

The Information Society in Europe:

Methods and Methodologies

Final Deliverable
The European Media and Technology in
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EMTEL - General preface

The European Media Technology and Everyday Life Network (EMTEL) was funded by the European Commission (grant number HPRN ET 2000 00063) under the 5th Framework Programme. It was constituted as a research and training network within the programme, Improving Knowledge Potential and oriented towards “creating a user friendly information society”.

EMTEL conducted interdisciplinary social scientific research and training between 2000 and 2003. This report is one of 12 submitted to the EU in September 2003 as final deliverables for the project. Copies are available on www.lse.ac.uk/collections/EMTEL and a full list of the publications can be found as an Appendix to this report. Contributing partners were as follows:

- ASCoR, The University of Amsterdam
- COMTEC, Dublin City University
- IPTS, Seville
- LENTIC, The University of Liège
- Media@lse, London School of Economics (co-ordinating centre)
- NTNU, University of Trondheim
- SMIT, Free University of Brussels
- TNO, Delft
- SINTEF, Trondheim.

EMTEL sought to bring together young and experienced researchers in a shared project to investigate the so-called information society from the perspective of everyday life. It undertook research under two broad headings: inclusion and exclusion, and living and working in the information society. It then sought to integrate empirical work and developing theory in such a way as to engage constructively with on-going policy debates on the present and future of information and communication technologies in Europe.

Roger Silverstone

EMTEL Co-ordinator

Introduction

Young researchers across seven research centres have conducted individual studies under the common methodological framework of the EMTEL Network, mainly based on qualitative methods and methodologies. However, contrasted approaches have been adopted depending on the various theoretical and disciplinary backgrounds of the different researchers and centres. Those approaches were determined by specific choices based around current literature about methodology and the different theoretical and research questions raised in each project. This report is intended to highlight the specificity of the EMTEL methodological framework and present a critical summary and analysis of the various methodological approaches and emergent debates surrounding the methods and methodologies used within the Network.

The following sections will present:

The methodologies and methodological positions of the different researchers in relation to the literature used for their study of the Information Society in Europe, as well as the diversity of the research process;

The methods used for data collection and analysis as well as the methodological themes or debates that emerged from the research process within the Network.

The implications of EMTEL methods and methodologies in terms for European innovation policy.

Methodological positions adopted within EMTEL

The EMTEL research reflects common concerns in continuity with the methodological tradition favouring an in-depth understanding of the Information Society in Europe through qualitative and everyday life approaches of ICT use. The everyday life and “user-centered” perspective is the first and probably the main methodological position

the various research projects conducted within EMTEL. This methodological choice, which claims for research focused on the users in their everyday life and on informal processes is also related to a second position focussing on the users’ potential to influence innovation processes and the social construction of technology and media. Then, a third and more radical position suggests a critical approach of fixed categories beyond usual boundaries in the study of the Information Society in Europe.

Everyday life and the user

The everyday life perspective is present in the various EMTEL projects through their investigations of everyday and informal processes related to ICT use. The choice of a “user-centered” approach is more specific to the SMIT, NTNU-STs, COMTEC and LENTIC KEY DELIVERABLEs, which explore ICT use and users in everyday contexts. This perspective on ICT in everyday life is in continuity with research areas on domestication (Lie and Sorensen, 1996; Silverstone, 1994), social construction of technology (Bijker and Law, 1992; Chablat, 1994) and research on ‘human agency’ (Loader, 1998; Wyatt et al., 2000), where the research focus is the user and not the technology.

‘The SMIT KEY DELIVERABLE’ bases its methodological approach on the notion of domestication. Domestication describes and analyses the capacity of families, individuals and households, but also other institutions, to make new technologies (and services) their own, to integrate them into their everyday lives. Skills and practices have to be learned in order to deal with ICTs, while meanings are constructed in the same —dialectical— process. The aim of this project in such a perspective is to understand what ‘user-friendly’ means in the context of an Information or Network Society. In the same direction and following exemplary empirical studies within Science and Technology Studies (STS) and Cultural Studies, the NTNU-STs project is also in line with what is called a ‘people-centered’ instead of a ‘technology-centered’ approach to the exploration of use of ICTs (Anderson and Tracey, 2001).

‘The COMTEC KEY DELIVERABLE’ also addresses everyday processes and follows new research directions focused on the interplay between local/global and public/private spheres in understanding the shaping of Internet media (Castells, 1996, 2001). Since the domestic environment, or household, has emerged as a fruitful area of study, in terms of the Internet’s imposition and negotiated position in this private environment (Silverstone, 1994, 1996, 1999; Lie and Sorensen, 1996), this research is about users and the way in which they shape the Internet media in their everyday life and examines the way in which that meaning is constructed within the domestic environment. It also investigates the way in which that construction of meaning can extend into public forums, rendering the boundaries between public and private difficult to distinguish. Since, the purpose of the research is to explore what domestic Internet users ‘do’ with their media and how

they construct it as meaningful in the existing network of everyday life, a qualitative approach has been adopted, which prioritises the perception of the user. Similar approaches have been used by Smith and Bakardjieva (2001) where research concerning Internet consumption and the domestic environment sought to explore 'behaviour genres' that were established in relation to Internet media and their meaning within the domestic context.

Similarly, the rupture of the LENTIC project with common online gathering methods that concentrate on online interactions or behaviours (Jones, 1999) or gathering methods using Computer-Mediated Communication for the analysis of online contents (Mann and Stewart, 2000) makes it possible to explore experiences and motivations that lead ICT users to develop or not different forms of social behaviours or 'virtual togetherness' (Bakardjieva, 2003) in their everyday life. This everyday perspective targets ICT users, which appropriate a PC and/or Internet on various ways in specific contexts related to training and working experiences.

On another hand, through their specific focus on informal processes such as sub-politics and diasporic media constructions, 'the ASCoR-TNO KEY DELIVERABLE' and 'the LSE KEY DELIVERABLE' also participate in this everyday life perspective. The first one explores what is the role of the Internet in terms of organising transnational social movements, in terms of mediating (online) civic engagement and in terms of influencing the political process. Based on the context of the crisis of democracy, the project explores the relationship between ICTs and sub-politics and tends to a deeper comprehension of the impact of ICTs on informal and/or formal political processes and participation. The LSE project also tends to highlight a number of areas, where everyday and informal processes relating to media cultures and ICT appropriation have a role in challenging exclusion and furthering inclusion of those populations in the local, the national and the transnational spheres.

The social construction of ICT

The second methodological position is directly related to the first one but suggests going one step further in the understanding of the user's potential of appropriation. The Social Construction of Technology and Media, cultural studies and research related to consumption and appropriation processes constitute the main theoretical backgrounds that are used in the SMIT, IPTS, COMTEC and LENTIC KEY DELIVERABLES.

The SMIT project recognises a significant shift in the process of innovation from production to consumption. The user's use and understanding of technologies are seen to have consequences for the design and production of these technologies. Especially important is also the interpretation and integration of the technologies in the user's life contexts. Information and Communication Technologies (ICTs) —with both material and symbolic significance— and the social consequences of their use are the focus of this approach.

Second, if the entry point for the IPTS study consists of monitoring and analysis of the supply side of new technologies, it also raised reflections —inspired amongst others by the various Emtel studies and Emtel Network debates— on the potential social and user implications of Ambient Intelligence (AmI). The study tries to link insights from social and user studies of new technologies to the research and development of new technologies. It therefore envisages encompassing both technology trends and social/user trends and argues for studying new technologies in their social and economical context. The study is thus also inspired by the theoretical approach of the social shaping of technologies and the social construction of technology (Bijker et al., 1987; Bijker and Law, 1992), and suggests a critical perspective on AmI in the tradition of Technology vision building and technology foresight.

Finally, the 'localised' study presented in 'the COMTEC KEY DELIVERABLE' has been developed from perspectives which also emphasise the 'social shaping of technology' (SSOT), where the user is perceived to take a dominant role in defining the nature, scope and functions of the technology. This approach aims to question discourses surrounding technological determinism, where technology is perceived to develop independently of society, having a subsequent impact on societal change. This perspective not only has resonance at an academic level, but also at a wider European and policy level. In the same direction, 'the LENTIC KEY DELIVERABLE' also emphasises the users' potential in appropriating ICT for their constructions of inclusion or exclusion trajectories in the European Information Society.

Beyond boundaries, towards critical research

Some EMTel projects suggest more critical approaches and question the reference to usual boundaries in the study of the Information Society. In this direction, their methodological position underscores the limits of traditional dichotomies and suggests thinking critically

about usual and fixed categories. The NTNU-STs, COMTEC, ASCoR-TNO and LSE KEY DELIVERABLES clearly suggest this kind of critical approach of boundaries between work and home, re- and deterritorialising practices, human and non-human beings, public and private, local, national and transnational spheres.

First, if the boundary between work and home is object of research, 'the NTNU-STs KEY DELIVERABLE' refuses to take its existence and location as the point of departure. Studies about the use of ICTs at the work place or at home are at risk to presume a division that might not be applicable at all. This is particularly evident if we consider that the heavier use of ICTs involves access both from the home and the work place. During the course of this study the main instrument, the thematic interview guide, even had to be adjusted because it still assumed in some cases too clear a line between home and work, which rendered the respective questions meaningless. The whole of everyday life comprises work and non-work. Even in cases of a clear separation between both domains, which are rather exception than normality (Nippert-Eng, 1996), the exact location of the boundary may change over time or be disputed constantly. Therefore, usual restrictions like the exclusive study of 'ICTs at home' or 'ICTs at the workplace' are not applicable.

Second, if this project explores re- and deterritorialising practices and their mutual relation, then every kind of social relation has to be taken into account. The isolation of mediated communication and its careful examination let alone the sole interest in one of these communication technologies, say the Internet, would miss the point of the mutual impact different forms of communication have on each other.

Third, inspired by the 'agnosticism' of actor-network theory (Latour, 1993 [1991]) an a priori division between technology and non-technology is also avoided in this project. That and how technologies are shaped and embedded in social practices has been demonstrated in numerous contributions. However, the existence and whereabouts of the boundary between social and cultural 'interpretation of technology' (Bijker et al., 1987) and its materiality as technology sui generis is still disputed. Actor-network theory draws the most radical conclusion in declaring this boundary as non-existent, treating objects, institutions, and humans as equals. One has not to subscribe to this 'principle of symmetry' between humans and non-humans in order to harvest its virtues for an exploration of technologies in everyday life. The openness gained by the adaptation of this kind of agnosticism as point of

departure enables the careful systematic search for the meaning of boundaries between the social and the material in everyday life.

Further, the exploration of boundaries between private and public spheres is a specific focus of ‘the COMTEC KEY DELIVERABLE’ since the research sought to examine not only perceptions and constructions of meaning relating to Internet media within the home, but also the ways in which domestic Internet use facilitate participation in public forums. The ethnographic approach to the research allowed an in-depth and rich exploration of the way in which users in a specific locale use the Internet to facilitate communication with in public forums. The ethnographic approach provided a clear picture of the way in which domestic Internet users balanced the relationship between management of the Internet within the home with movement into the public sphere.

Finally, the critical approaches of the ASCoR-TNO and LSE KEY DELIVERABLEs vis-à-vis transnational processes are developed in relation to a specific methodological approach based on a combination of various methods and on a thematic analytical framework. In ‘the ASCoR-TNO KEY DELIVERABLE’, this analytical framework addresses the transnational character of the organisation, as well as the way ICTs are being used—both within the organisation and beyond. As such the degree of transnationalisation relates to the focus of the organisation on a local (national) or transnational (international) level. Besides this the degree of interaction —virtual and real-life— is assessed, not only internally but also externally. The project also looks at the degree of interaction of the organisation with its members/participants (both on a national and international level), with other organisations (inter) and with the outside world (extra), online as well as in the real world. This transnational approach is also part of the cross-European project presented in ‘the LSE KEY DELIVERABLE’, which aims at mapping the different diasporic experiences of cultural exclusion and inclusion in local, national and transnational spaces.

Various “entry points” around converging perspectives

In order to summarize the various contributions and methodological positions of the EMTEL Network and to illustrate the diversity of the research processes, the different projects may be located on various stages of a same continuum, reflecting various “entry points” or research focuses that are addressed through the three main methodological positions of the Network:

Table 1: Different “entry points” of the EMTEL Network

IT Design Or development	Specific contexts of use	Project Management	Impacts on Social Processes	
IPTS KD	LSE KD	ASCor- TNO KD	Lentic KD	SMIT KD NTNU-STS KD

The different research focuses may be viewed as many different “entry points” to address potential relationships between different themes or to question one specific area in itself under the framework of the different methodological approaches. This means that, starting from a particular point of view, some projects question other stages of the continuum and investigate, through one or several methodological approaches, potential relationships between different focuses; while other projects investigate one specific area using the same or different methodological approaches. For instance, since AmI refers to

a vision of the future Information Society rather than being a current or past reality, the IPTS research is to be situated early in the study of the ICT innovation process or design. But the objective of the IPTS project is also to identify and to detail major challenges and bottlenecks for AmI in everyday life and to raise relevant social and ethical questions to be taken into account for bending the trend towards AmI. This is done through the perspectives of the social construction of technology and the investigation of the relationship between two different focuses: IT design and social implications of ICT use. As for ‘the LSE KEY DELIVERABLE’, it addresses social implications of minority media and technology use through a critical analysis of specific European contexts beyond usual boundaries between the local and the global. ‘The LENTIC KEY DELIVERABLE’ also starts from an analysis of one specific focus —projects management— to address social implications in individuals’ everyday life through a constructivist approach of ICT. On another hand, ‘the ASCoR-TNO KEY DELIVERABLE’ addresses one specific focus —organisational usages of ICT in specific social movements— to understand political strategies of such organisations. The SMIT, COMTEC, NTNU-STS KEY DELIVERABLEs mainly focus on social use of ICT and directly address social implications of ICT from an investigation and

in-depth analysis of everyday use. Furthermore, the COMTEC and NTNU-STTS KEY DELIVERABLES combine two different methodological approaches: a first one favouring a deep understanding of users discourses and behaviours giving a high reliability to their influence on the construction of ICT; a second one recognising the blurring of boundaries.

The way that the different projects address and relate the various stages of the continuum, is also related to the types of relationships between the various research focuses. Those relationships are either empirical or hypothetical. In the first case, ‘the NTNU-STTS KEY DELIVERABLE’ analyses re-territorialisation practices related to ICT use through the empirical investigation of individual stories; ‘the SMIT KEY DELIVERABLE’ and ‘The COMTEC KEY DELIVERABLE’ also investigate ICT use in everyday situations in order to understand social consequences of such usages, and ‘the LENTIC KEY DELIVERABLE’ investigates ICT-based projects and individual appropriation of ICT in everyday experiences for analysing social implications of ICT. On another hand, ‘the IPTS KEY DELIVERABLE’ questions ‘potential’ social implications of Aml from a prospective analysis of IT development and therefore is rather based on hypothetical relationships. Therefore, the construction of empirical or hypothetical relationships may in some extent be related to the choice of methods and methodologies to address the “entry point” to the research. Without encouraging any kind of generalisation, one may observe that the three projects, which directly address social implications of ICT use, also adopted ‘empirical’ approaches of their research focus through such methodological tools as in-depth interviews, participant observations, or case studies. On another hand, the projects investigating IT developments or specific contexts of ICT use rather adopted methods of mapping or desk research through a critical perspective in order to raise ‘potential’ challenges or implications for everyday life.

Methods and emerging debates within EMTEL

The EMTEL Network is representative of the area of qualitative research about the Information Society. As already stated in the first chapter of this report, this research area is related to the everyday life and “user-centered” perspective, to the social construction of ICT and to critical approaches of usual boundaries in the Information Society. In such perspectives, qualitative research also means a strong articulation between data collection and analysis methods, as well as a close interaction between the researcher and the data. The first following section illustrates the different methods used within the Network. The second one discusses series of themes or debates, which have emerged from the different projects.

Methods used within the EMTEL Network

The first method used in the Network is desk research. This is especially the case of the AmI project. Indeed, since ‘the IPTS KEY DELIVERABLE’ is dealing with a possible future of ICTs in society, the social and user trends are coming from reflections and educated guesses rather

than from observed qualitative or quantitative current-day trends. The specific methodological focus of the study consists therefore of a critical engagement with the discourses and claims that are developed in the AmI vision building process and in AmI RTD projects and policies. The discourses, scenarios and AmI roadmapping activities provide the ‘texts’ to be read and analysed. These ‘thick descriptions’ are the main empirical material for this research. The analysis method is a kind of discourse analysis, which aims at decoding the kind of society that is envisaged with AmI and the underlying vision of users. Data were collected, as a result, primarily via desk research. Desk research is also used in other projects as a secondary method to identify theoretical and empirical trends related to the various research topics, for instance in the SMIT and ASCoR-TNO KEY DELIVERABLEs.

The second type of method used within the Network is made of semi-structured or in-depth interviews processed through qualitative content analysis, comprehensive or discourse analysis. Two projects used individual interviews as a main approach to the research focus, namely the SMIT and NTNU-STs KEY DELIVERABLEs, while the LENTIC project conducted individual interviews as a main approach to one of its targeted groups and as a second approach to other groups concerned by two case studies.

The SMIT project performed a qualitative study of individual young adult users based on semi-structured interviews conducted with students. Ideally, these interviews would have been conducted by the researcher herself. Thanks to language issues, local students were given the task to perform semi-structured interviews with young adults between 18 and 25 years of age. They each had to do one so-called self-interview and six others. All interviews, which represent nearly 550 semi-structured interviews, were recorded and later transcribed by the students. In order to limit this number, the two largest identifiable groups of interviews —81 self-interviews and 117 non-student interviews (together 198

interviews)— are the basis for the analysis in the project overall. The software NUD*IST was used to aid the analysis, since it allows to classify qualitative research material according to self-created categories. The self-interviews formed the first part of the analysis. Another part was carried out by the main researcher and consisted of a qualitative content analysis. A discourse analysis (not part of the original plan of the project, but one that emerged out of the lack of an adequate theoretical methodological framework for the analysis of the youth and new media relationship) proved to be very informative and helped to further structure the interview analysis in its later stage.

The NTNU-STS and LENTIC projects contrast with the high number of interviews realized in the SMIT project as the first one is based on 20 and the second one on 41 in-depth interviews. The NTNU-STS interviews were carried out in Trondheim, Norway (12 interviews) and Darmstadt, Germany (8 interviews). Methodologically one central aspect of this study is the proximity of researcher and research objects since the EMTEL Network is one of the numerous efforts undertaken by the bodies of the European Union to encourage mobility among its citizens, more particularly among academics and researchers. Participants in Trondheim were recruited through emails sent to all participants of the language summer school 2001 and to non-Norwegian employees of a large Norwegian research institution, and through snowballing. In Germany snowballing, personal contact through the dean's office and emails sent to ERASMUS students were used to recruit participants. The interviews, if possible, were conducted in the office of the respondent, which provided additional observational data recorded right after the interview. The main researcher carried out preparation and analysis of the data. Thus, through the steps of the interview itself, the transcription, the repeated steps of writing summaries, and finally the write up, he achieved intimate and comprehensive knowledge of the material.

The LENTIC interviews were conducted among unemployed and physically disabled people in relation to two specific case studies (see further), as well as among people aged over 50 as a third group of people targeted in the research design. The group of ICT users aged over 50 were recruited through the so-called 'snowball method' and are mostly retired people. They were asked to explain how they adopted and appropriated (or not) different aspects of ICT over time and in which fields of everyday life. The aim was to re-construct their experience of ICT and inclusion through their individual trajectories and their own meanings. The content of those individual interviews, as well as of the two other groups, was processed through a comprehensive analysis based on a thematic re-transcription of

their discourses, structured around the main topics emerging from the interviews themselves. This analysis focused on usages and representations related to their appropriation of ICT in various spheres of everyday life and their inclusion or exclusion experiences. On the basis of this thematic and comprehensive analysis, interviews among the three groups of interviewees were comparatively analysed in order to identify different main appropriation modes associated with various representations of ICT and inclusion.

Beside this individual method of interview, interactive workshops were used, namely in the IPTS project, as a primary data input to enhance the interpretative analysis of the report. This method came from another project (see <http://esto.jrc.es/>) on the Science &

Technology Roadmapping (S&TRM) of Ambient Intelligence in Everyday Life (AmI@Life). S&TRM is one of the methods used in prospective studies and consists of the mapping, in a graphical way, current and future technological developments and is used for displaying and synthesizing networks of past, present and future stages of S&T developments. During those workshops, experts discussed the issues, functions, technologies and roadmaps for AmI@Life.

Thirdly, ethnographic methods such as participant observation, semi-structured interviews or local media analysis have been used in the COMTEC project in combination with online research tools such as web-based contents analysis, online survey or interviews. This project is thus based on offline and online ethnographic data and interviews with domestic Internet users carried out between January 2001 and January 2002 in a small coastal town in North County Dublin. This ethnographic approach has involved participant observation in organisations and groups, 23 semi-structured interviews with households, a survey of 250 houses in Coastal Town, examination of local newspapers and community related information. The analysis provides details of participants use patterns and some of the ways they chose to appropriate the Internet in the home.

This combination of online and offline methods has also been used in the ASCoR-TNO project as a way to perform case studies. Namely, this project conducted online survey, hermeneutic web-analysis, content analysis of webforums, discussion mailinglist and webpresence, and combined them with other methods in one analytical framework. Instead of looking at a single issue in-depth, this project explored the triadic relation between transnational social movements, ICT use and civic engagement. The techniques used comprise a mix of a documentary desk-study, online methods and in-depth interviews of

key people involved in the civil society organisations. For instance, the degree of transnationalisation and virtualisation is determined through an analysis of the webpresence of the different organisations, and its different functions, in terms of informing, mobilising, space for discussion, networking, etc.

This analytical tool —case study— has also been used in the LENTIC and LSE projects to respectively compare translation processes in the case of ICT-based initiatives and diasporic media cultures throughout European countries. The first project refer to this method as a main approach to the fieldwork, while the second one used it as a part of a wider methodological frame based on a transnational approach.

The fieldwork of the LENTIC project consists of two main cases selected among European funded initiatives in Belgium. In each case, data were collected through in-situ observations, key-actors interviews, and documents to gather material on the projects management; and through in-depth interviews with participants to get material on agency and appropriation aspects. Following some studies in this field (Akrich, Callon and Latour, 1988, 1991), cases were analysed through a retrospective content analysis of documents given by both organizations; interviews among key-actors and in-situ observations contributed to a retrospective analysis of interactions between different categories of actors. The content of individual interviews with participants was processed through a comprehensive analysis focused on usages and representations related to their appropriation of ICT. They were also processed through an analytical thematic framework, which helped to identify in the different cases influences and interrelations between individual experiences of participants and their collective experience in both initiatives.

The transnational fieldwork of the LSE project was explored through cross-national research, namely through the use of mapping and comparative research based on data from national reports and case studies. In choosing the method of mapping European media cultures, the research concentrates on the width of the cultural experiences of exclusion/inclusion rather than on their depth. This mapping is based on a combination of different methods. The first method of data collection has been that of the national reports. A number of 13 national reports corresponding to an equal number of EU member-states were produced by scholars across Europe. The scholars were recruited through an existing and expanding academic network. All EU member-states are represented, apart from France and Luxembourg. Nevertheless, there are two case studies from France, as well as an

extensive map of minority publications in France. As those reports were conducted by scholars living (or who have lived) in each of those countries, they offered an insider's perspective, which is desirable to comparative research (Livingstone, 2001.). In order to gain an understanding of the diverse spatial positioning of diasporic groups and a more qualitative comprehension of the specificities of diasporic experience and media cultures, the study have drawn from a series of case studies either produced for this project or referred and drawn from as secondary sources. Then, the researcher pursued two objectives in analysing ranging data. The first is to map diverse diasporic presence and communication across the EU, and on the other, to develop an analysis of the qualitative dimensions of diasporic media cultures. The second kind of analysis is theme-based and focuses on some key themes emerging from the data (both in the national reports and the case studies). The combination of the national reports and the case studies enabled spatial triangulation of the study—in the local, the national and the transnational—and methodological cross-examination—the quantitative and the qualitative, the depth and the extent of media cultures.

Emerging themes and methodological debates

The different projects reflect the diversity of the methodological debates that have been raised within EMTEL. Different concerns and choices may be presented through some emerging methodological themes, which were identified by the researchers themselves, as well as during EMTEL meetings and discussions.

A first emerging theme or methodological question is the variability in the use of qualitative methods and the way that quantitative dimensions may intervene in qualitative research. This concern is particularly relevant in 'the SMIT KEY DELIVERABLE'. Indeed, on the empirical side, two particularities of this study were a) the high amount of qualitative data produced (ca. 550 semi-structured interviews) and b) the use of young adults themselves to actually carry out parts of the research. For a qualitative study, the number of interviews produced was simply too large to be properly analysed (it became a qualitative project with a quantitative touch). The question then arose how to select from the given numbers of interviews. In the end, an approach was chosen that was meant to keep an element of randomness (i.e. the two largest identifiable groups of interviews were chosen for further analysis). The question of how to deal with such a large number of qualitative research material has not finally been answered. Thanks to the young adults themselves performing the interviews, they turned out to be rather diverse both in style and focus. Thus the breadth

of research material produced (and the often surprising outcomes) was an advantage, but proved difficult for the further analysis. Each interview had to be read entirely individually, but nonetheless compared to others as well. The performance of the interviews by the researcher herself could have eased that problem. The combination of critical discourse analysis and empirical material seemed fruitful and avoided the pitfalls of the reliance on one methodology. In contrast but also in line with concerns raised in the first project, 'the NTNU-STS KEY DELIVERABLE' is based on a more radical choice that refuses assumptions such as the existence of fixed boundaries (between the material and the social, work and home, work and non-work, co-presence and distance), which itself is a conjecture about the object of research, and as such is producing a certain kind of results. Therefore, the researcher is following Donna Haraway (1991) here, who advocates a 'perspective from the margins' and the focus on the confusion of boundaries and their construction. From this perspective the task is to describe categories acknowledging the dialectics of stability and change, and, in the project, it allowed a 'strictly' qualitative approach of individual discourses and behaviours through the selection of a limited number of research subjects.

A second concern emerging from the Network is the relationship between the real and the virtual. 'The COMTEC KEY DELIVERABLE' not only examines the construction of the public and private spheres, but also investigates the way in which users inhabit and traverse the real and virtual realms in an attempt to organise and manage domestic and public life. This approach follows that of Miller and Slater (2000), where their ethnographic study of the Trinidad and the Internet allowed the emergence of a fascinating, rich and highly analytical account of the way in which 'Trini' people had not only used the Internet to supplement their existing behaviour patterns and routines, but also challenged the notion that the online and offline or real and virtual spheres can be separated and perceived as independent entities. This perspective implied the use of online and offline ethnographic methods.

The EMTEL project as whole participates in the debate denouncing the false dichotomy between the virtual and the real. In this direction, the methods used within EMTEL may be related to some studies on virtual and real life communities such as Bakardjieva's paper (2003) where the author criticizes the distinction between both kinds of communities and argues that "the so called 'real life' communities are in fact virtual in the sense that they are mediated and imagined" (Bakardjieva, 2003, p.4). Following such studies, EMTEL projects also suggest that virtual life "cannot be studied and characterized exclusively by what is

produced online as the cultures enacted online have their roots in forms of life existing in the ‘real’ world” (Bakardjieva, 2003, p.5). As such, the methodological approaches of the EMTEL Network contributes to the evolution of methodologies for studying the Information Society, towards the investigation of ICT use as an embedded part of users’ everyday life, and suggests a new way of thinking about technology and media as routinely incorporated into everyday life.

Finally, a third emerging theme addresses concerns about comparing data or contexts, and more generally the reliability of comparative studies. The most significant approach in this debate is the transnational perspective adopted in the LSE cross-national study. A second interesting approach is the contextual perspective on ICT use combined with the analysis of everyday experiences in ‘the LENTIC KEY DELIVERABLE’ and the organisational perspective on transnational social movements in the ASCoR-TNO project.

The LSE project is mainly based on mapping, a methodology that learns from the strengths and weaknesses of cross-national comparative research. On one hand, it aims at recognising themes and significant relations across geographical areas expanding our understanding of social phenomena (Blumler et al., 1992) and on the other, it surpasses the main limitation of cross-national comparative research that considers the nation-state as the most significant unit of analysis (Livingstone, 2001). The project proposes a cross-European analysis, which takes into consideration the national context, but also the local and the transnational. The analysis of data offers a descriptive mapping of cultural and media diversity, and a qualitative/interpretative analysis, which focuses on a series of emerging themes.

Alternatively, the LENTIC and ASCoR-TNO projects suggest another approach, which is also based on comparative concerns but through a contextual approach of users and everyday experiences, on the one hand, and an organisational perspective, on the other hand. In the first one, different types of contextualized results —description of political aims and their translation into both cases, evaluation of success/failures indicators of the projects, comprehensive presentation of individual discourses— are compared in two different ways. First, the analysis of each case is compared to individual stories of their participants in terms of convergence/divergence of interests and social impacts in less abled’s everyday life. Second, both cases and individual results are compared to each other in order to identify convergence and divergence points between the two initiatives, in terms of translation processes and social impacts, and between the two different target groups in terms of construction of ICT inclusion potential. The two types of comparisons —within

each fieldwork between collective and individual aspects and from one fieldwork to another between the two cases and the two groups— is an attempt to integrate individual, organizational and contextual factors in a transversal analysis of ICT social implications and to overcome potential limits of a juxtaposition of specific cases or data. Therefore this comparative analysis was not used in the sense of a cross-national or cross-cultural comparison, but rather in cross-sectional terms through a small-scale comparison of specific cases and individual discourses. As already stated, the ASCoR/TNO project also follows a similar approach as the different selected cases are comparatively analysed with regard to organisation, civic engagement and the political. Different issues are addressed on each of these three topics, which required the adoption and use of different methodological designs for each topic.

Conclusion: methodological challenges for EU innovation policy

The various methodological approaches developed within the EMTEL Network are all illustrating concerns about the investigation of ICT in everyday life through qualitative research, either from hypothetical questions or empirical observations. Thanks to this specific background, EMTEL methods and methodologies may contribute to the development of methodological supports for the design of EU policies.

Global observations and quantitative trends —for instance, IT development stages, ICT penetration rates within households, individual access to ICT, number of public e-services, security of system infrastructures, etc.— are a first step in the development of a structured knowledge about the Information Society. EMTEL suggests other kinds of measurements rather based on qualitative indicators of well-being, inclusion/exclusion, citizens' participation, domestication, etc. Combining such an in-depth knowledge about everyday and informal processes with existing indicators may help policy-makers avoiding misinterpretations of social processes and over-estimating the ICT potentials for social, cultural or economic developments. In this effort to overcome the use of bounded categories or fixed boundaries, the EMTEL research suggests a specific approach claiming for a knowledge-based policy, and a better understanding of European citizens' everyday life and use of ICT.

The EMTEL project orientated all its efforts towards giving reliability to qualitative research as a way to contribute to social analysis and construction of policies. The combination of offline and online methods, namely used in the COMTEC, ASCoR-TNO and LSE KEY DELIVERABLEs, is a first way to increase the reliability and transferability

of qualitative results. In the same direction, investigating cyberspace in relation to social contexts illustrates a new concern in studies of the Information Society. Namely, the distinction between the real and the virtual is not taken for granted anymore and is used through the different research projects as a challenge to understand social and everyday processes around ICT. This everyday perspective also leads to a re-conceptualisation of

comparative research and the development of new comparative methodologies, moving from studies based on a juxtaposition of national observations to cross-national and cross-sectional analysis of individuals, groups and organisations in various European contexts.

Those various constructions of methods and methodologies in the investigation of the Information Society as well as the combination of different methods around converging methodological concerns also reflect the “user friendly” orientation of the EMTEL Network. This is clearly its most important contribution in terms of analysis and suggestions for further research in the Information Society: it claims for an investigation of the Information Society going beyond rhetoric and insuring a higher predictability of ICT research and theories.

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Appendix 1: EMTEL Deliverables

Final Deliverables

- Brants, K. and Frissen, V. (2003) 'Inclusion and Exclusion in the Information Society', University of Amsterdam (ASCoR) and (TNO Strategy, Technology and Policy)
- Pichault, F. and Durieux, D. (2003) 'The Information Society in Europe: Methods and Methodologies', LENTIC, University of Liege and ASCoR, University of Amsterdam.
- Preston, P. (2003) 'ICTs in Everyday Life: Public Policy Implications for Europe's Way to the Information Society.
- Punie, Y., Bogdanowicz, M., Berg, Anne-Jorunn., Pauwels C. and Burgelman, J-C. 'Living and Working in the Information Society: Quality of Life in a digital world', IPTS-JRC, European Commission, Sevilla; Centre for Technology & Society, Norwegian University of Science and Technology, Trondheim; SMIT, Free University of Brussels
- Silverstone, R. (2003) 'Media and Technology in the Everyday Life of European Societies', [Media@lse](#), London School of Economics and Political Science.

Key Deliverables

- Berker, T. (2003) 'Boundaries in a space of flows: the case of migrant researchers' use of ICTs', NTNU, University of Trondheim.
- Cammaerts, B. and Van Audenhove, L. (2003) 'ICT usage among transnational social movements in the networked society', ASCoR/TNO, University of Amsterdam.
- Durieux, D. (2003) 'ICT and social inclusion in the everyday life of less abled people', LENTIC, University of Liege and ASCoR, University of Amsterdam.
- Georgiou, M. (2003) 'Mapping diasporic media across the EU; addressing cultural exclusion', [Media@lse](#), London School of Economics and Political Science.
- Hartmann, M. (2003) 'The Web Generation: the (de)construction of users, morals and consumption', SMIT-VUB, Free University of Brussels.
- Punie, Y. (2003) 'A social and technological view of Ambient Intelligence in everyday life', IPTS (JCR-EC), Seville.
- Ward, K. (2003) 'An ethnographic study of internet consumption in Ireland: between domesticity and public participation', COMTEC, Dublin City University.