised that it could be misused or that ICTs were 'double-edged' in their effects.

*(F40) "New technologies allows you to practise more activities but they make you frenetic and stressed". (ItN)*

However, there were two examples of groups showing more resistance to ICTs. One of the Czech groups (CzN), as was clear from other comments above concerning mobility, clearly felt that they were trying to maintain an older way of life and values in the face of the rapid social change in Eastern Europe. They admitted the practical benefits of ICTs, for example acknowledging that communication ICTs can save time, money and effort. But more generally the group was very conservative. It did not seek innovations and saw ICTs as being cold and functional - hence its members were not fascinated by technology, they did not think in terms of enjoyment in using ICTs or that the technologies might broaden their field of social contact. Besides, modern ICTs were too complicated for them personally to handle - as well as being expensive and hence unattainable.

Somewhat related sentiments were expressed by one of the French non-user groups (FrN). Based in a provincial town, they too were attached to the way of life with which they were familiar. They did not know much about ICTs, especially the women and older people. They are suspicious of the technologies, resisting ICTs because they wished to stay in control of and preserve their current quality of life. The members of this group feared being unable to control new technologies since ICTs were evolving so fast that it was difficult to keep up. In fact, they regarded having to learn and use them as being a new kind of 'slavery' for young people as well as expressing various other concerns about the technologies (see below)

They were just a few examples within one group (FrN) of resistance to ICTs not because of seeing them as a threat but because being a non-user was actually a mark of distinction - i.e. it was part of some people's identity, involving a sense of being in control of their lives.

In addition, the Dutch report noted that some of their participants resented the expectation and pressure to always acquire new ICTs (including mobile phones and Internet access)

There was some discussion of whether it was easier for the younger participants to acquire new ICTs than older ones. It was felt that the latter may intellectually accept the technologies, but they tend to see them more as being something

which other people use (FrN). In fact, amongst some younger participants, the main reason why these young adults did not have some ICTs was not so much that they did not want them but because of their economic situation - once this improved they thought that might well acquire innovations like the Internet (DkN)

### **General response: Those with mobile phones and/or the Internet**

Sometimes these groups added more caveats about using ICTs carefully, and properly (ItoM, EsoM). But generally the users of at least one of the technologies were positive towards ICTs, seeing the advantages as outweighing any disadvantages. It was felt that to be important to keep up with technical developments (NloM) and some suggested that we could have better lives through the adoption of these technologies (EsoM).

It was amongst several of the groups who had both of these ICTs that we find the participants who were more likely to embrace change, feeling even more the need to keep up with developments (CzB, DkB, ItB). For these, ICTs were fundamental in life - if you did not use them you would be an outcast. Therefore it was important to experiment with them otherwise you would be behind the times (ItB). Hence, these users thought it was necessary for adults to learn to master ICTs while children should work with ICTs so that the technologies become a natural part of their lives. The need for ICT literacy was comparable to literacy in foreign languages (CzB).

Some of these groups which had both technologies acknowledged that ICTs do change lifestyles and challenge routines (CzB) or else they change the available options (DkB). This could make life easier and even improve the quality of life (ItB). Yet these participants also noted the importance of staying in control of ICTs (DkB) or using them well (ItB). A few even acknowledged a certain amount of dependency on ICTs. Once they used them, the participants recognised that they often could not do without certain technologies (ItB). Or at least they would not easily give them up again (CzB).

### **Concerns**

There were a range of concerns about the various negative effects which ICTs could have, but equally a discussion about the potential problem of unequal access to ICTs. And while more concerns were expressed amongst the group with neither mobiles nor Internet access, some concerns were also expressed in the other groups

#### **Exclusion from ICTs**

There was some discussion of how people might be excluded from ICT use through differences in income or through lack of training (FrN) and that this might lead to new forms of social differentiation (FrN).

*(F54) "In the future we will see new forms of class barrier depending on how we are using ICT. Both literally – do you have the money necessary for buying and using ICT – and connected to the use of ICT." (DkB)*

Hence there were particular concerns for the children from poorer families (CzoM). In addition, it was pointed out in one group that exclusion could exist because some forms of social participation would in the future only be handled

through ICTs (e.g. as happens currently when registering through Minitel for University courses) (FrN)

### **Isolation because of ICTs**

Another key concern was about social isolation through using ICTs (EsoM, ItoM, FrN) and perhaps also the threat of loneliness (NloM). Sometimes the danger was expressed specifically in terms of people becoming more isolated in the home and hence losing social contact with the immediate outside world (NIB) as we all become more individualistic (a concern especially voiced by the women in this group). In a similar vein, in one group it was again the women who objected to the amount of time which their male partners spent at the screen (NIN)

One variation, pointing to the question of ‘social isolation from whom’, was:

*(F40) “(On the one hand) ICTs lead you to have more interactions with people who like and use ICT but (at the same time) ICTs themselves lead you to be more isolation from people who don’t use them”. (ItN).*

Yet countering these concerns, some participants felt that the fear of isolation was more of an imagined than a real threat (FrN). Yet others pointed out that ICTs can also help to avoid isolation (ItB).

### **Impersonal relations because of ICTs**

More generally, there were some worries about moves towards more and more communication being mediated by ICTs.

*(M55) “What scares me is that we will forget the face-to-face contact and we will only keep in touch through instruments” (FrN)*

Hence some participants referred to the impersonality of ICTs and concerns that their use might lead to a loss of emotional feelings and the loss of an ‘authentic life’ (CzN). Some felt that life would become more impersonal through using ICTs since there would be less time for the type of personal contact described in the quote above (NloM). In one group (FrB) it was mainly the women with children who expressed concerns about the disappearance of such sociability and conviviality.

### **Dependency upon ICTs**

Several groups were worried about dependency on ICTs (CzN, CzB).

Sometimes this was expressed in terms of losing control over the time one spends using technologies (FrN, CzoM). Such fears of ‘addiction’ were specifically raised as a being a problem for children (e.g. and their use of PCs) (CzoM). In addition, it was noted that because people come to depend on ICTs, being without the technologies (e.g. when the PC breaks down) can create anxiety.

*(M31) “Last Saturday my PC seemed died. I thought I couldn’t be without it. I was going crazy... I stopped everything to concentrate my attention on my PC to try to repair it. The strange thing was I needn’t it in that moment” (ItB)*

And:

*(M44) “I work with my PC the whole day and if it crashes I’m as good as dead... so the thought of that makes me anxious” (ItB)*

### **ICTs creating new demands on people**

One critical observation was that while ICTs allow you to do more, they also make you frantic and stressed (ItNt). Other non-users expressed related

sentiments: New ICTs create new needs (FrN); they make you more available and create more mobility giving you less free time (ItN).

### Other concerns

Apart from the above, a further range of miscellaneous concerns were raised (more so by non-users of the two technologies) including:

- The fear of becoming like a robot because of ICTs  
*(M21) "I do not want to become a robot who just sits and pushes buttons. It is not a real life for me." (CzN1st)*
- Fears of ICTs replacing activities that people like doing (CzN)
- The threat that ICTs can modify users' lives without their being aware of it (ItN)
- Concerns that ICTs can be used to control people - for example, by increasing their availability after the working day and in leisure time. ICTs (the mobile phone especially) can give other people control over you, making you available when you do not want to be (EsN).
- The threat of not being able to control new technologies, partly because their development was too fast (FrN)
- Fears that they will not be able to keep up with the fast pace of development - particularly people aged 40 and above (Dutch report)
- Concern about a loss of privacy (EsN)
- Worries that children spend too long with ICTs in the home when they should be playing outside (NIB) - this also related to concerns that children were losing their creativity and imagination through using these technologies (Dutch report)
- Fears that ICTs threaten jobs (EsoM)  
*(M47) "ICT makes everything more effective. But on the other hand it makes some people redundant. Some people will find themselves with a great deal of leisure time and they will have to learn to use it. In the future you will have to learn the whole life through." (DkB)*

### Mobile telephones

Generally, the data show that there was more discussion of the mobile phone than the Internet. There is often a sense that the mobile phone has arrived while the Internet is still somewhat on the horizon. There is also a sense in the descriptions that mobile phone is more accessible, more functional than the Internet.

When considering the mobile phone there were four concepts that seemed to come up again and again in all the groups. These were the fact that the mobile phone was considered disturbing and that the device was useful for co-ordinating various aspects of one's life. Two other concepts that were also often discussed were that the mobile phone was also useful in emergency situations and, for some groups, that the cost of the device was still somewhat of a barrier. While the Internet is seen as a technology that is somewhat complex and also something that represents the future, the mobile phone was seen as being more accessible. These will be discussed following the "career path" outlined above. That is we will first look at the discussion of safety and

follow this with discussion co-ordination. Finally we will look at the themes of the mobile phone as disturbing and also concerns associated with the cost of the device. These latter two issues serve to illustrate the different sense of the device based on one's experience with them.

Among those without a mobile phone there was a lingering sense that the device was a status symbol. This opinion, however, was more difficult to find in the other groups.

### **Domestication careers for the mobile phone**

As alluded to in the introduction, the understanding of the various devices was different depending on the observer's experience. The material from the focus groups indicates that the non-users often had a different understanding of the technologies than did the more experienced users. When it comes to the mobile phone, this domestication career was seen in the contrast between the mobile phone for use in emergencies, a view often held by the non-users as opposed to the use of the device for social co-ordination. This latter notion was more common for those with broader experience.

As we have noted above security is often seen as a justification for the initial purchase of the device. Those without a mobile phone indicated that informants reported buying mobile phones for security in the evening or in isolated places (It, Es, Cz). In the words of an informant in the "mobile phone only" group

*"I take mobiles for granted nowadays. There is . . . no safety in the streets and you must be ready for unexpected events."*

The use of the mobile phone in emergency situations was often linked to driving and the use of the car. Informants spoke of being stuck in remote situations, breakdowns, car accidents and the like. A related function of the device was that one could call to family and friends while in transit to insure them that all was well, that is that one is not stuck, broken down or involved in an accident. In an echo of the work done by Rakow and Navarro, issues relating to safety and security were particularly important for women (1993). Moving to the more experienced users, there is a clear sense from the data that people use the mobile phone for co-ordinating and maintaining contact with others. This is almost exclusively for instrumental interaction and is seen in several ways. The mobile phone is used for arranging meetings.

*(M32) The mobile leads that now every meeting is confirmed at the last minute. With the mobile you can completely cover the day of commitments, appointments, events, ... without waste time. This is positive: you have much more freedom ... (ItB)*

Other informants noted using the mobile phone for the organisation of get-togethers with friends, particularly when there is a change in plans or traffic delays.

*'Somebody can give you a tip on where to go and meet others.' 'To let them know I'll be late.'* (CzB)

*(F32) "some years ago I programmed my meetings in advance but now I program them on line" (ItM)*

*(M18) "I'm in touch with my friends more. I can talk with them and co-ordinate better thanks to the mobile phone." (Male, 18)(CzB)*

(M25) *“I use it to organise meetings on line with my friends and in emergencies situations.” (ItB)*

Finally, the data show that it is also used for keeping in touch with others close to them and for co-ordinating family responsibilities.

*“Reachability seems to be the main reason to buy a cell phone: reachability for the family, the kids, when you move a lot”. (NIM)*

*‘We have two mobiles. If half of us are at the cottage, we can reach the others and find out whether or not they will join us’. (CzB)*

One can also see the progressive domestication of the mobile phone in that it allowed the informants to carry out several tasks at once. This was set into the context of being able to do several activities simultaneously. This was seen in, for example the combination of childcare and various job situations and other work and leisure/private activities.

As noted, this is largely an instrumental use of the mobile phone. One only rarely sees comments regarding the expressive use of the device. The data point to only some discussion of the expressive use of the mobile phone, that being in the Czech Republic and France. Here the mobile phone was described as a survival tool and were use to call friends when they are sad. Not surprisingly, the most discussion of this topic was in those groups with the experience of using the mobile phone. We have seen above examples of informants who used the mobile phone and SMS just “to say hello.”

(M37) *“My parents get fidgety if they can’t reach me on my mobile phone and they think I am ill.” (ItB)*

(F28) *“The mobile phone is useful to reassure my parents when I am out in the evening” (ItB)*

### **Mobile phone as disturbing in public places**

There were many comments in every focus group regarding the disturbing nature of the mobile phone. This topic was also that which often led to the most impassioned comments, particularly among the non-users. Those who used the mobile phone in public places were called boorish, rude, annoying and horrible. The comments of an informant in the “neither” group in the Netherlands illustrate this.

*“I was in the Bijenkorf [a big store in the Netherlands] elevator the other day. You already feel a little discomfort there. Where do you look? Mostly at the ceiling or one’s shoes. If in a situation like that someone then starts ‘chatting’ on his mobile, one feels even more discomfort. I thought: is that really necessary? And so did the others, we raised our eyebrows inquiringly.” (NeN)*

Various situations are mentioned as particularly sensitive. Churches, cinemas and restaurants often head the standard list. Busses and trains are also common situations in which the mobile phone is seen as disturbing. This issue is often put into terms of having to listen to the—sometimes-intimate—conversation of others. In addition, the various ringing tones were also mentioned as disturbing.

Reading across the various groups, one sees that the “neither” groups and also the “Internet only” groups took up this theme most often. Those without access to the technology were, in some sense, freer to criticise public use of the

mobile phone. They received no benefits from the technology and were exposed to the noise pollution of others. There is a difference in tone between the criticisms of the “neither” and the “Internet only” groups. The members of this latter group generally were strong in their criticisms. In every country there were informants in this group that held little back when condemning the mobile phone. They described the mobile phone as being intrusive, stressful, stupid and a contribution to noise pollution. A 36-year-old participant noted that mobile phone users do not plan their lives:

*(F 36) “If you have a mobile phone, the pointless phone calls you make are an indication that you haven’t planned your life very well. For example, if you make a proper shopping list, you don’t need to phone home from the supermarket.” (NII)*

Other informants noted various forms of stress induced by the mobile phone  
*(F53) “It is an attack when I am forced to listen to other peoples conversation” (DkI)*

*(F 68) “Stress is only being increased by telecommunications [mobile phones].” (NII)*

*(F 40) “Mobiles get on my nerves. It’s a pollution”(FrI)*

*(F 36) I often think: “Luckily I don’t have the mobile phone... I can’t bide the continuous ring of it. My husband’s mobile phone always rings” (CzI)*

*(M 38) “I do not want a mobile phone. I do not like the idea of being permanently available or of being continually disturbed.” (CzI)*

A 48-year-old male from the Dutch group brought up the issue of seeking status via the mobile phone.

*(M 48) “People with one of those things think they are very important!” (NII)*

Finally, there were several comments in these focus groups that summarised the use of the mobile phone at broader, less nuanced, levels. A 38-year-old man in the Czech group noted that:

*(M 38) “I can’t bear mobile phones at all.” (CzI) Male 38*

In addition, a series of informants in the Spanish group felt that the mobile phone was unnecessary and “stupid.”

*(F24) “My friends have one (mobile phone) by stupidity”. (EsI)*

*(F31) “My company gave me a mobile phone and I gave it to other person”(EsI)*

*(M41) “I have not mobile phone because I refuse having one”. (EsI)*

*(M26) “For who likes the stupidity, if he/she is happy, there is not anything to say. There are people who receive satisfactions from the mobile phone”. (EsI)*

Thus, in the Internet only group there was a broad register of issues cited when rejecting the mobile phone. While many of the respondents in the groups were positive towards the device (particularly in the Italian group) the Internet only groups stand out in terms of the strength of their comments.

By contrast, as one moves into those groups with more and more mobile telephony experience one sees that the theme becomes less important and it also seems to lose its critical edge. This is seen in the comments of an informant in one of the “both” groups in France.

*“It doesn't cause any more disturbance than a baby crying in a restaurant.”(FrB)*

Here one sees that rather than being a condemnation, it is more of a question of – perhaps slightly embarrassed – management of the device in public places. This finding fits into the general sense that there is an ideological career associated with the adoption and use of the mobile phone. That is, the non-users voice an irritation with the technology. They receive no benefits from the existence of the mobile phone and pay the price of the disturbance and noise pollution resulting from the mobile phone. By contrast, the material from the focus groups shows that the mobile phone users recognise the issue. Their comments however indicate that they see the issue more as an embarrassment that requires adroit social management as opposed to social condemnation.

### **Cost**

Finally, there is a certain amount of discussion regarding the cost of mobile phone use. In the context of those without a mobile phone this is often stated in the terms of being a barrier to adoption. This was particularly the case for the “Internet only” group. However, this theme was also current among those groups who already had experience with a mobile phone.

In summary, one is left with the sense that the general view of the mobile phone among the informants was that the device has established itself in European society, even though it is not equally welcome in all situations. The device has unquestionable advantages, i.e. in the case of emergencies. All the groups accepted this type of use. For those who are more advanced users, the device has found its place in the co-ordination of various everyday activities. It has allowed for what one might call the micro co-ordination of everyday life. None-the-less, the device is not seen as being on the same level as the traditional fixed telephone when it comes to the more expressive forms of communication.

### **The Internet**

The following comments cover the points made about the Internet which have not already been explored in discussions of time use, mobility and social networking

#### **Relation to the Internet: Those without home access**

In the various national groups which contained people who did not have access to the Internet at home, a number of participants nevertheless had, or had had, some contact with the Net (e.g. through work, through education). For others, the Internet was more vague<sup>36</sup> - they did not know what it was all about and there were some misconceptions:

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<sup>36</sup> Denmark was perhaps exceptional to the extent that many of those without access were familiar with the Internet - but this may in itself reflect the greater ubiquity of the Internet in the Scandinavian countries - as was noted in an earlier qualitative study in relation to Norway (Haddon, 1999).

(F50) *"I'm not sure, but all information available on the Internet is in English, isn't it?"* (CzN)

This lack of knowledge stands in contrast to the mobile phone, where even non-users were familiar with the principles of voice telephony.

Equally unlike the mobile phone, very few non-Internet users rejected the Internet in principle, in the sense of seeing it as a threat or potential invasion of their life. While the mobile phone raised emotions in this sense, the Internet did not. Admittedly for some the on-line world was not seen part of their life and might never be of use to them personally (FrN, EsN). Or the Internet was simply seen as not being useful for them (yet). Or else it was still considered to be too expensive for the benefits which it delivered.

However, a number of these those without access were anticipating going on-line in the near future while some others thought it inevitable that they would get the Internet at home over a longer time scale - even if they had no definite ideas what they would use the Internet for (NloM). Sometimes the attraction was very open:

(F58) *"I'm tempted by the Internet to increase my general knowledge"*  
(CzN)

### **Relation to the Internet: Those with home access**

In general, and as might be expected, those with home access had more knowledge of how the Internet worked and what you could do with it<sup>37</sup>. This is also reflected in the fact that these groups could spend far longer discussing the Internet, and making various observations about issues and potentialities.

Comparing mobile phones and the Internet, the groups with both technologies were divided over which technology they felt to be more important - in Italy, these groups tended to favour the mobile phone, but in some of the other countries the Internet was picked out as being more interesting, especially with arguments that it was more multifaceted than the mobile phone (CzB). Also:

(M31) *"It is the device that has the most potential"* (FrB)

In some cases these participants argued that the Internet had had more influence on their behaviour. While the mobile was an extension of the familiar home phone, the Internet had introduced new practices into their lives, enabling them to do things that they could not have done before (FrB). Indeed, for some it symbolised 'modernity' (FrB)

One Czech group living outside Prague was also sensitive to the way in which the Internet gave people living in small towns far from the capital city the chance to enjoy the opportunities to which inhabitants of large cities had more direct access (CzB)

But while most of these users had chosen access for more positive reasons, one acknowledged there was an element of coercion

*"There comes a time when you have no option but to use it. When everybody starts saying that you have to send in things electronically, you may wish to ignore them, but you can't. If that's what the majority wants, that's what you have to do."* (NlB)

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<sup>37</sup> For example, see the Italian report.

### Barriers to adoption

For some, though not all, of those without access, perceived cost was still a barrier to adoption (ItN, FroM, NIN, CzoM, NloM, CzN). In fact, non-users sometimes commented that they would go on-line if the overall cost of Internet access were to become cheaper (EsN, CzN)

Certainly compared to the mobile phone, the Internet was seen by non-users as requiring more effort (as well as more time, as noted earlier) in order to learn how to use the technology and how to integrate it into their lives (FrN, EsN, CzoM). So in this sense there was more of a technical barrier to adoption (NIN). One view was that for searching you needed to be an expert, and learning this skill involves investing some energy (EsoM). Also because it was necessary to learn to use a PC before going on-line, fear of computers could itself be a barrier to using the Net (EsB).

### Dimensions of the Internet

Generally people associated the Internet firstly with information rather than with communication - one image being that of an encyclopaedia (ItN), another being a universal library (FrN, EsB)

Many of those both with and without home access were positive about the benefits of accessing such information. The Internet was seen as making a range of information available (some of which had not been so accessible before) (e.g. ItoM, DkoM). And as noted in the discussion of time, this could also save time. Apart from e-mail, other on-line forms of communication through chat rooms, forums, clubs or multi-person games were mentioned less (except for NIB). In some groups these were mainly mentioned by some younger participants (e.g. FrB). In fact, even some Internet users were very critical of chatting in particular, because of the possibility of lies and insults (EsB). A few were creating their own web-sites (NIB)

Other examples of uses included following fashion (CzB) and getting cooking recipes (CzB)

*(F20) "Thanks to the Internet I stopped reading the paper versions of newspapers and magazines." (CzB)*

Meanwhile others used the Internet for 'research', not just for academic or business purposes but also to follow up hobbies or any other things that were of interest.

*(M23) "Thanks to the Internet you have access to information from all over the world. You can also be easily in touch with people of similar interests." (CzB)*

*(M29) "The information accessible on the Internet for researching is great. Besides, you can access debates on the Net and speak with people who are thousands of kilometres away from you and who are researching the same theme as you". (EsB)*

*(M32) "When you launch a problem on the Net, usually two or three people respond within a few hours". (EsB)*

Those without access tended to think of the Internet mainly in terms of more functional usage. Hence, it was mainly among those with access that we start to

find some talk of enjoyment. That said, there were exceptions, such as non-users talking about the Internet delivering film (DkN) and

(M50) *"I would like to listen music over the Internet"* (ItN)

(F54) *"I like the idea of having a quick look at distant places all over the world."* (CzN)

(F57) *"I would enjoy the relationships established through the Internet."* (CzN4)

Meanwhile one Spanish woman using the Internet at work was thinking about the possibility of using a webcam so that her parents would be able see her baby's birthday celebration (EsoM)

## **E-Mail**

E-mail had obviously become sufficiently widespread that even non-users were at least familiar with the name. A number could make some comments evaluating the facility. But once again, it tended to be the Internet users who had more to say about e-mail, including commenting about in what circumstances it could be useful.

When discussing e-mail, many of those both with and without access were very positive about this facility. One key link with the discussion of the mobile phone was that e-mails were seen as being non-invasive in contrast to public speaking on the mobile - and in this sense e-mails were compared to SMS.

However, people had a different reaction to the asynchronous nature of e-mail as already suggested in discussions of time use. For many, especially users, the fact that you could receive mail (i.e. check for mail) and reply when you liked was one of its key virtues.

(M25) *"E-mail makes it easier. You can answer, when it suites you. If I heard a sound every time I got a mail it would put me under stress."*

(DkB)

Indeed, some users had developed strategies to enhance the way in which e-mail could be used to control communication - e.g. one person not only answered when it suited him but he also would sometimes apologised to e-mail senders that the delay in answering was because he had not opened his mailbox recently (DkB). For others, perceptions of asynchronicity were changing with practice: immediate response by e-mail was actually considered to be a form of 'chatting', 'like talking' (NIB).

But for some (usually non-users) the asynchronous medium was seen as having disadvantages precisely because there was no immediate reply - unlike, say, when speaking on the telephone (CzN). In addition, some thought of e-mail as being somehow 'one-way' - either because they could not receive an answer straight away or perhaps also thinking of the one-to-many e-mails which are in effect 'broadcast' messages (e.g. NIN).

There was some discussion in several of the groups concerning the relationship between e-mails and letters, since both were textual messages. For many, including those without access, the concept of e-mail was easy to grasp as an extension of the familiar letter writing (and the practice of checking the post) Some differentiated the two or else evaluated each in terms of when they were more appropriate e.g. letters for romantic/emotional message, e-mails for urgent messages concerning more temporary matters.

*(M68) "A letter is a present, especially when it is hand-written. Very personal, somebody puts effort into communicating with you" (NIB)*

For others, either e-mail had replaced a certain amount of letter writing (EsB), or else encouraged textual communication where previously letter writing had been dying out

*"Now, I am more in contact with my family because before I felt lazy about writing letters" (FrB)*

*(M37) "In my opinion writing e-mails have allowed us to rediscover the pleasure of writing a letter..." (ItB)*

E-mail was also compared to telephone communication in some of the groups. For example, some of these participants felt that it was easier to get to the point without chatting when using e-mail (ItB). Some felt that awkward communications, such as cancelling an appointment, could be more easily managed by e-mail (DkB). You could even ask receivers to 'pass the word' in order to reach people without e-mail (ItB). And:

*(M47) "You have a better form of documentation with e-mails than with phone calls"*

But e-mails did have some disadvantages:

*(M36) "E-mail is anxiety-inducing. If it doesn't arrive, you fret" (ItB)*

For those receiving many e-mails, one problem was that they took time to read (DkN). Junk-mail, as well as the invasion of adverts and other messages, was also an issue for some (FrB)

### **Electronic commerce**

In fact, several of the groups without access were interested in the potential of the Internet in relation to shopping. So there was some discussions across both groups with and without access about the merits and drawbacks involved. Some preferred to shop in person (e.g. ItoM, ItB, CzB, DkB), sometimes because the Internet lacked the authentic excitement and personal involvement of real shops (CzB). Others appreciated that you could buy things more quickly (i.e. it was time-saving) and at lower prices over the Internet (CzB, NIN, CzB)

Some felt that the Internet was suitable for some buying goods rather than others (ItB). So there were some discussions of appropriate type of goods for on-line consumption (ItoM, CzB, CzB). For example:

*(M35) "I would consider purchases via the Internet with things where technical parameters are important, for example fridges or washing machines." (CzN)*

But also mentioned were CDs, computer games and books (CzB)

Meanwhile, one group differentiated daily shopping from shopping on the Internet for something special (FrB), while another referred to purchasing something on-line (as a default) if you could not find it elsewhere in the city (ItoM) or if in general they were rare goods that were less easy to find in the shops (CzB)

The security problems associated with giving credit card details on-line were mentioned in most groups. There had also been some negative experiences of getting damaged goods from ordering on the Internet and then having difficulties returning them (CzB). This led on to discussions of which of the on-line shopping sites were relatively more reliable:

*(F36) "I do Internet shopping with firms I've known for a long time. Then I reckon they must be credible." (CzB)*

But in order to avoid the problem of making the actual purchase on-line, others noted how the Internet was useful for providing pre-purchase information: i.e. for finding and comparing products on-line (NIN, EsB, CzB) but then buying them off-line (CzN). This could also save time (CzN, CzoM)

### **The domestication of the Internet**

Returning to the discussion of the domestication of ICTs, we can say that the understanding and use of the Internet was sometimes different depending on the participants' experience. In general, many non-users had a more limited knowledge of how the Internet worked and what it could do - although there were some clear exceptions. However, if we re-consider the stages of domestication discussed earlier, even some of these non-users were already imagining the Internet's potential role in their lives or, indeed, imagining acquiring the facility.

It would seem that the particular dimension where non-users shared some of the same interest as users, even if they had less experience, was in relation to electronic commerce. Conversely, having the Internet clearly does not necessarily make one a convert to home shopping (or chatting, for that matter), given that users could point to disadvantages equally well as those without Internet access. This underlines the point that since the Internet is multifaceted, not all its services are embraced equally. Parts, such as e-mail, may become domesticated and a routine part of everyday life, but other facilities can meet more resistance, or at least ambiguity.

### **Complaints and concerns**

There was a range of complaints about the Internet. One common one was that it was slow. 'Time' issues were the subjects of several interrelated complaints, as noted in the earlier chapter on this topic. In particular, the lack of order on the Internet made it difficult to look for information and wasted time. Hence there were calls for the Internet to be more organised and regulated (EsB).

There were still some technical problems with the Internet that could lead to frustrations:

*(M37) "When I do not succeed in accessing a web page I fly off the handle". (EsB)*

For some with access there had been a problem of dependency during the early phases of use and the sense of 'drowning in possibilities' because of an overload of information (CzB).

As noted in the discussion of social networking, there were concerns among a number of groups without access about the fact that time spent on-line could mean less time for family and social networks and that it could lead to isolation within the home. Those with access to the Internet had more mixed feelings on this issue

Children provided one motive for acquiring Internet access, but there were also particular concerns about children's appropriate usage (DkoM) and what they could access on-line (EsB). The solution was usually not seen in terms of

censoring material on the Internet but rather it was the responsibility of parents to monitor their children's use (e.g. EsB). Hence there was sometimes a concern at the lack of supervision of children using the Internet

On the other hand, there was some discussion about the growing importance of Internet literacy (DkB) and concern over the possible social exclusion of those not able to access ICTs. Therefore, it was important, for example, to develop user-friendly interfaces to make the Internet more accessible (FrB)

### **Perceptions of the future**

Although we have seen that some groups showed a certain amount of resistance to ICTs because they were seen as threatening to their way of life, there was only one Spanish group that did not actually want any more technological advances - its members already had enough to do when coping with today's technologies (EsM)

The more common response, even among those groups without the mobile phone and the Internet, was to expect the broader use and acceptance of new ICTs.

Many thought that it would become more and more necessary to learn how to use ICTs since almost everyone would employ the technologies (EsN). Indeed, some people were already being forced to learn to use more ICTs, particularly because of the labour market (CzN)

Finally, some the Danish groups made particular points about the regulation of future ICTs. One group (DkM), while being generally positive about the future development of ICTs, nevertheless thought some rules might be necessary

Another (DkB) noted that technological advances would continue but that the innovations were still new for many people. Because of that routines and ethics concerning use have not yet developed. Hence, there was a need for an ethical discussion of future use

### **Direct analysis of the informant's comments**

When considering the analysis of the future uses material was more open. The two general types of taxonomies that suggested themselves were first the type of technology that was being discussed and secondly the motif. Thus, the comments were generally sorted into comments regarding the various technologies, i.e. the PC, Internet, mobile telephones, e-commerce,<sup>38</sup> videophones etc. The motifs regarding future uses played on other issues in the minds of the informants. Themes such as ease-of-use, isolation, the potential to create contact, and privacy arose from the data in various forms. This set of categories was coded and will be described below.

### **The range of technologies**

There were 25 various technologies discussed when considering future uses of ICTs. Aside from the screen refrigerator, which was an introduced topic, the most commonly discussed topic was the Internet. In addition to simply naming the Internet, the reports discuss various aspects of the net such as e-mail, e-commerce, web phones and various transport technologies such as ADSL and

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<sup>38</sup> E-commerce and e-mail are, technically speaking, sub categories of the Internet. However, as a popular phenomenon they have their own unique identity.

cable modems. The other technology that received broad comment was the mobile telephone.

Looking beyond these topics there were a broad range of items and technologies named in the reports. These ranged from well established technologies such as answering machines, ISDN and fax machines to those that are just now arriving on the scene, such as flat screens, speech recognition and WAP to those that are still somewhat in the future, i.e. fixed/mobile convergence and ADSL. Finally, there were some more fanciful technologies such as tele-transport.

When looking into which group was most active in suggesting various technologies, the data show that the group use had both Internet and a mobile phone suggested far more different technologies than the other groups. When comparing the various countries the data show that it was the Italians with both the Internet and a mobile phone that suggested the greatest number of different technologies.

### **Coming technologies.**

Before looking into the specific technologies at some depth it is worth filtering the analysis for those technologies that are on the point of being adopted into society at the moment. There were 25 various types of technologies that were named in the material resulting from the focus groups. As noted above these ranged from those that were well established and perhaps on their way out, i.e. the fax, to those that are far beyond the focus of current research activities, i.e. tele-transport.

There were, however a set of technologies that are on the point of commercialisation and adoption. These include the e-commerce, convergence of fixed and mobile telephony (FMC), DVD, flat screen technology, gene manipulation, chip implantation, speech recognition, WAP and Web TV. These nine technologies are now beginning to become common. Some of them are still in the pre-commercialisation stage, i.e. FMC while others are already commercialised and being adopted, i.e. DVD and speech recognition. Some of these technologies may never become commercialised, i.e. Web TV. None the less, this set describes those technologies that have completed the development process and are at some early point in their adoption cycle.

Overall these technologies represent only a small portion of all the discussion. The data show that as with the future use of technology in general, the group that had both the net and a mobile phone were the ones that were perhaps most oriented towards the technologies that are now coming on line. They were the ones that named the most number of technologies. Where the other groups name one or two of the technologies, this group names almost all of the technologies that are in the process of being adopted by society.

### **The Internet**

Turning now to the Internet and the mobile phone, the data show that the Internet was one of the most popular points of discussion in the various focus groups. While one must realise that the Internet and the mobile phone were

defined as major themes in the interview guide, it is interesting that the Internet was seen so often as a “future” technology.

Following from the “career development” perspective outlined above, it was common for inexperienced respondents to see the Internet as more of an information source than as a way to contact others. It was, for example, called an encyclopaedia (IT1). This is a theme that we will touch on below.

When viewing the Internet as a “future development however, the groups were concerned about the cost of using the Internet, the development of “have nots,” social isolation, issues of privacy and also security. As we saw in the discussion of the social network, the Internet’s capacity to isolate one from one’s near milieu was a common notion among those who did not have the Internet. For example,

*(F42) "Chat might result in lot of contact with the more distant people, but you do not get in closer contact with people around you." (DkoM)*

French and Italian informants from the groups with only mobile telephones had similar comments. An experienced user noted:

*(F30) "There was a period where it was difficult for me to get off the Net. So every day when I came home I had to turn on. If it had continued I would have used it too much and skipped it. It is important to me to be able to control the use. Some of my friends could not control their use and have no longer access to the Internet." (DkoI)*

When considering the implementation of the Internet into European culture, this aspect may be significant. The sense that the near family and the near milieu are important is perhaps stronger in Europe than in the US where residential mobility is more common. Thus, while the mobile telephone is a technology that allows for stronger interaction within the immediate social group the Internet seems to cut in another direction, at least in the popular imagination.

Aside from the issue of isolation, that of cost was rather common. The data show that this issue was shared by several of the groups, both those with experience and those without.

### **The mobile phone**

When discussing the mobile phone as a future technology the data show that it was the “Internet only” group that took up this theme most often. Specifically, the Danish group was particularly active in this discussion. This group noted that they would be interested in a mobile phone if the price was equal to that of a fixed telephone, if one’s life style changes and particularly if one had children and if the functionality of the device was enhanced.

In general the data seem to indicate that the informants, including those who do not have a mobile phone, were comfortable with the technology. There is little discussion of broader moral issues such as isolation or the mechanisation of society when considering the mobile phone. Rather, barriers to the technology seem to be associated with cost and the desire for more functions in the device, i.e. day planners, e-mail functionality, larger memory, better batteries etc. In addition, the adoption of the mobile phone will likely be conditioned on the further acceptance of its use in public places.

There was little spontaneous discussion of the integration of the Internet and the mobile phone as imagined in the various G3 technologies (WAP, GPRS and UMTS). This was not a theme in the focus groups. Thus, the fact that it did not arise of its own accord indicates that these technologies have not entered into the public imagination.

### **The screen refrigerator**

In order to elicit insight into the informant's willingness to adopt new technology the last three focus groups were presented with material describing a "Screen fridge" that has been developed by Electrolux. The device has all the normal functions for a refrigerator. In addition, it has a touch screen mounted on the upper part of the door that allows one to communicate with others via e-mail or video mail,<sup>39</sup> surf the Internet, maintain an inventory of what is in the refrigerator and make suggestions as to recipes based on the current contents of the refrigerator and finally, provide one with a TV and a radio receiver or security monitor

On the positive side, several informants welcomed the device and saw it as an example the new potentials that lie in technology. It was noted that the device could help one manage the routine repetitive tasks of deciding on what to prepare and help in the actual preparation of meals. Beyond that a 28-year-old Italian man in the "neither" group was generally positive to the device and said "I would like also suggestions about diet and about what can I buy with a certain budget." Informants in both the Danish and the French "Net only" groups thought that it would be attractive if the device could also order food for the home." Other comments from the Italian "Net only" group were that it would be good if one could "personalise" the device to reflect individual preferences.

There were many comments that expressed scepticism towards the device. A central issue when discussing the screen fridge was that the informants discussed the skill associated with the production of food as opposed to its automated production. While on the one hand making food can be a tiresome repetitive operation issue, on the other hand, it is also a craft that requires imagination, schooling and dexterity. If one follows this thought for a moment, cooking and food production is perhaps one of the last true crafts practised in the home on an extensive basis. Home decoration, the production of clothing and indeed the very construction of the home have been crafts practised by the members of the family. These have generally been replaced products purchased in the marketplace.

Thus, food making represents one of the last skills in which some people take pride and through which people express their identity and their care giving.

Various devices such and the microwave, the freezer, and, in its time, the refrigerator itself, have changed the effort needed to produce food.

Nonetheless, food production is still a craft. It combines providing for a physical, human need and the presentation of a product to be literally consumed by others. It is unlike cleaning and other housework in that it results in a physical artefact.

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<sup>39</sup> A "virtual" key board" has been installed on the touch screen.

Given this context, many of the informants noted a desire to control their own food making. In the words of a 48-year-old Danish man in the “both” group “*Nobody shall tell me what to do.*” A 31-year-old male informant in the French “both” group reacted to the shopping list function on the refrigerator and the suggestion automatic food delivery. He noted that he enjoyed shopping. It was a chance to meet friends and to select the raw materials that were interesting and unique.

Some respondents thought that the screen fridge would restrict creativity and others brought up the issue of national identity. In this connection, one woman said:

*(F55) “It is unsuited to the Danish lifestyle. It is based upon a reactionary family view. It sounds very American – I guess the refrigerator will be very big. The Danes want fresh raw material for their cooking. We don’t need big refrigerators.” (DkB)*

In a similar vein, the report from one of the “both” groups in France noted that food selection; cookbooks and cooking are a central element in the French culture. Rather than calling food production a craft, she took it to the height of “almost an art.” As such the use of technology has to be seen in a different perspective. To the degree that the task is mundane and repetitive it is ok to use technology. However, technology’s use in the production of art is another matter.

Finally, we make two observations regarding the screen fridge. First, in several cases, the discussion regarding food preparation quickly rose to an ideological level. The unexpected combination of ICT and a mundane, but craft intensive aspect of life exposed certain pre dispositions. In effect, it seems that the informants were forced to take stock of their ideas and ideological dispositions regarding food production. Unlike much of the discussion of traditional ICTs in everyday life, the placement of the technology into an unexpected context rendered their thoughts about how, in this case, food production should be carried out.

The second observation is that the preponderance of the comments focused on the food related aspects of the device. There was little or no comment regarding the use of the device as a communications central for the family. Based on this, it may be possible to suggest that the introduction of an electronic communications centre into the kitchen is not problematic. On the other hand, it may be that this function of the device so far from the informants’ notion of their everyday lives that they have difficulty understanding the concept.

## **General conclusion**

### **The general impacts of time use, mobility and social networking on the adoption of ICTs**

To be developed

## The domestication of ICTs

Turning now to the theme take up in the introduction, we introduced the notion that users go through various phases in their adoption of technologies. In rough terms, one becomes cognisant of the technology, matches it to their needs and based on this evaluation; either adopts or rejects the technology. For those who adopt it, their use often grows to encompass the imagined functions and, eventually, other types of functions.

Thus, one can speak of a consumption career for both the mobile phone and the Internet. Looking first at the Internet, many of the non-users conceived of the system as being mostly a general source of information. The potential for communicating with others via e-mail and “chat” were not mentioned among the non-users.<sup>40</sup> This changes, however, with the more experienced users. In those groups there was abundant discussion of the use of e-mail. Thus one sees a transition in the perception of the Internet between the users and the non-users. The data indicate that one goes from seeing the system as largely a source of information to seeing the system as both an information source and a communication channel. A development that might be somewhat in the future is trusting the Internet to the degree that one is willing to purchase goods and services through it.

There is a similar trend in the understanding of the mobile phone. While the specifics are different, one can trace a shift in the understanding of the system. Non-users see the redeeming value of the system, as being is use in emergency situations and as a type of security. In addition to this, more advanced users see the technology as being a way to co-ordinate everyday life. Beyond this one can suggest that the system may come to be used for expressive interaction.

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<sup>40</sup> To be fair they did discuss the ability to communicate with others but not in terms of the specific technologies.

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## **Appendices**

### **Interview guides**

#### **Interview guide 1**

Ask the bureau to use 10-15 minutes to conduct some creative exercise, which according to their experience will stimulate interaction. This creative input may vary between the countries due to cultural differences. Lajla and Richard need to know which one has been performed in your group, so send this together with the 1<sup>st</sup> and 2<sup>nd</sup> order analyses at the end of each interview-week. Remember to go through the hypotheses with the moderator

#### **Introduction**

Conductor, recorder and expected time

Description of both the moderator and the recorder. Participants represent only themselves and they will be anonymous. It will take about two hours. The bureau/moderator know how to do these things but remember: Open discussion - free run to allow interaction between the participants. Ask further questions to stimulate and develop the concepts they are talking about. It will be good if there are conflicting views.

Purpose of the focus group interview: To gain insight into changing patterns in everyday life which influence your use of ICT (information and communication technologies)

Explain the point of the focus group. (The investigations of changes in mobility in everyday life, interaction with social networks and the organisation of time and the impact of telecommunications and electronic devices on these areas of everyday life.) The interaction between participants and the associations they make between their ideas are both important

Presentation of participants

What is your name, your job? (Simple demographic questionnaire including age, gender, residence type, leisure time interests, possibly including experience with ICT) (The moderator starts the introduction. He/she sets the example for the type of things we want to know)

#### **Mobility**

Some people claim that mobility has increased in society. (e.g. Travel to and from work, meeting friends outside the home, delivering children to various activities, traveling on holidays and visiting the family)

What are your experiences?

Probe: How does this effect your daily life?

To what extent can you choose how much you travel, and where?

Probe: To what extent are your movements routine like going to and from work and to what extent are they spontaneous like walking around in the city or taking a trip to the beach

What does this mobility mean for your communication with others?

Probe: Do you find it more difficult to stay in touch with family, friends and colleagues?

Probe: What does it mean for co-ordinating with other people?

Which kinds of ICT are useful for staying in touch and in which circumstances do you use them?

Probes: How do you use this technology? Has it been easy to learn how to use the new devices and services?

Probe: What do you think about people who walk around and chat on a mobile? Do you like it yourselves?

Probe: When and where should one switch off the mobile telephone? Why?

### **Time pressures**

Some people say that it is difficult to find time to take care of all the things that they have to do.

Do you sometimes have this experience and if so what is it that causes this?

Moderator: Answers should focus on co-ordination and communication issues.

Probe: Do you have flexible working hours and sometimes work at home? If yes, does this make the way you organise everyday life easier

Probe: Does any work you do at home take away attention from you family? - Or does it give you more time to spend with your family?

Probe: Have you tried to save time by buying something via the Internet? Why?

What is your experience of organised leisure activities (sports and other organisations)., Do you spend a lot of time on your own activities outside work? (or on your children's activities?) And do you enjoy it?

Probe: Has leisure time declined or do these leisure activities lead to time pressures

Probe: Do you want to be reachable during these leisure time activities?

All in all, do telecommunication and electronic devices contribute to time pressures or do they help you manage them?

Probe: How do you regard e-mails: As an easy form of communication or as leading to an overload of information?

Probe: When do you use the Internet? For what purpose?

Have time pressures influenced your interest in getting and using telecommunication and electronic devices?

### **Social networking**

Family: Some people say that staying in contact with one's family is becoming more important.

Do you feel this is true in relation to the members of your household? Your other relatives?

Probe: How important is it to be available for your family?

Probe: How do you keep in touch with your family?

Probe: Do you like to chat (by fixed telephone, by mobile phone, on the Internet)?

Is it easy or difficult to co-ordinate or organise family get togethers?

Probe: What is the role of telecommunication in maintaining contact with your family? (mobile telephone, the Internet, SMS)

Probe: What do you think about teens having mobile telephones?

Friends and colleagues

Does the way you communicate with your family differ from your communication with friends or colleagues?

Probe: Frequency, style, duration and content

How important is it to be available for your friends? - for your colleagues?

Probe: Do you give your telephone/mobile phone number to everybody? Why? Do you sometimes switch off your mobile? Why?

All in all, do telecommunication and electronic devices help you keep in touch with friends?

Probe: Which devices do you use and in what situations? (mobile telephone, the Internet, SMS)

Probe: Do you like to chat with friends and colleagues?

### **Future Services**

Now we have focused on changes in everyday life with regard to mobility, time pressure and social networking.

Are there other changes in your everyday life which are influenced by technological development or which affect your use of ICT?

What do you think are the driving forces that might lead to the acceptance and use of new technologies?

Probe: Needs/Necessity? It is fun to use? Luxury? "I will always try new technology?"

How do telecommunications and new electronic devices effect society?

Probe: Do they lead to isolation, more interactions, more access to information, more fun? Why do you think so?

How will new technology affect your personal life?

Probe: Will it affect the equipment you have in your home if the TV and PC merge together, so you could access the Internet on your TV?

Probe: What about telephoning via the Internet, where you would be able to see the person you talk to?

Probe: Is there a technical development that you are looking forward to or you would like to see happen?

Will the use of telecommunication and electronic devices continue to increase? Should there be limits to their development?

Probe: What about devices that enable you to monitor your kids when you are not at home, or your elderly parents?

Probe: What kind of ethical and moral issues do you think that it is important for the developers to think about?

## **Interview guide 2**

*Ask the bureau to use 10-15 minutes to conduct some creative exercise, which according to their experience will stimulate interaction. This creative input may vary between the countries due to cultural differences. Lajla and Richard need to know which one has been performed in your group, so send this together with the 1<sup>st</sup> and 2<sup>nd</sup> order analyses at the end of each interview-week. Remember to go through the hypotheses with the moderator*

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Presentation of participants

What is your name, your job? (Simple demographic questionnaire including age, gender, residence type, leisure time interests, possibly including experience with ICT) (*The moderator starts the introduction. He/she sets the example for the type of things we want to know*)

Moving around and travelling

Some people claim that extent to which we move around has increased in society. (e.g. Travel to and from work, meeting friends outside the home, delivering children to various activities, travelling on holidays and visiting the family)

What are your experiences?

**Probe:** How does this effect your daily life?

**Probe:** To what extent can you choose how much you travel, and where?

**Probe:** To what extent are your movements routine like going to and from work and to what extent are they spontaneous like walking around in the city or taking a trip to the beach

What does this mobility mean for your communication with others?

**Probe:** Do you find it more difficult to stay in touch with family, friends and colleagues because of having to move around and if so in what ways?

**Probe:** How does it affect your ability to co-ordinate activities with other people?

If you have had problems because of moving around, have ICTs or particular facilities helped, or could they help, to overcome such problems?

**Probes:** In which circumstances have they been or could they be useful (e.g. thinking of mobile phones and the Internet in particular)

What do you think about people who chat on the mobile phone in public (i.e. not just walking around)?

**Probe:** Do you like it yourselves?

**Probe:** When and where should one switch off the mobile telephone? Why?

Time Use

Have you noticed whether during the last five to ten years the time you are do various things have changed? For example, do you have different working times, is some of your work done at home, do you go to bed at a different time, do you eat later or earlier or you use your evenings differently?

What is the reason for such changes?

**Some people say that it is difficult to find time to take care of all the things that they have to do.**

Do you sometimes have this experience and if so what is it that causes this?

*Moderator: Answers should focus on co-ordination and communication issues.*

**Probe:** Do you have flexible working hours or do you work at home? If yes, does this make the way you organise everyday life easier? How? Do you personally desire to be able to have this kind of flexibility?

**Probe:** Does any work you do at home create problems and if so what are they (e.g. less time spent with the family, socialising with friends)? - Or does it give you more time to spend with your family? (E.g. you don't use time on transport that day, you might chat with your children and not your colleagues during coffee break - and you are there, at home!)

Has leisure time declined or increased and why do you think this? Do you spend a lot of time on your own leisure activities outside work? (Or on your children's activities?) And do you enjoy it?

**Probe:** What is your experience of organised leisure activities (sports and other organisations), do leisure commitments themselves lead to time pressure - if so could you explain how?

**Probe:** Do you mind other people contacting you during leisure time? When is it acceptable and when not?

Have time pressures influenced your interest in getting and using telecommunication and electronic devices?

**Probe:** Do mobile phones (or would they) ease or contribute to time pressures and if so how?

**Probe:** Do e-mails ease or contribute to time pressure (or would do so) and why?

**Probe:** Have you tried to buy something via the Internet or are you interested in doing so? Why? (e.g. it might save time or be regarded as time-consuming)

**Probe:** Is there any other aspect of the Internet that would ease or contribute to time pressures (how) or do you already feel too busy to use Internet facilities?

**Probe:** All in all, do telecommunication and electronic devices contribute to time pressures or do they help you manage them?

Social networking

There has been much discussion of changes in society which might have a bearing on the way we keep in touch with family, friends, neighbours and others. (Examples include discussions of contact with elderly parents, the effects of divorce, the changing nature of our contacts with the community)

**Probe:** What are your experience of these types of changes?

In your experience, are family members likely to move in their own separate social circles of friends and acquaintances?

[‘Social circles’ may be academic - each national group must think how best to translate this]

**Probe:** For those that do have separate networks, does this have a bearing on how they keep contact with these circles (e.g. is it more complicated).

All in all, how do telecommunications and electronic devices help you to keep in touch with others?

**Probe:** Have new technologies made any difference to how you communicate?

Future Services

Now we have focused on changes in everyday life with regard to mobility, time pressure and social networking

#### **FOR GROUPS WITHOUT THE MOBILE PHONE**

Are there developments that would make you consider acquiring a mobile phone?

**Probe:** What change in your circumstances might make you consider acquiring a mobile phone?

**Probe:** What changes in the product might take place might make you consider acquiring a mobile phone

#### FOR GROUPS WITHOUT THE INTERNET

Are there developments that would make you consider acquiring Internet access?

**Probe:** What change in your circumstances might make you consider acquiring Internet access?

**Probe:** What changes in the product might take place might make you consider acquiring Internet access?

#### FOR GROUPS WITH A MOBILE PHONE

What changes might make you use the mobile phone differently?

Are there any circumstances when you would stop using the mobile phone?

#### FOR GROUPS WITH THE INTERNET

What changes might make you use the Internet differently?

Are there any circumstances when you would stop using the Internet?

Exercise relating to the ICTs that have been mentioned in the discussion

The moderator compiles a list of the ICT products that the participants have already mentioned they use earlier in the discussion - and reads the list now for the participants

Then ask each participant:

For you, which of these are the least useful now and so would be the one that you would be most willing to give up?

**Probe:** Why this one? What are the advantages and disadvantages of these products

**Probe:** What could you improve about the one product that you want to get give up so that you would continue using it?

Exercise relating to the Screen Refrigerator - Explain this exercise is to allow them to think about very different future products

The moderator gives a brief outline of the concept of the 'Screen Refrigerator'

#### **Internal communication**

Screenfridge is a communication central where family members can communicate with each other either using e-mail

or video-mail. A touch of a button is all it takes to record a video message and post it to another family member. instead of using a traditional keyboard, we have installed a virtual keyboard using the touch-screen on the fridge.

#### **External communication**

In addition to sending video messages to family members, you can also use the Screenfridge to send and receive e-mail. Family members have their own mailbox where both e-mail and video messages are stored. And yes, you can surf the web too.

#### **Food management**

Food management deals with how to store, handle and prepare food.

Screenfridge makes food management easier. By providing recipes suitable for food stored in the fridge and tips on how to store food correctly you gain valuable information how you best handle your foodstuffs.

#### **News, radio and home security**

Screenfridge is also equipped with a TV and radio receiver. Just imagine getting rid of that bulky tv-set in the kitchen and watching the morning news directly on the fridge instead. You can also connect surveillance cameras to you fridge to monitor your back yard or maybe your newborn.

**Digital cook book**

Screenfridge also features a powerful cookbook with hundreds of recipes.

Would this be a useful product for you?

**Probe:** Why or why not?

The use of telecommunication and electronic devices will continue to increase? Should there be limits to their development?

**Probe:** What kind of ethical and moral issues do you think that it is important for the developers to think about?

**Thank you for participating**

**Country reports**

**Czechia**

**Denmark**

**France**

**Italy**

**The Netherlands**

**Spain**