

KATHOLIEKE UNIVERSITEIT LEUVEN
FACULTEIT SOCIALE WETENSCHAPPEN
DEPARTEMENT COMMUNICATIEWETENSCHAP

Media on/Family off?

An integrated quantitative and qualitative investigation into
the implications of Information and Communication
Technologies (ICT) for family life.

Promotor : prof. dr. K. Roe

Proefschrift tot het verkrijgen
van de graad van
Doctor in de Sociale Wetenschappen
aangeboden door
Veerle VAN ROMPAEY

2002

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2002

De verantwoordelijkheid voor de ingenomen standpunten berust alleen bij de auteur.

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To all of you, for being a continuous source of inspiration.

To Marc Godon, for reading this PhD cover to cover.

*To my mother, father, Bart, Fielip, Annelies, Tim & Marlies
for unconditionally supporting my passion.*

To Luca, Elena, Niels and Bart for sharing my passion.

Media on/Family off ? An integrated quantitative and qualitative investigation into the implications of Information and Communication Technologies (ICT) for family life.

Summary

In a documentary about the importance of television for family life, one father explains: *'When I turn on the television set, it's just as if family life gets switched off.'* This statement reflects a public concern that has recently shifted from the television set to ICT in general, whereby the emphasis mostly lies on the detrimental effects that ICT have on family life. The premise seems to be that a media appliance causes family life to change dramatically when it is switched on, implying that family life is more normal and perhaps even better when this appliance is switched off. In order to investigate the true impact that ICT have on family life, a theoretical framework was developed based on the application of Family Systems Theory in the field of communication research.

Furthermore, an integrated quantitative and qualitative research design was developed based on a 'MultiSystem-MultiMethod' approach. In a first stage, computer assisted telephone interviews were conducted with a representative sample of Flemish families (n=965). On the basis of ICT density, families were then divided in three different family types: traditional, intermediate, and multimedia families. On the basis of this family typology, 38 families were selected for a qualitative study involving unstructured in-depth family interviews. An analysis of these 38 interviews indicated that different research techniques and a smaller sample size were in order. Especially, if we wanted to come to a better understanding of family's psychosocial structure. Therefore, the sample size was narrowed down to ten families, presented as case studies, and a psychosocial research design was employed.

First of all, the research results indicate that families customise ICT in order to fit their family theme. Therefore, inside the boundaries of this family theme, ICT are capable of influencing family's psychosocial structure. Furthermore, the analysis of the ten families indicates that the family context changes, not only as a result of changes in family life cycle, but also due to changes in the ICT structure. As such, it is better to state that ICT use is not mediated by a family context but is embedded in family dynamics and as such is able to have implications for family life. This leads us to conclude that ICT use is a reflection of general family functioning.

Media aan/Gezin uit ? Een geïntegreerd kwantitatief en kwalitatief onderzoek naar de gevolgen van Informatie- en Communicatietechnologieën (ICT) voor het gezinsleven.

Samenvatting

In een documentaire over de plaats die televisie inneemt in het gezinsleven zegt een vader het volgende: *'Als ik de televisie aanzet, is het juist alsof het gezinsleven uitgeschakeld wordt.'* Deze uitspraak geeft uiting aan een publieke bezorgdheid die recent verschoven is van de televisie naar alle ICT. De nadruk van deze bezorgdheid ligt op de schadelijke effecten die ICT hebben op het gezinsleven. Er wordt dan vooropgesteld dat een mediatoestel zorgt voor dramatische veranderingen in het gezinsleven wanneer het aangeschakeld wordt. Dit impliceert dat het gezinsleven normaal of zelfs beter is wanneer dit toestel niet ingeschakeld is. Om de ware impact te kennen van ICT op het gezinsleven werd een theoretisch kader ontwikkeld. Dit is gebaseerd op de toepassing van de Familie Systeemtheorie op het veld van het communicatie-onderzoek.

Verder werd een geïntegreerd kwantitatief en kwalitatief onderzoeksdesign ontwikkeld dat steunt op de 'MultiSysteem-MultiMethode' aanpak. In een eerste fase werd een telefonische survey afgenomen bij een representatieve steekproef van Vlaamse gezinnen (n=965). Op basis van hun ICT dichtheid werden deze gezinnen dan onderverdeeld in drie verschillende gezinstypes: traditioneel, intermediair en multimediaal. Aan de hand van deze typologie werden 38 gezinnen geselecteerd voor een kwalitatieve studie bestaande uit diepte-interviews met het hele gezin. Een analyse van deze interviews gaf aan dat de toepassing van verschillende onderzoekstechnieken op een kleinere steekproef een vereiste was. Zeker om meer inzicht te verkrijgen in de psychosociale structuur van de gezinnen. Daarom werd de steekproef teruggebracht tot tien gezinnen, gepresenteerd als case studies, en werd een psychosociaal onderzoeksdesign toegepast.

De onderzoeksresultaten geven aan dat gezinnen ICT aanpassen aan hun familie-thema. Daarom zijn ICT, binnen de grenzen van dit familie-thema, in staat om de psychosociale structuur van een gezin te beïnvloeden. Daarenboven blijkt uit de analyse van de data dat de gezinscontext kan veranderen niet alleen door veranderingen in de levenscyclus van het gezin maar ook door veranderingen in de ICT-structuur van het gezin. Daarom is het beter te stellen dat ICT-gebruik niet gemedieerd wordt door de familie-context maar eerder dat het ingebed is in de gezinsdynamiek en zo in staat is gevolgen te hebben voor het gezinsleven. Dit leidt tot de conclusie dat ICT-gebruik een reflectie is van het algemeen functioneren van het gezin.

Médias « allumés »/ Famille « éteinte » ? Une recherche intégrée, quantitative et qualitative, sur les implications des technologies d'information et de communication (TIC) pour la vie de famille.

Synthèse

Dans un documentaire sur l'importance de la télévision pour la vie de famille, un père explique : « Lorsque j'allume la télévision, c'est comme si la vie de famille s'éteint ». Cette déclaration reflète une préoccupation publique qui vient de se déplacer récemment du poste de télévision vers les TIC en général, accentuant les effets nuisibles des TIC sur la vie de famille. Le point de départ du débat est que l'emploi de médias engendre un changement radical de la vie familiale, impliquant que la vie de famille est normale voir même meilleure quand les médias sont éteints.

Pour enquêter sur le réel impact que les TIC ont sur la vie familiale, un cadre théorique a été développé basé sur l'application de la « Family Systems Theory » dans le domaine des recherches en communication. En plus, une structure de recherche intégrée quantitative et qualitative a été développée basée sur une approche multisystème-multiméthode. Dans un premier temps des interviews téléphoniques ont été faites sur un échantillon représentatif des familles flamandes (n=965). Sur base de la densité des TIC présentes, les familles étaient alors divisées en trois différents types: familles traditionnelles, intermédiaires et multimédias. Se basant sur cette typologie familiale, 38 familles ont été sélectionnées pour une étude qualitative comprenant des entrevues non-structurées et approfondies avec les familles. Une analyse de ces 38 interviews indiquait que des techniques différentes de recherche et un échantillonnage plus restreint étaient opportuns. Ceci, spécialement lorsqu'on voulait avoir une meilleure compréhension de la structure psycho-sociale de la famille. Pour cette raison, l'échantillon a été réduit à 10 familles, présentées comme des cas d'étude, et un plan de recherche psycho-social a été utilisé.

Tout d'abord, nous avons constaté que les familles adaptent les TIC à leur 'thème' familial. Pour cette raison ces technologies sont capables, dans les limites du thème familial, d'influencer la structure psycho-sociale de la famille. En plus, l'analyse de ces 10 familles indique que le contexte familial change, non seulement suite aux variations dans le cycle de la vie familiale, mais aussi suite aux changements dans la structure des TIC. C'est pour cela qu'il est préférable de déclarer que l'utilisation des TIC n'est pas influencé par un contexte familial, mais est incorporée dans la dynamique familiale et est aussi capable d'avoir des implications dans la vie de famille. Ceci nous conduit à conclure que l'utilisation des TIC est en fait un reflet du fonctionnement général de la famille.

INTRODUCTION	1
PART 1: THEORETICAL BACKGROUND	3
1. <i>The impact of Information and Communication Technologies on family life.</i>	3
1.1. The early years : Children and television.	3
1.2. The shift: Family television.	4
1.3. The expansion: Families and the changing media environment.	6
1.3.1. The changing media environment.	6
1.3.2. Young people, new media.	7
1.3.3. Families in the changing media environment.	8
1.4. Summary and conclusions .	9
2. <i>Applying Family Systems Theory to the study of media use at home.</i>	12
2.1. Introduction.	12
2.2. Basic assumptions of Family Systems Theory.	13
2.2.1. Systems can only be understood as wholes.	13
2.2.2. Non-linear causation.	14
2.2.3. The family as an open social system.	14
2.2.4. The family and its environment.	16
2.2. A Family Systems approach to the study of media use at home.	17
2.2.1. Goodman’s perspective.	17
2.2.2. Jordan’s perspective.	19
2.2.3. Silverstone, Hirsch, and Morley’s perspective.	20
2.2.4. Discussion: The path to a theoretical framework.	23
2.3. Summary and conclusions.	27
3. <i>Theoretical framework: Exploring the system.</i>	29
3.1. The family: What’s in a name ?	29
3.2. The core theoretical model.	31
3.2.1. The ICT structure of the family.	32
3.2.2. The psychosocial structure of the family.	33
3.2.2.1. The family theme.	34
3.2.2.2. Internal relationships.	35
Patterns of separateness and connectedness.	35
Dealing with significant biosocial issues of family life.	38
3.2.3. Spatial organisation and temporal structuring.	40
3.2.3.1. Spatial organisation.	42
3.2.3.2. Temporal structuring.	43
3.3. The socio-demographic structure of the family.	46
3.3.1. Family members characteristics.	46
3.3.1.1. Age	46
3.3.1.2. Gender	48
3.3.1.3. Socio-Economic Status	49
3.3.2. Family characteristics.	49
3.3.2.1. Family size	49
3.3.2.2. Life-cycle	49
3.3.2.3. Family home lay-out.	50
3.4. Summary and conclusions.	50
4. <i>Theoretical framework: Exploring the supra-system.</i>	52
4.1. The relationship between the system, other systems, and the supra-system.	52
4.2. Exploring the supra-system: The family environment.	53
4.3. Exploring the supra-system: The social context.	54
4.3.1. Family structure.	54
4.3.1.1. Household size.	55
4.3.1.2. Household types.	55
4.3.2. ICT ownership.	58
4.4. Summary and conclusions.	64
THEORETICAL BACKGROUND: CONCLUSION.	66

PART 2: RESEARCH DESIGN	69
5. <i>The research design and measurement instruments.</i>	69
5.1. The research project.	69
5.2. MultiSystem-MultiMethod approach.	69
5.3. Quantitative research design.	70
5.3.1. Variables.	70
5.3.1.1. ICT density.	70
5.3.1.2. Socio-demographic structure.	71
5.3.2. Discussion.	72
5.3.3. Families' socio-demographic structure.	72
5.3.4. The family home as a multimedia environment.	74
5.3.5. Towards a family typology.	75
5.3.5.1. Socio-demographic structure of the family types.	78
5.4. Summary and conclusions.	81
6. <i>Qualitative research design.</i>	83
6.1. Phase 1: In-depth family interviews.	83
6.1.1. Discussion: The path to triangulation.	85
6.1.2. Narrowing down the sample size.	86
6.2. Phase 2: Psychosocial research design.	88
6.2.1. Family Interaction Game (FIG).	89
6.2.2. The family list.	90
6.2.3. The family plan.	91
6.2.4. Individual questionnaire.	93
6.2.5. Deprivation study combined with the Experience Sampling Method.	93
6.2.6. Ad hoc observations.	95
6.3. Summary and conclusions.	95
PART 3: QUALITATIVE RESEARCH RESULTS	97
<i>Introduction.</i>	97
7. <i>Traditional families.</i>	97
7.1. The Walters family.	97
7.1.1. Socio-demographic structure.	97
7.1.2. ICT density.	98
7.1.3. A family with conflicting family themes.	99
7.1.3.1. Internal relationships.	99
7.1.3.2. Relationships with the outside world.	103
7.1.3.3. Family theme.	105
7.2. The Griffin family.	108
7.2.1. Socio-demographic structure.	108
7.2.2. ICT density.	109
7.2.3. A family in bounded expressiveness.	109
7.2.3.1. Internal relationships.	109
7.2.3.2. Relationships with the outside world.	114
7.2.3.3. Family theme.	116
7.3. The Rees family.	118
7.3.1. Socio-demographic structure.	118
7.3.2. ICT density.	118
7.3.3. A family in fear of physical compartmentalisation.	119
7.3.3.1. Internal relationships.	119
7.3.3.2. Relationships with the outside world.	125
7.3.3.3. Family theme.	127
7.4. Summary.	129
8. <i>Intermediate families.</i>	130
8.1. The Dunstan family.	130
8.1.1. Socio-demographic structure.	130
8.1.2. ICT density.	130
8.1.3. A family in symbolic compartmentalisation.	131
8.1.3.1. Internal relationships.	132

8.1.3.2. Relationships with the outside world.	139
8.1.3.3. Family theme.	141
8.2. The Irving family.	143
8.2.1. Socio-demographic structure.	143
8.2.2. ICT density.	143
8.2.3. A family in social interaction.	144
8.2.3.1. Internal relationships.	144
8.2.3.2. Relationships with the outside world.	149
8.1.3.3. Family theme.	150
8.3. Summary.	152
9. <i>Multimedia families.</i>	153
9.1. The Collins family .	153
9.1.1. Socio-demographic structure.	153
9.1.2. ICT density.	153
9.1.3. A family in separated connectedness.	154
9.1.3.1. Internal relationships.	155
9.1.3.2. Relationships with the outside world.	161
9.1.3.3. Family theme.	164
9.2. The Brown family.	166
9.2.1. Socio-demographic structure.	166
9.2.2. ICT density.	166
9.2.3. A family bound by spatial organisation.	168
9.2.3.1. Internal relationships.	168
9.2.3.2. Relationships with the outside world.	173
9.2.3.3. Family theme.	176
9.3. The Bell family.	177
9.3.1. Socio-demographic structure.	177
9.3.2. ICT density.	177
9.3.3. A family in connected separateness.	179
9.3.3.1. Internal relationships.	179
9.3.3.2. Relationships to the outside world.	183
9.3.3.3. Family theme.	185
9.4. The Abbott family.	187
9.4.1. Socio-demographic structure.	187
9.4.2. ICT density.	187
9.4.3. A family in physical and symbolic compartmentalisation.	190
9.4.3.1. Internal relationships.	190
9.4.3.2. Relationships with the outside world.	195
9.4.3.3. Family theme.	198
9.5. The Green family.	199
9.5.1. Socio-demographic structure.	199
9.5.2. ICT density.	199
9.5.3. A socially embedded family.	200
9.5.3.1. Internal relationships.	200
9.5.3.2. Relationships to the outside world.	206
9.5.3.3. Family theme.	208
9.6. Summary.	210
10. <i>Conclusion: ICT use as a reflection of general family functioning.</i>	211
10.1. Internal relationships.	211
10.2. Relationships to the outside world.	218
10.3. Discussion.	220

BIBLIOGRAPHY

LIST OF FIGURES

Figure 1.1.: The ‘stimulus-response’ model	3
Figure 1.2.: The ‘stimulus-intervening variable-response’ model	4
Figure 2.1.: The four transactional phases of the moral economy of the household	22
Figure 3.1.: Ideological transformations of kinship	30
Figure 3.2.: The central relationship	31
Figure 3.3.: Family hierarchy	39
Figure 3.4.: The socio-demographic structure of the family in relation to the socio-ICT structure	46
Figure 4.1.: Percent of American children between seven and eighteen years old who live in homes with...	58
Figure 4.2.: Percent of British children between five and eighteen years old who live in homes with...	59
Figure 4.3.: Percent of American children between seven and eighteen years old who have the following media in their bedrooms	60
Figure 4.4.: Percent of British children between six and seventeen who have the following media in their bedroom	61
Figure 4.5.: Percentage of Flemish children between six and seventeen with media in their own bedroom	61
Figure 4.6.: Percentages of Flemish children between six and seventeen with media elsewhere in the home	62
Figure 4.7.: A theoretical model for the study of the implications of ICT for family life	67
Figure 6.1.: Example of the upstairs of a family’s ideal home	89
Figure 6.2.: Example of a family list	91
Figure 6.3.: Example of a family plan	92
Figure 7.1.1.: An excerpt of Mary’s family plan	100
Figure 7.1.2.: An excerpt of Adam’s family plan	101
Figure 7.1.3.: An excerpt of Adam’s family plan	103
Figure 7.1.4.: The Walters family’s family system	106
Figure 7.2.1.: The design of the upstairs of the Griffin’s ideal home	110
Figure 7.2.2.: An excerpt of Christine’s family plan	116
Figure 7.3.1.: A normal ESM week in the Rees family	120
Figure 7.3.2.: An excerpt of Jeffrey’s family plan	126
Figure 8.1.1.: An excerpt of Nicole’s family plan	133
Figure 8.2.1.: The Irving’s ideal home design	145
Figure 9.1.1.: Matthew’s ideal bedroom design	161
Figure 9.1.2.: An excerpt of Matthew’s family plan	162
Figure 9.2.1.: The Brown’s design of the living-room and kitchen of their ideal home	168
Figure 9.2.2.: A normal ESM week in the Brown family	169
Figure 9.2.3.: The Brown’s family home environment	174
Figure 9.3.1.: Erin’s ideal bedroom design	178
Figure 9.3.2.: An excerpt of Erin’s family plan	180
Figure 9.3.3.: An excerpt of Richard’s family plan	180
Figure 9.3.4.: The Bell family’s internal relationships	182
Figure 9.3.5.: An excerpt of Richard’s family plan	184
Figure 9.4.1.: The Abbott’s design of the upstairs of their ideal home	189
Figure 9.4.2.: The homeostatic function of the internet connection	190
Figure 9.4.3.: The morphogenetic function of the internet connection	190
Figure 9.4.4.: An excerpt of Jenna’s family plan	196
Figure 9.4.5.: An excerpt of David’s family plan	197
Figure 9.5.1.: Julia’s family plan	201
Figure 9.5.2.: The Green family’s internal relationships based on ICT	204
Figure 9.5.3.: An excerpt of Chloe’s family plan	205
Figure 9.5.4.: The Green family’s internal relationships based on intellectual and cultural interests	205
Figure 10.1.: The central relationship	211
Figure 10.2.: Orientational differences (conformity-oriented versus conversation-oriented) and vertical transition between the six family types	212
Figure 10.3.: Vertical transition by family	213

LIST OF TABLES

Table 3.1.: The lines of reorganisation and the dimensions of paradigm	34
Table 3.2.: Family type and access dimensions	41
Table 3.3.: The role of pattern regulators in shaping the experience of time and space.	41
Table 3.4.: Hall's temporal characteristics of cultures as applied to families and family viewing behaviour	44
Table 4.1.: Private households in Flanders	56
Table 4.2.: Children under 12 years by household type (percentages)	57
Table 4.3.: Children under 12 years: Household arrangements	57
Table 4.4.: Number of telephony, PC, and TV appliances in Belgian and European households (percentages)	63
Table 5.1.: Percentages of separate rooms in Flemish homes (n=965)	73
Table 5.2.: Percentages of Flemish households number of media appliances at home (n=965)	74
Table 5.3.: Final Cluster Centres (means of the standardized variables for each cluster)	76
Table 5.4.: One-way analysis of variance	77
Table 5.5.: Distances between Final Cluster Centers	78
Table 5.6.: Means, standard deviations and significant results of a one-way analysis of variance of cluster membership on family occupational prestige score, number of children at home, and family educational level	78
Table 5.7.: Means, standard deviations and significant results of a one-way analysis of variance of cluster membership on variables regarding mother's and father's educational and occupational level	79
Table 5.8.: Means, standard deviations and significant results of a one-way analysis of variance of cluster membership on mother's educational level and mother's occupational prestige score	80
Table 6.1.: Frequency table of age and family type membership of the participating children by gender	83
Table 6.2.: Frequency table of educational level and occupational prestige score of the 38 couples by gender	84
Table 6.3.: Percentages of Flemish households (with children) number of media appliances at home (n=617)	87
Table 6.4.: Percentages of media appliances in the children's bedroom, living-room, parental bedroom, kitchen and study in Flemish families with children	87
Table 7.1.1.: Frequencies and placing of the Walters family's media appliances at home	98
Table 7.2.1.: Frequencies and placing of the Griffin family's media appliances at home	109
Table 7.3.1.: Frequencies and placing of the Rees family's media appliances at home	119
Table 8.1.1.: Frequencies and placing of the Dunstan family's media appliances at home	131
Table 8.2.1.: Frequencies and placing of the Irving family's media appliances at home	144
Table 9.1.1.: Frequencies and placing of the Collins family's media appliances at home	154
Table 9.2.1.: Frequencies and placing of the Brown family's media appliances at home	167
Table 9.3.1.: Frequencies and placing of the Collins family's media appliances at home	178
Table 9.4.1.: Frequencies and placing of the Abbott family's media appliances at home	188
Table 9.5.1.: Frequencies and placing of the Green family's media appliances at home	200

INTRODUCTION

In a documentary about the importance of television for family life, one father explains: '*When I turn on the television set, it's just as if family life gets switched off.*' This statement reflects a public concern that has recently shifted from the television set to ICT in general, whereby the emphasis mostly lies on the detrimental effects that ICT have on family life. The premise seems to be that a media appliance causes family life to change dramatically when it is switched on, implying that family life is more normal and perhaps even better when this appliance is switched off.

However, the question 'What is family life?' is never posed, perhaps because everybody uses his/her own family as a reference point. Indeed, it is easy to define your own family and use your definition as a standard to measure other families against and even more so as a mirror, as if all families are a reflection of your own family life. This results in different interpretations of family life. Therefore, defining the family and capturing the dynamics of family life is one of the main requirements when answering the question about the implications of ICT for family life. Conversely, it is essential also to investigate ICT density and ICT use. Furthermore, questions about the introduction of ICT into family life and the meaning ascribed to ICT need to be posed. In order to obtain greater insights into these issues a multidisciplinary research approach is needed.

The first part of this dissertation introduces the theoretical background of our research project. It starts off by introducing the main theoretical evolutions in communication research about families' ICT use (chapter one). This stresses the necessity for a theoretical framework that builds upon Family Systems Theory (Chapter two). This chapter also describes how Family Systems Theory can be applied to the study of families' ICT use. Chapter three postulates a reciprocal relationship between family's psychosocial structure and family's ICT structure. This relationship forms the core of our theoretical model and is embedded in the social context. Chapter four contains a discussion of the social context in terms of family structure and ICT ownership. With regard to the latter the British, American, and Flemish contexts are discussed. At the end of part one the entire discussion leads up to several research questions and a theoretical model for the study of the implications of ICT for family life. This theoretical model serves as a tool for designing a methodological framework and analysing the research results.

Part two presents a discussion of the integration of quantitative and qualitative research methods that were used in order to find answers to the research questions. Chapter five discusses the telephone survey that was designed to study family's ICT density and family's socio-demographic structure. By means of a cluster analysis a family typology was designed based upon family's ICT

density. This typology consists of three family types: the traditional family, the intermediate family, and the multimedia family. From these types a number of families were selected for participation in a qualitative research design. Chapter six presents the methodological problems and decisions made during the entire qualitative research stage. We opted for a MultiSystem-MultiMethod approach consisting of in-depth interviews and a psychosocial research design that uses techniques such as the Family Interaction Game, the family list, the family plan, an individual questionnaire, a deprivation study combined with the Experience Sampling Method, and ad hoc observations.

Part three presents a discussion of the qualitative research results of the three family types. The ten families under discussion are presented as case studies. In chapter seven the traditional families are discussed. Chapter eight presents a discussion of the intermediate families while in chapter nine the multimedia families are discussed. This leads up to a general conclusion (chapter ten) in which the research questions are discussed and recommendations for future research are presented.

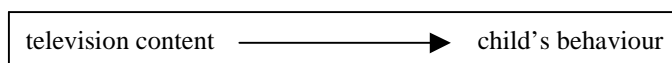
PART 1: THEORETICAL BACKGROUND

1. The impact of Information and Communication Technologies on family life.

1.1. The early years : Children and television.

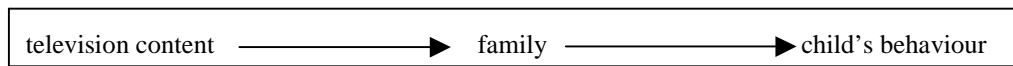
The television set had just arrived in the family home when Himmelweit et al. (1958) embarked on a large scale investigation into the effect of this medium on children's lives. One of the aspects of the study involved an inquiry into the impact of television on family life. At that time, the introduction of television in the family home was applauded because it was believed to keep family members together in the home. Indeed, according to Himmelweit et al., this seemed to be the case. However, the researchers noted that television only kept family members together in a physical sense; it did not imply a greater engagement in meaningful relationships with each other. On the contrary, the increased time spent with the family even produced strains, especially for adolescents, since they are more interested in making contacts outside the family home. Furthermore, parents were found to be greatly in favour of television, to the extent that they did not admit to a need to control the amount and content of children's viewing (see also Canavan, 1974 ; Lyle and Hoffman, 1972) . In addition, Himmelweit et al. gave an impulse to the understanding of family dynamics by indicating that conflicts around television, in many cases, are only indirectly due to television. The researchers pointed out that "Some conflict that occurs is certainly symptomatic of already existing bad relations between parent and child" (Himmelweit et al., 1985: 383). However, researchers kept on focussing on the thesis of linear causation (Belson, 1968). From this perspective, television content has a direct effect on children's behaviour leading to a 'stimulus-response' model as presented in Figure 1.1.

Figure 1.1.: The 'stimulus-response' model.



This model grew out of public concern around violent and sexual television content and the perceived effect on children. Interest in the family seemed to fade away until Brown (1976) picked up on it. He was interested in a multidisciplinary approach to children and television. In accordance with Himmelweit et al. (1958), he incorporated some chapters about the family environment. In one of these, Brown and Linné (1976) abandoned the 'stimulus-response' model by incorporating the family as an 'intervening variable' into the model (Figure 1.2.).

Figure 1.2.: The ‘stimulus-intervening variable-response’ model.



Brown and Linné (1976) indicated that television content does not have a direct positive or negative effect on children. Rather, television effects are mediated by the family. Up until then the main research question had been ‘How does television affect families?’ (Himmelweit et al.,1958). Brown and Linné (1976: 186) proposed an alternative question: “How do families use television?” As such, they recognized the importance of the family context. Due to this family context the influence of television on children may have different outcomes. As a result, researchers became increasingly interested in the way that television effects can be mediated by family background and family communication patterns (Abel, 1976). Here again we find the idea that family interaction matters and is perhaps one of the most important factors in the social context. This idea was shared by Weiss (1969) who concluded that “Television is more likely to reinforce or bring to the surface existing family relations than to create new ones” (Weiss, 1969:113). This started off the joining of television effects research and research into family interaction (Chaffee, McLeod, & Atkin, 1971) in order to study family communication patterns as an intervening variable (Abel, 1976; Lull, 1980a; Lull, 1980b; McLeod & Brown, 1976). These were mostly quantitative studies leading to a one-person interview resulting in a one-person view of the family in question (Chaffee & McLeod, 1972; Chaffee & McLeod, 1973), whereby the children’s point of view was often neglected. At best, researchers questioned parents about their children’s attitudes (Barcus, 1969; Martin & Benson, 1970). More recently, this focus has been increasingly criticised (Austin, 1992; Ritchie & Fitzpatrick, 1990; Tims & Masland, 1985).

Therefore, in recent research, focus is again placed on children’s media use and attitudes (Livingstone and Bovill, 1999 ; Livingstone and Bovill, 2001 ; Van den Bergh and Van den Bulck, 2000) . However, it is no longer the parent that speaks for the child. Children are now regarded as active participants in the research process. They are regarded as main respondents. As a result, research shifts from a parental view of what families do with media to a children’s view on the subject.

1.2. The shift: Family television.

At the beginning of the eighties the methodological perspective changed as researchers in the audience research and cultural studies traditions showed a growing interest in media research in the family context (Lull, 1980a, 1988 ;Morley, 1980,1986). They believed that in order to study the

impact of media on family life every family member should be involved in the investigation, an approach which resulted in a growing interest in qualitative research techniques (Anderson, 1987; Lindlof & Traudt, 1983). The interest in a 'whole family' methodology also induced an interest in the study of media in everyday life (Brody, Stoneman, & Sanders, 1980; Drotner, 1994; Silverstone, 1995). As a result, more attention was paid to the ethnographic research tradition (Silverstone, Hirsch, & Morley, 1991; Hirsch, 1992).

In this regard, pioneering work has been done by Morley (1986) and Lull (1988). They wanted to draw attention to the fact that television viewing occurs in a family context and is therefore influenced by that context. Both works are written in the audience research tradition and explore what lies behind the numbers that are generated by large scale surveys. As indicated by Morley : "to explore in detail within a deliberately limited universe the 'how' and 'why' of questions that lie unexplained behind patterns of viewing revealed by large scale survey work" (Morley, 1988 :28). Lull (1988) gathered essays about families and television viewing in different continents in order to find cultural similarities and differences. The essays focus on interpersonal communication at home and the role that television can play in it. According to Lull, audiences are created by conversation about television. Therefore, the way that television is incorporated and talked about in family life is of major importance to the creation of an audience. He places himself in the naturalistic research tradition by arguing that "we should not simply conduct research that is programatically influenced by any fixed theoretical perspective if we are to really 'let the data speak to us'." (Lull, 1988:16). This implies a greater use of qualitative research methods, and in particular ethnographic techniques, to study communication processes. The aim is to produce a grounded theory rather than starting from a fixed theoretical perspective.

In later work, Lull (1990) emphasises the fact that television programmes are not consumed in the same way in every family. The family is not a black box that just absorbs the programme as intended by the producer. Television can be used in different ways, with different objectives. Lull describes this as 'the social uses' of television (Lull, 1980b:197). In addition, he argues that the arsenal of social uses will not be used in the same way by different families, thereby emphasising that family communication patterns determine to what end the television set is used. His findings direct attention away from technological determinism (the television as a threat to family life) towards social shaping (families use television in their own way).

In: 'Television, audiences, and cultural studies' Morley (1992) gives an overview of the evolution in his work. He first embarked on a project entitled : 'The nationwide audience' (Morley, 1980) followed by the 'family television' project (Morley, 1986) and then set up the theory of 'the moral economy of the household' in cooperation with Silverstone and Hirsch (Silverstone, Hirsch, &

Morley, 1992). Morley (1980, 1986, 1988) deepened the meaning of 'watching television'. Subsequently placing himself in the audience research tradition.

Morley indicates two problems that emerged out of the 'Nationwide' project. Firstly, the respondents were interviewed outside the actual viewing context. However, Morley (1986, 1988) recognises the importance of framing television viewing in its context. He even starts off with the premise of the family as the primary viewing context (Morley, 1986). Therefore, he argues that watching television can only be fully understood in the context of family life. This was a new perspective in audience research that previously had been focussing on the individual as the unit of analysis. This is also related to the second problem. Respondents decode television content differently when they are in different groups. Therefore, Morley (1992) argued that interviewing them in public places for the 'nationwide' project creates other meanings than those they would give when watching the same content in the home context. Furthermore, Morley argues the need to place television viewing in the context of the other leisure activities in which families engage.

In the 'family television' project the aim was to investigate the questions of 'what' and 'how' because the 'why' question had been amply researched by others at that time. When discussing the 'family television' project, Morley (1992) points out that he had difficulties in operationalising his conceptual model especially the notion of investigating television viewing in the family unit. He found it difficult to interview parents and children together. Therefore, he opted to interview parents and children separately while emphasising the parental view. Morley found that one of the major issues recurring throughout all the 'family' interviews was that of gender. Therefore, he chooses to analyze his data within a framework of gendered television viewing. Later on, he admitted that he had been drifting away from the investigation of family dynamics into an analysis of 'gendered individuals' (Morley, 1992:159). He then argues that research should take a sociological turn and investigate how the household structure may influence television viewing. In this regard, and in cooperation with Silverstone and Hirsch (1992), he introduced a new theoretical framework for studying the television audience acknowledging that the domestic ICT structure had changed significantly.

1.3. The expansion: Families and the changing media environment.

1.3.1. The changing media environment.

Research with an interest in television effects on children's lives started off from a negative research orientation. Research into the impact of new ICT such as the Internet seems to parallel this

perspective (Maignan & Lukas, 1997). Nowadays, children need to be safeguarded from indigent Internet material, a negativism which implies that while television may be bad for your children, new ICT are even worse. Furthermore, there is a fear that these developments will lead to further retreat into the family home and isolation from other family members, notwithstanding the fact that research has already indicated that the Internet can be a social instrument in that it brings people together via chatboxes and e-mail (Maignan & Lukas, 1997; Papacharissi & Rubin, 2000). There are however already indications that an increase in Internet use may lead to a retreat from family life and 'real' social contacts (Kraut, Patterson, Lundmark, Kiesler, & Mukophadhyay, 1998). Perhaps, it might be more constructive to start with a positive attitude and look at the ways in which these technologies stimulate children and are enriching family life.

Although studies of computers and, in particular, the Internet in everyday life are now emerging (Bakardjieva & Smith, 2001; Bird, Goss, & Bird, 1990; Moores, 1996a; Murdock, Hartmann, & Gray, 1992) it is clear that the focus remains upon one appliance in the family ecology. However, the era of one television set and one radio set per family is long gone. New ICT are developing rapidly (Gumpert & Cathcart, 1985). Instead of just having one television set, families have two or more, they are equipped with multimedia computers and in many cases also have an Internet connection. As with the introduction of the television, this has triggered a body of quantitative research into the availability of new ICT in the home (Livingstone & Bovill, 1999; Livingstone & Bovill, 2001; Suess, Suoninen, et al., 1998; Roberts, Foehr, et al., 1999). Morrison and Krugman (2001), for example, found that the television set and its related technologies become less important in homes with on-line systems. Furthermore, these studies indicate that families are becoming centres of multimedia activities and create different ICT opportunities for their family members. These different ICT all have the possibility of influencing the use of other ICT and may compete with other family activities such as leisure activities, dinner rituals and so forth. They also take on different functions in family life. Therefore, instead of focusing on one media appliance, research should focus on the whole of the ICT setting in the family home, a challenge already taken up by Livingstone and Bovill (1999, 2001) and Silverstone, Hirsch and Morley (1992).

1.3.2. Young people, new media.

Forty years after Himmelweit's work, Livingstone and Bovill (2001) designed a study which was originally conceived as a replication of the Himmelweit study. However, having noted children's changing media environment, they decided to study the 'mediated childhood' (Livingstone, 1998:435) by designing a large scale comparative study. The main purpose was to study European children in their changing media environment. Countries involved were: the Netherlands, Belgium (Flanders), the United Kingdom, Denmark, Finland, France, Germany, Sweden, Spain,

Switzerland, Israel, and Germany. In accordance with Himmelweit they incorporated an investigation into the family context.

Livingstone and Bovill (1999) conducted the British part of the study. It is an investigation into the everyday media use of British children between 5 and 18 years old. Rather than starting off from a particular theoretical framework they aimed at mapping out and understanding media access and use amongst British children. As a result, the study is of a descriptive nature and must be conceived as updating our knowledge of children's media environment. Livingstone and Bovill argue that their study is "a baseline against which to understand and measure future changes" (Livingstone & Bovill, 1999 :Ch.1 Pg.15). The research topics were: media access, lifestyle, competition, uses of new media, and social change.

Livingstone and Bovill (1999) frame children's media experiences in the family context and the environmental context (peers and school). Firstly, they set up a family home typology on the basis of media access in the home as reported by the children. Via a cluster analysis of the data with regard to 'media located elsewhere in the home' they identified three types of homes: media-rich homes, traditional homes, and media-poor homes. Media-rich homes have more media than the average home and are equipped with 'new media' such as Internet. In these homes children have a variety of media appliances at their disposal. Traditional homes are the average ones with regard to most of the media appliances investigated. They however did not have lots of 'new' computer media such as Internet and modems. Media-poor homes score less than average on all the listed media. Families with very young children are mostly found in these homes. As the study developed, Livingstone and Bovill became especially interested in the children's 'bedroom culture' (Livingstone & Bovill, 1999:Ch.4 Pg.28). By creating a bedroom typology they came up with five bedroom types: media-rich bedrooms, books and PC-oriented bedrooms, books and music-oriented bedrooms, screen entertainment bedrooms, media-poor bedrooms. Differences in bedroom type seemed to be related to age, social class, and gender.

Although it is a recent research project some critical remarks have already been made. Buckingham (1999) points out that the quantitative research part gives an impressive overview of children's media access and use. However, he argues that this emphasis on quantitative research leads to a major oversight with regard to the meaning of media in children's lives.

1.3.3. Families in the changing media environment.

Silverstone, Hirsch, and Morley (1992) recognized the changing media context within the family and produced pioneering theoretical work in this area (Morley, 1992; Morley & Silverstone, 1990;

Silverstone, 1991; Silverstone, 1996; Silverstone & Hirsch, 1992; Silverstone, Hirsch, & Morley, 1991). They base their theoretical framework on three considerations: Firstly, they argue that “television should now be seen, not in isolation, but as one of a number of information and communication technologies, occupying domestic time and space alongside the videorecorder, the computer and the telephone, as well as the walkman, the answering-machine, the stereo and the radio” (Morley & Silverstone, 1990 :31). Furthermore, they emphasise the importance of looking at the television audience as embedded in a social, economic, and cultural structure (Silverstone, 1996). Thereby, they move away from the notion of linear causation towards a model of circular causation whereby the exchanges between public and private environment are investigated. The last consideration is methodological in nature. According to Silverstone, Hirsch, and Morley (1992) the role of media in everyday life can only be fully understood by employing an ethnographic research design. These considerations lead to a re-conceptualisation of ‘audiences’ to ‘consumers’. This theoretical framework will be discussed fully in the following chapter.

1.4. Summary and conclusions .

There are two noticeable evolutions in the research on the impact of Information and Communication Technologies on family life. Firstly, the evolution from a television perspective to an emphasis on the changing media environment. Secondly, the evolution from a child-centred approach to a family approach.

The first evolution is a very slow one that sheds light on a problematic issue in ‘effects’ research. From the day of its introduction in the family home, television has been regarded as the central medium. The main body of research concentrates on the effects of television on family life and especially on the relationship between parents and children whereby parents are regarded as mediators of television content for their children. As a result, the family is conceptualized as ‘the context for television viewing’ (Alexander, 1990; Brody & Stoneman, 1983; Bryant, 1990). This perspective denies the importance of other ICT for family life, a perspective that emerged in the eighties with the introduction of the VCR and in the nineties when the PC was introduced in the family home. However, this only shifted attention from one media appliance to another without recognizing the importance of the entire ICT environment. Furthermore, the emphasis was often placed on displacement hypotheses whereby researchers studied how these new ICT affect ‘television viewing’.

Nowadays, families are becoming centres of multimedia activities. Previously the family context was regarded as pre-given and the individual was studied loosened from his surroundings.

Nowadays, analogue reasoning is found in relation to the family's ICT context. It is perceived as pre-given and media appliances are studied separate from the family ICT context. However, since media appliances are brought into the family context they are brought into a changing network of family relationships. As a result, questions with regard to the implications of these new ICT for family life emerge: 'Do they provoke changes in family relationships?' and 'How does this network of family relationships incorporate ICT?' We argue that the use and presence of a media appliance cannot be studied separately from the use and presence of other media appliances in the home. Therefore, it is not a question of how these new ICT affect family life or of what families do with these new technologies. Rather it is a question of how they are incorporated into family life and what the degree of importance is that families attach to them.

Furthermore, studies investigating the ICT structure of the family have limited themselves to quantitative analyses of ICT density and ICT use, thereby overlooking the fact that there is a research field behind the numbers that is currently uncultivated. Now that researchers have established the bare statistics it is time to embark on the investigation of the impacts of these media appliances on family life. An investigation which in nature is explorative but tries to give a stimulus to future theory building and the development of qualitative research. Lots of intriguing questions have not been addressed yet. For example: 'What does it mean for a family to be living in a multimedia environment?', 'How does this affect their lives?', 'What does it mean to a family to have few ICT?', and 'Are family members becoming alienated from each other and from the outside world because of ICT use or is it their family structure that alienates them?' We want to know how ICT are incorporated in the family ecology and to what extent these different ICT influence this ecology. However, it is not in the scope of our study to investigate the influence of the content of these ICT on family life. We postulate that the mere presence of media appliances in the home may already have implications for family life.

Himmelweit indicated that family dynamics might be of importance when studying television viewing. However, in early research, the main interest remained the effect of television viewing on children, whereby the effect was conceptualized as a linear 'stimulus-response' causation model. At the beginning of the eighties the cultural studies and audience research traditions caused a revolution in television research by emphasizing the importance of the family as the context for television viewing. Not only did this cause a shift in the unit of analysis (from children to the family) but also in the research methodology (from quantitative research to ethnography). Most of the research in this field is mainly descriptive. A lack of in-depth qualitative analysis deprives us from an insight into the meaning of ICT in family life.

We acknowledge the importance of research into children's ICT use but believe that the study of the family as a whole will deepen the perspective of individual family members. After all, family members influence each other and therefore the ICT use of one family member may influence that of other family members and perhaps also the entire organisation of the family, family communication patterns, and the family's way of life. Furthermore, families do not live isolated from their environment. They can be influenced by, for example, extended family and friends. This leads to a dynamic process. Families are in constant evolution as, indeed, is the ICT context in their home. Therefore, the family structure can indicate to us how families will incorporate and use ICT in their everyday life. It gives an indication for how much impact they let ICT have on their lives.

In short, from previous theoretical and empirical research four basic conclusions can be postulated: firstly, research should focus on the family as a whole and not on individual family members; secondly, linear causation reasoning should be adjusted; thirdly, since the family lives in a specific social context the family environment must be taken into account; and finally, the family must be studied as living in a multimedia environment.

2. Applying Family Systems Theory to the study of media use at home.

2.1. Introduction.

We deduced four important considerations from previous research. Firstly, the family must be studied as a whole, not every individual separately. Secondly, the principle of non-linear causation. All television effects can not be captured in a ‘stimulus-response’ model nor in a ‘stimulus’-‘intervening variable’-‘response’ model whereby the family is the intervening variable. In some cases there is a more complex set of causal relationships at play. Thirdly, the family must be studied in its social context. Fourth, the family home is a multimedia environment. The first three considerations lead us to adapt a Family Systems approach to our study of the implications of information and communication technologies for family life. The Family Systems Theory (FST) originates in General Systems Theory (von Bertalanffy, 1968). Although, Burgess (1972) early on referred to the family as ‘a unity of interacting personalities’ it wasn’t until the work of Hess and Handel (1959) that General Systems theory was used in family research. General Systems theory was adapted by psychiatrists and proved to be of major importance to family therapy. At the same time, partly due to family therapy, it made its way into family social science research (Rodger, 1996). The basis for Family Systems Theory is formed by several considerations about the nature of sub-systems, systems, and supra-systems. These considerations differ over the literature. Hess and Handel (1967), for example, indicate that the family must be studied as a whole and point out five essential processes of family interaction (Hess & Handel, 1967:12):

1. Establishing a pattern of separateness and connectedness.
2. Establishing a satisfactory congruence of images through the exchange of suitable testimony.
3. Evolving modes of interaction into central family concerns or themes.
4. Establishing the boundaries of the family’s world of experience.
5. Dealing with significant biosocial issues of family life, as in the family’s disposition to evolve definitions of male and female and of older and younger.

While Cox and Paley (1997:245) point out the following important properties for understanding the family as an organised system:

1. wholeness and order
2. hierarchical structure
3. adaptive self-stabilization (homeostatic function)
4. adaptive self-organisation (ability to change)

Broderick sums it up by starting from the premise that “the family is an *ongoing, open, social, system*” (Broderick, 1990:178). Therefore, in accordance with Morgan (1985), we argue that four basic assumptions need to be considered when applying a systems approach to the study of family life (Morgan, 1985:145) :

1. An orientation which considers the interdependence of parts and whole.
2. An orientation based upon the assumptions of non-linear causation.
3. An orientation which sees the family as an example of an open social system
4. An orientation which examines the family in relation to its environment, which examines the interchanges that take place between the family and its environment and which may also see that environment itself as structured in crucial ways.

2.2. Basic assumptions of Family Systems Theory.

2.2.1. Systems can only be understood as wholes.

According to General Systems theory, a system must be understood as a whole. This holism can also be found in Family Systems Theory (Broderick, 1990; Morgan, 1985) and coincides with the emphasis in communication research on a ‘whole family’ methodology (Morley, 1988). It implies that a family must be seen as an integrated entity that is more than the sum of its parts (the individual family members). Consequently, in order to understand a family it is not sufficient to investigate individual family members. In a sense they do not add up (Roberts, 1994). Furthermore, the assumption of wholeness implies that family members are interconnected and influence each other (Handel, 1965; Loukas, Twitchell, Piejak, Fitzgerald, & Zucker, 1998).

This emphasis on wholeness did lead to a neglect of the individual especially in therapeutic sessions as indicated by criticism on the Family Systems Theory (Klein & White, 1996; Yerby, 1995). However, system theorists themselves indicate that wholeness does not imply that individual members’ responsibilities can’t be studied. As Witchurch and Constantine (1993:348-349) indicate:

‘The assumption of wholeness and characteristic of interdependence do not preclude looking at individual members of families, as long as individuals are regarded as subsystems *of* and not as isolates *from* the family.’

2.2.2. Non-linear causation.

As noted in the previous chapter, researchers always tried to impose the mathematical paradigm of linear causation on sociological phenomena. However, Family Systems Theorists start from the point of non-linear causation and introduce a circular causation model whereby systems as well as sub-systems and individuals get feedback from their environment and remain stable or change (Broderick, 1990; Cox & Paley, 1997).

Changes and stabilisation are the outcomes of positive or negative feedback loops (Roberts, 1994). Negative feedback loops are no cause for change. They reinforce the original behaviour whether it is positive or negative. This is the homeostatic function of the family system. The family will always try to remain stable (Broderick, 1990; Klein & White, 1996). When a new ICT appliance is introduced in the family home, the family will try to take the necessary actions to put itself back into its original state of homeostasis. For example, when the internet is introduced in the family home some families make up rules that limit the amount of time family members are allowed to go on the internet. As such, they try to preserve family time. On the other hand, positive feedback loops change the system. This leads to morphogenesis. This means that the structure of the family system is altered. For example, the internet is introduced in the family home and this causes family members to spend more time together behind the screen in order to explore the Internet. As such, the family is able to change (Broderick, 1990; Witchurch & Constantine, 1993). Roberts (1994:13) sums it up by indicating that “these feedback loops keep the system stable but able to change.” Therefore, morphogenesis is a very important, though often overlooked, feature of family functioning (Roberts, 1994).

The circular causation model has been criticised because it does not take into account that certain things happen to the family ‘for no reason at all’ (Klein & White, 1996; Yerby, 1995). As a result, the process is not always causal. However, we would like to argue that this circular process is not a question of causation but rather a question of embeddedness into a certain context which leads to an interplay of factors that may have different outcomes at different times. As such, the aim of our research does not lie in the outcomes of the process but rather in the investigation of the process itself.

2.2.3. The family as an open social system.

The family in itself is a social system and is embedded in a larger social system. Therefore, in order to maintain family life it has to take care of two fundamental processes. Firstly, searching for a pattern of separateness and connectedness (Handel, 1996; Hess & Handel, 1967). A process that

occurs inside the family system. Secondly, structuring openness and closedness. This determines the family's connections with the outside world (Morgan, 1985). In both these processes family boundaries are manifested.

When it comes to relationships with the outside world every family establishes its boundaries and these determine how family members interact and how much interaction is allowed outside the family. Although systems theorists use the concept of 'boundary maintenance' (Morgan, 1985; Roberts, 1994). However, in our opinion boundary maintenance implies a conservatism whereby the meaning of the concept of boundary seems to be 'a barrier', a sort of fixed imaginary wall that by all means has to be defended by the different family members. However, boundaries are flexible and will not be the same in different situations. In the words of Rosenblatt (1994:86) :

"Family boundaries may be understood as interfaces between what they bound and what surrounds what they bound. Rather than being simple barriers, they are gates, sieves, and windows that open and close."

As flexibility is the key element we suggest changing the concept of 'boundary maintenance' to 'boundary management'. Minuchin (1974) indicates three types of family boundaries: rigid boundaries, clear boundaries and diffuse boundaries. Clear boundaries are physical, mental, or emotional barriers that allow for adaptation and change. Rigid boundaries restrict adaptation and change. Diffuse boundaries allow for too much change and adaptation. However, in practice most family systems can be regarded as open systems with more or less permeable boundaries (Vetere, 1987). They simply vary in the degree of permeability (Klein & White, 1996). Boundary management is the way in which families organise and curtail family members' experiences. Experiences as well inside the family as outside. Generally, families will be aware of the fact that there are certain rules with regard to the experiences with the outside world. However, they will be less aware of boundary management inside the family.

Inside the family, the concept of family boundaries can be divided in physical boundaries and emotional boundaries (Roberts, 1994). Physical boundaries may include a family member's favourite place at the dining table or a room that others may not use. Emotional boundaries regulate distances. They regulate the amount of closedness within the family, a mechanism that leads to the creation of family subsystems whereby some family members are included while others are excluded. In each family, family members are both connected to, and separated from, one another. This implies that each family must negotiate its own amount of family cohesion (Hess & Handel, 1959). As Hess and Handel (1972) put it:

“The family’s life together is an endless process of movement in and around consensual understanding, from attachment to conflict to withdrawal – and over again. Separateness and connectedness are the underlying conditions of a family’s life, and its common task is to give form to both” (Hess & Handel, 1972:10).

Both of these processes construct family life. In some families emphasis may be placed on separateness while in others on connectedness. However, we like to point out that this does not imply that families with an emphasis on separateness are not functional or vice versa. In some cases an overemphasis on one of the two processes is wanted in order to maintain the balance of the family system.

2.2.4. The family and its environment.

According to Family Systems Theory, the family system is embedded in a social context which is composed of other family systems and the family environment (Broderick, 1990; Cox & Paley, 1997; Roberts, 1994). An analogue opinion can be found in the work of Morley and Silverstone (1990) . As they advocate studying the family in its social context. In Family Systems Theory this embeddedness can be conceptualised in three ways (Morgan, 1985: 143-144) :

1. The ‘Russian doll’ model of subsystem within systems, these systems being themselves subsystems of wider systems.
2. The systems-exchange kind of model. A total system may be seen as a political system, an economic system, a family system, a community and a value system. There are regular patterns of exchange and interchange between them.
3. The ‘system in its environment’ model. The environment is treated as a ‘given’. The analysis of the system is concerned with the analysis of two processes: the process of boundary maintenance in relation to the outside world and the process of exchange between the system and its environment.

The third view is most favoured in Family Systems Theory (Morgan, 1985). However, this view does not imply subsystems in his conceptualisation and does not investigate the environment as such. It focuses on the relationship between the family and its environment and the feedback loops between them. In our opinion the first view (Russian doll) is more valuable since it incorporates subsystems and supra-systems. Indeed, the family system is embedded in the larger social system but it is also the environment for the family subsystems. Therefore, when a system is investigated, the supra-systems as well as the subsystems should be taken into account. In Family Systems theory this is indicated as a hierarchy because of the increasing complexity of the systems:

subsystems, systems, and supra-systems. However, caution is needed not to overemphasise the context (Ang, 1996). The introduction of an investigation of supra-systems into the research design could shift the focus away from the family system.

2.2. A Family Systems approach to the study of media use at home.

For the research project at hand the discussion of how Family Systems Theory has already been applied in communication research and what can be contributed to this line of research is most important. Therefore, only the basic assumptions of Family Systems Theory were discussed. As such, we acknowledge that our discussion of Family Systems Theory is not fully elaborated. However, further elaboration will focus on how the line of research that is developed in communication research can be advanced. Therefore we will discuss three communication research studies that applied Family Systems Theory in their study of media use at home.

2.2.1. Goodman's perspective.

Goodman (1983) argues that the 'stimulus-response' model in traditional television research is not realistic and adds that the 'stimulus-intervening variable-response' model, that emerged later, is still a linear one and therefore can not explain the true nature of the impact of television on family life. Alternatively, Goodman puts forward a systemic model. Thereby introducing the Family Systems approach as a new perspective in television research. In this model the family system includes the family unit as well as the television.

According to Goodman two principles of Family Systems thinking are important when investigating the role of television in family interaction (Goodman, 1983:408):

1. using the family as the unit of analysis

This implies that the family is studied as a whole as well as the individual family members. Caution has to be taken because the sum of the individuals does not equal the family as a whole.

2. studying family process as it relates to various outcomes, rather than outcomes alone

Goodman indicates that lots of research has been done on the outcomes of television viewing. In particular, on rules with regard to television. The attention of researchers has always been directed to the immediate outcomes of these rules. However, they did not look at the process of rulemaking. Rules with regard to television are generated through a certain process of family functioning that may differ between families but also within families. It is important to note that family members

may differ in their perceptions of family functioning and hold other meanings about television rules and the importance of these rules.

A Family Systems schema has got three components (Minuchin, 1974): family structure, family undergoing development, and family adaptation. Goodman relates these components to television viewing. According to her: “The *family structure* is the invisible set of functional demands that organises the ways in which family members interact” (Goodman, 1983: 412). These functional demands are performed through subsystems formed on the basis of age, gender, function, or interest. One of the interests of a subsystem may be watching television. Indeed, it is plausible that family subsystems emerge based on a shared interest in a certain type of programme content, for example, soaps or cartoons. Furthermore, according to Goodman, television’s function in family life may be that of the scapegoat. It seems to be easier to argue about the television set than about what really matters. In consequence, this makes a subsystem based on watching television extremely functional when it comes to maintaining the balance of the family system (homeostatic function). Another homeostatic function of television is the fact that it abolishes age differences or generational differences.

The family structure is not static. *Families are undergoing development* over time. Goodman argues that the role of television must be investigated with regard to the family life cycle. For example, she points out that rules with regard to television watching can not be the same for younger and older children. Families must adapt their rules or risk problems in the family system.

The last component is that of *family adaptation*. It is an investigation into the ways in which families adapt themselves to changing circumstances as well from within as outside the family in order to preserve continuity. Indeed, it seems clear to us that families need to adapt their lives when, for example, one of the parents loses his/her job. Furthermore, Goodman illustrates that television may cause conflict and may press the family to adapt. She points out that there may be intergenerational conflicts around television due to the fact that parents bring television experiences out of their family of origin into their own family. However, in the family of origin, television was a new medium and was used differently from the way that it is used in their own family. Goodman also illustrates the fact that pressure to adapt may occur from outside the family. Children are often pressured by peers to watch certain television programmes in order to keep up. Parents may not always agree with these programme choices. Parents, as well, may feel peer pressure to watch certain programmes. However, the television is not only cause for adaptation but also serves as a tool to adapt to pressures. Indeed, we can imagine that when one of the parents loses his/her job, he/she has the option to watch more television in order to cope with negative feelings. In addition,

Goodman points out that a certain level of conflict with regard to the television is normal but continuing conflict may point to a more general problem in the family.

To round up the theoretical account, Goodman gives directions for future research. She proposes a multi-method approach whereby quantitative and qualitative research techniques are combined in order to come to a better understanding of the role that television plays in the family system. To find out whether or not television is typical of other family interactions or is unique in this regard. Furthermore, she indicates that it might be interesting to compare families' perception of TV use with their perception of general family functioning. In the multi-method approach lies the possibility of comparing the outcomes of the different methods.

2.2.2. Jordan's perspective.

In accordance with Goodman, Jordan (1990) starts from the Family Systems assumption of wholeness. She argues that: "if we are to understand media use by individuals, we first need to understand media use by families" (Jordan, 1990:164). She also puts forward a systemic model that focuses on 'relationships' and 'contexts'. However, she adopts the Family Systems perspective to a study into the use of the VCR in the home and broadens the research interest. In addition to Goodman, she acknowledges that next to the television, other media are appearing in the family home. Media that are all part of everyday family life. According to Jordan, VCR use must be placed in the context of other media uses and in the context of family values and beliefs. She develops a circular argument by researching how VCR use affects family values and beliefs as well as how family values and beliefs affect VCR use. Jordan gives the example of time-shifting. Described by researchers as the number one use of the VCR (Levy, 1981; Levy, 1983). Jordan urges to look at this phenomenon in a different perspective by asking if "the use of the VCR for time-shifting reflects other values the family has about time?" (Jordan, 1990:165). She argues with Bochner & Eisenberg (1987) that a theoretical framework must move away from thinking in terms of 'forces' and 'causes' to thinking in terms of 'relationships' and 'contexts'. However, Jordan does not have the intention to pinpoint what the exact influence of the VCR on the family patterns is, nor what the exact influence of family patterns on the VCR is. The investigation is aimed at describing the relationship of those two to each other and to the larger family system.

In order to study VCR use in the family system, Jordan opted for an ethnographic research design. She observed twenty-one families for three days and administered follow-up interviews. The results of this study were divided in two domains: the structural domain and the social domain.

The *structural domain* can be subdivided into spatial organisation and temporal structuring. Jordan discusses the use of the VCR in the physical space and comes to the conclusion that “How the VCR fits into these ‘spaces’ may be an indication of how the VCR fits into the larger system of family life” (Jordan, 1990:168). With regard to VCR’s function in families’ use of time, Jordan concludes that families use the VCR in four ways: for time-shifting, to adapt time, to structure time, and to fill time. Firstly, time-shifting is the most widely studied use of the VCR. However, Jordan indicates that there are families that prefer ‘real time viewing’. Secondly, adapting time happens when families start fast forwarding or rewinding tapes in order not to see some of the taped material or to see some of the material again. Jordan found that this feature is also used by parents to edit what their children will see. Thirdly, the VCR is used to structure everyday life. Jordan gives the example of the bedtime ritual. She found that parents often tell their children to go to bed when a certain video program is finished. Finally, the VCR can be used as time filler.

The *social domain* can be defined by an investigation of: family roles, family rules, and family interaction patterns. According to Jordan those elements make up the family system. In a family, family members take on certain roles and act them out in everyday life. Jordan argues that the media context reflects these family roles. In this regard, Jordan found that it is mostly the mother who controls and plans VCR use which runs counter to findings from television research. When investigating family rules with regard to VCR use, Jordan observed that the way families thought about time, rules, and media use was reflected in parental control of the VCR. In examining the role of the VCR in family interaction Jordan focused on whether or not the VCR was used alone or in the company of other family members and whether or not this induced conversation. In this regard Jordan most interestingly indicates that family members may talk about taped programmes outside the viewing context.

2.2.3. Silverstone, Hirsch, and Morley’s perspective.

Silverstone, Hirsch and Morley (1992) indicate that they derived their theoretical framework from anthropological and historical research (Silverstone, Hirsch, & Morley, 1992 :16). However, as we will argue, it fits perfectly in the Family Systems Theory tradition.

Their unit of analysis is not the family but ‘the household’. In their view, the household contains the family but is more extended since it also contains other relationships. Furthermore, the family is seen as a social unit, whereas the household is seen as an economic, social and cultural unit (Silverstone, 1991). It extends beyond family boundaries. Therefore, “households are conceived as part of a transactional system of economic and social relations within the formal or more objective economy and society of the public sphere” (Silverstone, Hirsch, & Morley, 1992:16). The focus is

placed on the introduction of media technologies in the household. Investigating how the public meaning of an object is negotiated in the household and may therefore change and have a whole other meaning inside the household. This is the process of domestication (Silverstone, 1996). The theoretical framework is designed in order to investigate the role of information and communication technologies in the relationship between the public and the private economy. Therefore the household is conceptualised as a 'moral economy' (Silverstone, 1991:143).

The household is an *economy*. Via the productive and consumption acts of its members it is involved in the public economy but is also in itself an economic unit. Furthermore, the household is a *moral economy* because "the economic activities of its members within the household and in the wider world of work, leisure and shopping are defined and informed by a set of cognitions, evaluations and aesthetics, which are themselves defined and informed by the histories, biographies and politics of the household and its members" (Silverstone, Hirsch, & Morley, 1992:18). Households may share aspects of their moral economy with other households; however, each household's moral economy has unique elements. According to this view a technology has got its own biography which is formed in the public sphere of the economic and cultural structure. When it is brought into the household it arrives in a unit that has its own biography with regard to technology as well as with regard to cultural behavior. The technological biography as well as the household biography will interact and change the meaning of the technology

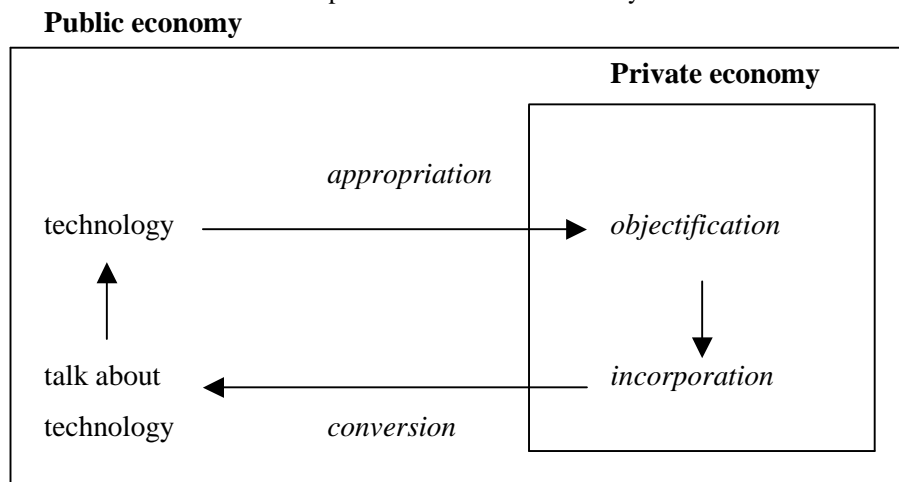
The moral economy of the household consists of four transactional phases: appropriation, objectification, incorporation, and conversion. Technology is *appropriated* at the moment of purchase. It is through appropriation that technologies become meaningful. Appropriation applies to the whole of the consumption process and to that specific moment when technology crosses the border between the public economy and the private economy and becomes an object. This process may relate to the media appliance as such as well as to the media content.

After the purchase the process of *objectification* commences. Objectification is related to the use of the technology. It is expressed in the way that households display their technology. As such, technology becomes a part of the spatial organisation of the home. The placing of these appliances creates a meaning. However, in most homes spaces already have a certain meaning attached to them before the technology is appropriated. This pre-existing meaning may influence the way in which technologies are objectified. Furthermore, the content of the technologies may also be appropriated. Silverstone, Hirsch, and Morley argue that content can be objectified by temporal structuring or by household discussions. Bearing in mind that technologies have their own meaning and are introduced in an already meaningful situation.

The concept of *incorporation* focuses on how technologies (objects) are used in the household by household members. Technologies are functional and may have different functions for the household than those prescribed by the public economy. However, in order to be functional, technologies need to find their way into the household's day-to-day live and activities. Otherwise, they simply remain objects. Here, the authors place emphasis on the importance of the study of everyday live for understanding the meaning of technologies. Even more because incorporation becomes clear in the temporal structuring of the household when studying the incorporation of technologies into household rituals and daily routines. Furthermore, questions of age and gender also become apparent in the incorporation phase. The researchers have a special interest in gender issues and believe that the process of incorporation of new technology such as the computer, will strengthen 'family's gendered culture of technology' (Silverstone, Hirsch, and Morley, 1992 :25). Through the processes of incorporation and objectification, spatial and temporal boundaries emerge as well within the household as between the household and its environment. Through appropriation the technology enters the household, and then the technology gets objectified and incorporated inside the household. In the final phase the meaning of the technology gets converted and leaves the household.

Silverstone, Hirsch and Morley use the conversion of money as a metaphor for the *conversion* of technology meanings. They argue that a meaning has no relevance in the public sphere if it is not converted. Conversion is used by the household to create a status for itself in the outside world. For example, through talking to peers about a certain computer game, members of the household share their meaningful constructs with the outside world. The appliance as such can also create household status by communicating meaning with the outside world. The researchers give the example of the satellite dish. The mere fact that it is standing on top of your roof, communicates a certain status to the outside world.

Figure 2.1. : The four transactional phases of the moral economy of the household.



The authors clearly introduce a transactional perspective on the meaning of ICT in family life. The process of appropriation, objectification, incorporation, and conversion is presented as a transactional one. The household is conceived as part of a transactional system between the public economy and the private economy. Through appropriation the technology gets introduced in the household. Objectification and incorporation are two phases that are inherent to the internal household structure and change the meaning of the appropriated technology. Thereafter, the way in which people converse the meaning of technologies may lead for example, producers and advertisers to adjustments to certain technology. This is a model that has been used in market strategies. For example, by introducing a technology in a try-out sample of families and analysing the ways in which they objectify and incorporate the technology but also by investigating the conversion of the medium. Thereafter, design or functional adjustments are made.

Referring to Morgan's (1985) different approaches of the environment in Family Systems Theory (supra), this model can be classified as a 'system in its environment' model. Aiming at investigating the exchanges between the 'household' and the 'public economy'.

Silverstone (1996) conceptualises the moral economy of the household as a socio-technical system. This means that the theory is based on the premise that nowadays more and more households are equipped with more and more technologies. Therefore, the whole of this technological structure must be investigated. However, in their theoretical elaboration of this premise they do not place television alongside the other media appliances. On the contrary, they look at it as being the 'leading object' (Lefebvre, 1971 quoted by Silverstone, Hirsch & Morley, 1992:21). The other media appliances are only acknowledged as changing the context and even the meaning of 'watching television'.

2.2.4. Discussion: The path to a theoretical framework.

The four basic assumptions of Family Systems Theory lead us into a framework for investigating the implications of information and communication technologies for family life. We will study the family as a whole. This does also include an investigation of the individual. However, conceptualised as being embedded in the family. We will apply the notion of non-linear causation. However, in accordance with Jordan we propose a reciprocal 'relationship' model. Since, non-linear causation does not take into account that certain things happen to the family 'for no reason at all'. Therefore, the process is not always causal. We argue that this reciprocal process is not a question of causation but rather a question of embeddedness in a certain context which leads to an interplay of factors that may have different outcomes at different times. Family System Theory conceptualises the family as a process. It is not one given state at one given time but it changes

constantly and has to adapt to influences both from without as from within the family system. The reactions can consist of negative feedback loops or positive feedback loops. The way that families incorporate media appliances in their everyday live and the amount of impact they let them have on their lives is different for every family because of these homeostatic and morphogenesis processes. Furthermore, we conceive the family as an open social system whereby the processes of boundary management and family cohesion are studied. Finally, we acknowledge that the family is embedded in a larger social context. This embeddedness can be seen as a 'Russian doll' model, a 'system-exchange' kind of model, or as a 'system in its environment' model. The latter two are emphasising the relationship between the system and its environment. However, this may lead to an overemphasis on the context, neglecting the fact that family dynamics do also occur inside the family. We therefore propose a theoretical framework that is based on the 'Russian doll' model. In this model subsystems are conceptualised as embedded in systems that in turn are embedded in supra-systems.

Next to these four basic assumptions we introduce the assumption that families are now living in a multimedia environment. Therefore, the assumptions of Family Systems Theory will be applied to investigate the implications of ICT for family life. This has already been done by communication research into television use and family interaction (Goodman, 1983), video use in family life (Jordan, 1990), and the introduction of ICT into family life (Silverstone, Hirsch, and Morley, 1992).

Goodman indicated that television causes changes to the family system. In addition, we propose to investigate whether the entire ICT structure of the family causes changes to the family system. Special attention will be given to new ICT. Furthermore, one of the major findings reported by Goodman is the fact that television is also used to cope with changes from within and outside the family. In addition, we will investigate whether or not new ICT take on the same function. This raises interesting questions, such as: 'Does TV become less important as a homeostatic factor due to the introduction of new ICT?' On the one hand, new ICT may create an imbalance. This may lead family members to resort to the television in order to get back into balance. On the other hand, new ICT may take over the homeostatic function of the TV. Perhaps we are in a phase where new ICT produces an imbalance in the family system and subsystems and families are still learning how to cope with it (how to incorporate these technologies) and create a new balance?

Furthermore, we will elaborate Goodman's idea of subsystems that are based on interests. It will be interesting to find out: whether or not ICT create new subsystems and what the nature is of these subsystems. To what extent do these subsystems replace other subsystems and go beyond the boundaries of existing subsystems? Are subsystems created by ICT different from those that are

created for other reasons? Is a subsystem that is created due to ICT prevalent over other subsystems? Are subsystems created by ICT use more open or closed than other subsystems? Do these subsystems follow specific rules with regard to membership? Are their conflicts between different subsystems? What is the hierarchy in the ICT subsystem? Are ICT subsystems related to gender, age, or discriminating towards other family members or towards other subsystems? It will be interesting to extend this idea to the family system and the supra-system. One of the most tentative questions will be: 'Does new ICT create new family systems?' and 'Do these new family systems go beyond family boundaries and as such create a threat to the family system?' 'Do subsystems based on interests have the capacity to go beyond the boundaries of age and gender?' Examples can be found in everyday life. Thinking only of father and son that go to the same computer club and share their interests in computer technology with each other. Or siblings that are hooked on computer games and exchange cheat codes. Maybe these subsystems are the filter for adapting to new ICT since they have all the know-how.

Goodman elaborates the meaning of peer pressure to the family system. She indicates that children are sometimes forced to watch certain programs in order to keep up with their friends. We would like to investigate whether peer pressure also influences new ICT use. Indeed, it is imaginable that children need to follow up on the latest computer games or the coolest internet sites in order to be cool themselves and be accepted by peers. It is plausible that this peer pressure causes problems for family functioning for example, when parents do not want to connect to the Internet or forbid the child to play certain computer games. However, Goodman points out that parents can also be under peer pressure. Maybe they are pressured by colleagues to have e-mail at home or to do electronic banking.

Goodman argues that family's interaction and use of television can be regarded as typical of other family interactions. In this regard, we would like to introduce an investigation into whether or not ICT use is typical of other family interactions. We argue that new ICT may cause changes to these 'normal' family interactions. While television is already well embedded in family and social life, the Internet, for example, is not. This may create opportunities for the Internet to be something unique and something that has a special role in the family.

Overall, Goodman puts forward an interesting theoretical model and touches on how to make it operational in television research. However, it remains a theoretical construct. On the other hand, Jordan applied a family systems approach to an empirical study into VCR use in the family home. Jordan gives the onset to an interesting thought when it comes to the impact of ICT on family interaction. She argues that families talk about taped programmes outside of the viewing context. This indicates that conversation does not always happen directly in front of the screen (television or

VCR). It can happen afterwards, for example, when the family is having dinner. Therefore, we argue that the notion of family interaction is more complex than sitting together in front of the television. Maybe family interaction in front of the screen can not be observed and therefore one might think that the set is detrimental for family life. However, ICT related talk may occur during other activities. Perhaps in such a way that it strengthens the family system and family interaction patterns. Since at that particular time the other family members may be more open to conversation than while sitting together in front of the screen.

Furthermore, Jordan found that one of the functions of the VCR is that it can be used to fill time. However, Jordan did not investigate whether or not the VCR has taken over this function from the television set. It is interesting to investigate which functions are taken over by new ICT. For example, the computer may have a 'baby-sit' function. Furthermore, Jordan found that it is the mother who controls the VCR. She plans taping. Jordan is surprised by this finding since it runs counter to what was found in television research. However, she does not relate this finding to Family Systems Theory by investigating whether or not this is typical of 'normal' family functioning. We will examine the mother's role from a Family Systems perspective investigating whether or not the mother is the co-ordinator of general family life and family time. Perhaps she is the one that follows-up on all the activities of the different family members and maybe plans them on a calendar, as she does when she decides what gets taped and when. In addition, it will be interesting to investigate if ICT become major issues in family life which reflect family conflicts and relationships.

Jordan argues that we need to study the family as a whole in order to understand the media use by individuals. However, in her study she does not dig into this second layer. She does not indicate how an understanding of family's video use gives us an understanding into the video use by individuals.

Goodman described the way in which parents incorporate previous media experiences from their families of origin into their own family. This idea is related to Silverstone, Hirsch and Morley's concept of biographies. Family members have previous media experiences with media in their families of origin. However, as they move on in their own family they keep on creating technological biographies. Rogge and Jensen (1988:113) labelled this concept as 'media career'. Furthermore, families do also have biographies that are related to relationships, social relations, interaction, leisure, and all the other aspects of family life.

The research by Silverstone, Hirsch, and Morley emphasises the consumption of ICT. Especially why ICT are purchased and to what extent their meaning is shaped by the households. In this

theoretical framework households are seen as moral economies and household members as consumers. However, the notion of the consumer is a loaded term. It has negative connotations like greed, capitalism, and consumerism. In relation to the concept of the moral economy, it might be better to induce the concept of 'moral consumers'. Which indicates that the consumer searches to consume things that conform to his/her value framework. The researchers' aim is to investigate how households make sense of new technology. We propose deepening the concept of incorporation. Silverstone, Hirsch and Morley describe this as an investigation into the way in which technology is used in the home. In addition, we would like to investigate what sort of impact this use has on family life, concentrating on the fact that the household is a *moral economy*. Noticing that, the fact that the household is a moral *economy* is more interesting to consumer researchers.

With regard to the uses of technology, Silverstone, Hirsch, and Morley (1992) stress the importance of investigating spatial and temporal organisation. They argue that spatial and temporal boundaries are created by the processes of incorporation and objectification. However, Silverstone, Hirsch, and Morley do not investigate the nature of these boundaries. Moreover, they place emphasis on physical space. However, space is not only physical. The Internet, for example, has a specific content which can not be compared to television content. It is an interactive medium that is composed of different applications such as e-mail and chatboxes. The latter are perhaps more comparable to the telephone. Therefore, people can communicate with one another no matter where they are. As such they become loosened from their surroundings and find themselves in a virtual or symbolic space. As a result, ICT can also play an important role in the formation, destruction or maintenance of symbolic space. Due to ICT, symbolic space becomes more apparent and more important. This specific space and the implications of it for family life need to be investigated.

In conclusion, we would like to stress that Systems Theory is a metaphor that helps to get a grip on family life. However, it is not 'real' family life. It is a certain vision on family life that parallels other visions of family life. System Theorists acknowledge that it is just one point of view (Klein & White, 1996). Furthermore, we like to stress that our study does not deal with the question of whether or not families operate in a 'good' or a 'bad' way.

2.3. Summary and conclusions.

Previous research leads us to conclude that families must be studied as a whole, that a model of non-linear causation is best applied to study the implications of ICT for family life, and that the family must be studied in its social context. These three considerations are part of the basic

assumptions of Family Systems Theory. Therefore, we opt to base our theoretical framework on Family Systems Theory and focus on how the application of this theory in communication research can be advanced. Therefore, two basic assumptions are added. One based on Family Systems Theory: the family is considered to be an open social system. The other one is based on audience research insights: the family is living in a multimedia environment.

The assumption of wholeness and non-linear causation are also basic considerations for studies that used the Family Systems Theory for the investigation into media use at home (Goodman, 1983; Jordan, 1990; Silverstone, Hirsch & Morley, 1992). Furthermore, Goodman and Jordan stress the importance of studying rules with regard to media. Jordan relates this to the social domain of family life. Goodman's study is especially aggravated on family process. She investigates the process of rulemaking instead of just investigating the outcome of the rules. The family process has got three components: family structure, family undergoing development, and family adaptation. In each of these components family rules with regard to television are discussed. It is noted that television can play an important role in these processes.

While Jordan and Goodman are mainly interested in what happens inside the family, Silverstone et al. are mainly concerned with the exchange of technology meanings between the moral economy of the household and the public economy. The exchange of technology meanings occurs in four transactional phases: appropriation, objectification, incorporation, and conversion. Through appropriation the technology gets introduced in the household. Objectification and incorporation are two phases that are inherent to the internal household structure and change the meaning of the appropriated technology. Thereafter, the way in which people converse the meaning of technologies may lead for example, producers and advertisers to adjustments to certain technologies.

On the basis of Family Systems Theory and the integration of this perspective in communication research, we designed a theoretical model for our study of the implications of ICT for family life. The main elements of this model will be dealt with in the next two chapters. In accordance with Jordan we present a model based on reciprocal relationships. It should be noted that it is not within the scope of this investigation to analyse the effects of ICT content. Rather, the emphasis will be placed on the structure and density of ICT within the family context.

3. Theoretical framework: Exploring the system.

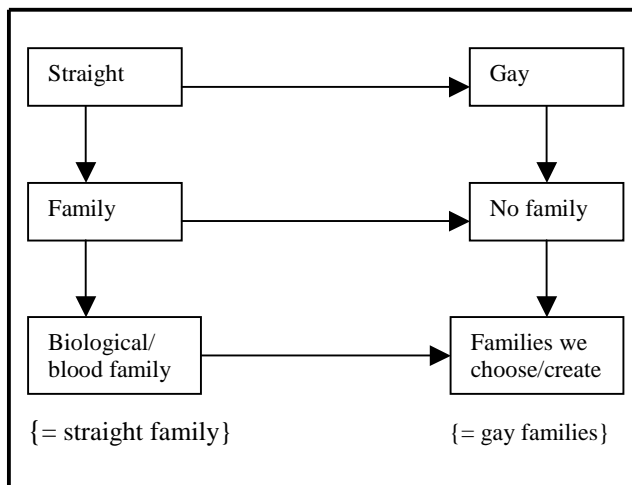
Our theoretical model emerges from the work by Goodman (1983), Jordan (1990), Silverstone, Hirsch, and Morley (1992) and the Family Systems Theory. We conceptualise the family as being a psychosocial unit consisting of a socio-technological structure (cf. Morgan, 1985; Silverstone, 1991) which is embedded in the wider social context. We acknowledge the emergence of the multimedia home and conceptualise ICT as embedded in everyday life. Our major goal is to come to a better understanding of the role these ICT play in everyday life as it is embedded in a larger context. The focus will be on the central relationship between the psychosocial and ICT-structure of the family system. In this chapter the emphasis is on the family system and the sub-systems that constitute the family system.

3.1. The family: What's in a name ?

Before, embarking on a theoretical view on the family it is essential to establish what is meant by it. When it comes to 'family' everybody unconsciously ascribes a meaning to the word (Trost, 1990). A meaning which most of us assume to be universal. However, researchers do not seem to come to a clear definition of this concept. Most of them adjust their definitions to the purpose of their research project. Sometimes the family structure of the participating families remains unclear (Kayany & Yelsma, 2000; Morgan, Alexander, Shanahan, & Harris, 1990). Therefore, it is practically impossible to compare research done in this area.

However, due to demographic changes, such as high divorce rates, another conceptualisation of the 'family' imposes itself. Indeed, it is worthwhile to take into consideration whether it is still significant to categorise families in demographic types like: single-parent family or nuclear family. Sociologists and communication researchers already indicated that family members do not necessarily define their family into these demographic categories (Brennan & Wamboldt, 1990; Silva & Smart, 1999). We should look behind the statistics and find out what families really think about themselves. An interesting line of thinking is to be found in lesbian and gay studies. Where Weston (1991) introduced a new way of thinking about the family concept. She starts of from the finding that lesbians and gays have problems fitting in a society where the traditional family concept includes a straight couple. As a result, lesbians and gays are faced with setting up their own support system that does not consist of 'blood' relationships. Therefore, Weston argues that the family concept should be broadened to the concept of 'families we choose' (Weston, 1991:28). An historical evolution that is charted out as follows:

Figure 3.1. : Ideological transformations of kinship.



Source: Weston, 1991:28

In this view, families are no longer defined by biological ties but by friendship ties. This parallels Burgess' view that the family must be conceptualised as a unity of interacting personalities instead of a unit of biologically related individuals (Burgess, 1972). However, Weston's model seems to lead to an opposition between straight families and gay families. In our point of view the concept of 'family of choice' would be even stronger and more meaningful when it is expanded to other perceptions of family life. It may well be that a family member says: 'According to the outside world (the statistics) my family is a nuclear family but I think that my family are my friends.' As Silva and Smart argue: "The identification of 'friends' as 'family' is not seen as a pathology but as a reflection of how the subjective meaning of family is changing and how individuals may be shifting their locus of intimacy and support away from kin towards other people" (Silva and Smart, 1999:9). Furthermore, a family does not even have to consist of human beings. Researchers, for example, already found that people indicate their pets as being part of their family (Trost, 1990). This broadens the meaning of the 'family of choice'. People are born into a certain family but that does not mean that they are stuck in it. Nowadays, they can choose to take part into another 'family', physically and/or mentally. For example, in most cases children depend on the family they are born into. They are not able to relocate to another family. However, in their mind they may belong to another 'family' unit consisting, for example, of themselves and their friends. Physically, they are member of a family system but mentally they are members of another 'family' system. This may be a way to keep the family system stable. However, it can also destabilise the original family system.

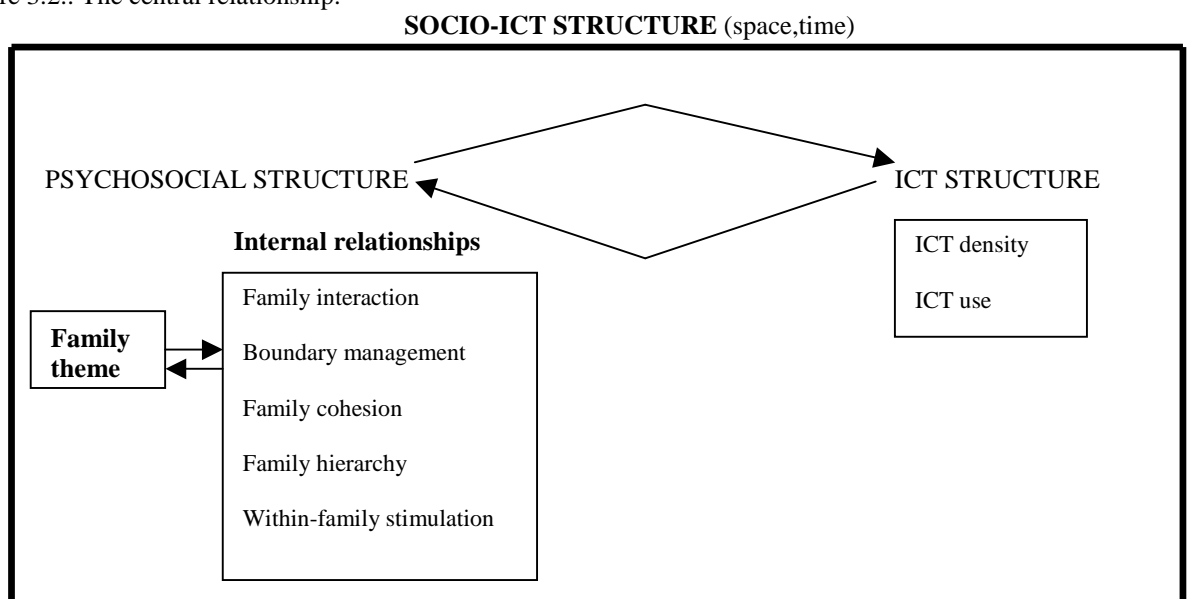
In conclusion, the 'family' is not a reality but a conception which arises from the mind of the family members. The problem with research into family life is that it always tries to capture the

family into distinct categories on the basis of socio-economic status and demographic factors. However, these categories are losing their importance. It is better to acknowledge that a family is a psychosocial construction made by the members of that particular family. In this regard, it may even be that individuals see themselves as living in two families or in no family at all while the objective demographic indices will indicate that they are a member of a certain family type.

3.2. The core theoretical model.

The core theoretical model is based on the assumption of a reciprocal relationship. Central in this model is the relationship between the psychosocial structure of the family and the ICT structure. It is a reciprocal relationship which is embedded in the family system and composes the socio-ICT structure of the family. A socio-ICT structure which is embedded in space and time.

Figure 3.2.: The central relationship.



Traditionally, social research on new ICT focused on the effects they have on society (Murdock, 1998). Researchers in this tradition are concerned with the dangers and threats that ICT pose to family life and children's development. The research question was: "What are media doing to the family?" (Himmelweit et al., 1958). This led to a technological determinism in which human factors or human influence is ignored (Winner, 1977). A view that recently re-emerged in public opinion due to concerns about a double movement of privatisation. Firstly, with the introduction of more and more media appliances in the family home, there is a belief that this will lead to a retreat of the family from the public sphere into the private sphere. Secondly, there is a concern about the fact that more and more children have media appliances in their own bedroom. It is feared that

family relationships and family interaction are on the decline (cf. Bontinck, 1986; Van Evra, 1998). However, opposed to this view, others argue that human and social factors mediate and control the timing of new ICT (social shaping) (Edge, 1995; MacKenzie & Wajcman, 1985). A view that is paralleled by the uses and gratifications tradition that argues that:

“A *systematic* study of what television provides, whilst not telling us what happens to people, will tell us what is available, what there is for them to use. If we have also studied the patterns of use and the relevant relationships, predispositions and background experience of those who use television, then it is possible for predictions to be made about the consequences of that use.” (Halloran, 1970:20)

Applied to the study of family’s media use, the question changes from “What are the media doing with families?” to “What are families doing with the media?” Researchers in this field indicate that families ascribe their own set of meanings to media appliances and search for their own way to incorporate and use them in the family home (Alexander, 1994). As Silverstone, Hirsch and Morley (1992) indicate: “technologies are both shaped and shaping; the balance between the two is both a matter for further theoretical but of course, also, empirical enquiry” (Silverstone, Hirsch, & Morley, 1992:26-27). In addition, we like to take it a step further by investigating what the implications are for family life of what families are doing with ICT. In line with Family Systems Theory we propose a reciprocal relationship. Reciprocal because the hypothesis is that not only does the ICT structure of a family have an impact on family life (technological determinism) but that the psychosocial structure of the family also has an impact on the families’ ICT structure (social shaping). However, we do not conceive this as a causal relation. It is a relationship between two structures that can be found in the family context. We do not believe in a cause-effect model but want to investigate the nature of the relationship.

Caution must be taken not to interpret this model as a static one. On the contrary, due to changes inside (changes in psychosocial structure and changes in ICT structure) and outside the Family system (changes in the environmental Socio-ICT structure) this model remains dynamic and the components will never cease to change.

3.2.1. The ICT structure of the family.

In many studies the definition of ICT is vague or non-existing (for example, Silverstone, 1995). In this respect an interesting approach is taken by Morrison and Krugman (2001). They argue that in family homes, media are physically clustered together on the basis of spatial placement and media type. Indeed, when most of us think about their own home, they will find the television and the

VCR standing together or the computer and the printer. As Morrison and Krugman put it: “Clusters were identified as logical groupings of technologies in the home in which a ‘main’ technology (either computer or television) formed the anchor around which associated technologies were organised” (Morrison & Krugman, 2001:141). They found that there was a ‘main’ television cluster and a ‘main’ computer cluster in most family homes. In their study they focused on these two main clusters.

The concept of physical media clusters is interesting when investigating media use because technologies in the same cluster are mostly viewed as a whole. However, we argue, with Morrison and Krugman (2001) that in most families there are more media clusters in the home than just the ‘main’ ones. Nowadays, families are more and more equipped with a second television set or a second computer perhaps in the child’s bedroom. Leading to secondary clusters that may be of the same importance than the main ones. Furthermore, there are more and more different media appliances in the home. As a result, clusters other than the television and computer cluster may be formed. It may, for example, well be that the family has an audio cluster in their living room with a CD-player, a radio maybe even a minidisk. Previous research already indicated that such audio clusters can be found in the children’s bedrooms. Especially, in teenagers’ bedrooms since they are pre-eminently occupied with music. We will map out the ICT cluster structure in the family home in order to come to a better understanding of ICT density and ICT use.

A Family Systems perspective provides a deeper insight into these ICT clusters especially when it comes to the nature of families’ spatial organisation. Futhermore, it will be interesting to see whether different ICT clusters are used by different family sub-systems or family individuals. In this case it may be a question of ICT access. Questions that emerge are: ‘Does ICT access depend on family hierarchy or on the way in which families manage their boundaries?’ ‘Does ICT density alter family interaction and family cohesion?’.

3.2.2. The psychosocial structure of the family.

As indicated in the previous chapter, families have to deal with five ‘essential processes’ of family life (Hess & Handel, 1967:12):

1. Establishing a pattern of separateness and connectedness.
2. Establishing a satisfactory congruence of images through the exchange of suitable testimony.
3. Evolving modes of interaction into central family concerns or themes.
4. Establishing the boundaries of the family’s world of experience.
5. Dealing with significant biosocial issues of family life.

Two of these, establishing patterns of separateness and connectedness (family cohesion/boundary management/family interaction) and establishing boundaries with the external world (boundary management), have become integral concepts for family practitioners, family social scientists, and family communication scholars (for example, Livingstone, 1999; Silverstone, Hirsch, & Morley, 1992). In addition, we would like to investigate how families deal with significant biosocial issues of family life (family hierarchy/within-family stimulation). These concepts give an insight into the internal relationships of the family. However, the most important concept under investigation is the ‘family theme’.

3.2.2.1. *The family theme.*

When it comes to family interaction with the social environment, Reiss (1981) pioneered in FST by combining a concept of symbolic interactionism (family members’ shared constructs) with a Family Systems concept (social environment) to create the concept of ‘family paradigm’. According to him the family paradigm is the worldview that is common to the whole family. Family paradigms differ along the dimensions of coherence (stable vs. intrinsic movement), integration (universal vs. particular), and reference (external vs. internal) (cf. table 3.1.).

Table 3.1.: The lines of reorganisation and the dimensions of paradigm.

Lines of reorganisation	poles	critical features
Coherence	Stable	belief in an underlying structure or order in the experienced world which remains fixed before, during, and after discovery; experience can be additive
	Mobile	underlying reality or force changes of its own volition; thus experiences are separated to serve as signals for detecting motion
Integration	Universal	belief that each member’s experience is shaped by universal phenomena and thus is accessible through empathy
	Particular	belief that the world has a different configuration for each member, and thus individual experience is inaccessible to others
Reference	External	the family’s experience of its world is anchored by coordinates whose origins lie outside themselves
	Internal	the family’s experience of its own solidity and/or centrality is the central orienting point in its experiential world

Source: Reiss, 1981:221

Table 3.1. points out that family paradigm is central to family experiences. In FST the family paradigm is mostly defined as the ‘family theme’ (Hess & Handel, 1972). Handel (1996) describes the family theme as “a central concern reflected in members’ thoughts, feelings, communications, and actions” (Handel, 1996:338). Or as Hess and Handel (1972 :18) elaborate : “A family theme is a pattern of feelings, motives, fantasies, and conventionalized understandings grouped about some locus of concern which has a particular form in the personalities of the individual members. The pattern comprises some fundamental view of reality and some way or ways for dealing with it. In the family themes are to be found the family’s implicit direction, its notion of ‘who we are’ and ‘what we do’.” In short, the family theme is the underlying ‘big idea’ on which families thrive. It forms families’ identity. For example, a family may have a family theme that conceives the family as a component of a larger social system to which the family unit has to contribute. As a result, social interaction will be of great importance to this family. Family members will be stimulated to participate in activities outside the family home and meet other people. When a family member retreats inside the family home and isolates himself/herself, it will be seen as a failure to meet the family objective.

As such, the ‘family theme’ concept gives an understanding of individual family members, their relationships, and the ways in which they interact with the external world. We can analyse these issues as expressions of the family theme. Therefore, the family theme will be derived from an investigation into family’s internal relationships and their relationships with the outside world. In addition, we will investigate how ICT use fits into the family theme. This can be of major importance for the way that families relate to ICT and the impact that they let them have on their family life. For example, is it something that in itself constructs the family theme or is it of less importance?

3.2.2.2. Internal relationships.

Patterns of separateness and connectedness.

In order to maintain family life, families need to establish a pattern of separateness and connectedness. This is a process inside the family system as well between sub-systems as between individual family members. It is the process of boundary management inside the family in order to obtain family cohesion. One of the main theoretical frameworks which operationalises the concept of family cohesion is the circumplex model developed by Olson, Sprenkle and Russell (1979). In this model families are differentiated along the lines of low or high family cohesion and low or high adaptability. This results in sixteen types of marital and family systems: chaotically disengaged, chaotically separated, chaotically connected, chaotically enmeshed, flexibly disengaged, flexibly separated, flexibly connected, flexibly enmeshed, structurally disengaged,

structurally separated, structurally connected, structurally enmeshed, rigidly disengaged, rigidly separated, rigidly connected, and rigidly enmeshed. Being inspired by family therapists, the aim of the model clearly lies in the separation of balanced from unbalanced families. In this view balanced families are more apt to cope with changes in the family life cycle. However, it must be noted that some families need more separateness or connectedness than others in order to maintain their family life. This does not imply that they are more healthy or unhealthy than other families. Therefore, we would like to stress that there is no such thing as a 'normal' family. Every family negotiates its own amount of family cohesion.

We will investigate the role of ICT in family cohesion. Building on Himmelweit's research (Himmelweit et al., 1958), the main question is: 'Do ICT keep family members together or do they keep them apart?' Leading us to several research questions: 'Are ICT a source for separateness or for connectedness?', 'Does not using or using one particular media appliance create more separateness or more connectedness?', 'Is this the main indicator for how ICT will be incorporated in family life?', and 'Are ICT used as tools in order to create separateness or connectedness?'

In Family Systems Theory, the amount of closeness and distance between the family members is defined by family rules. They also regulate how families allocate resources, and they determine the division of power within the family (Burr, Day, & Bahr, 1993). There are also family rules that relate to media use. In such cases rules can be implicit (latent) or explicit. Many rules are unclear, hidden, and inconsistently enforced (Lull, 1990). Buckingham (1993) tried to sum up possible rules concerning media use. There are rules about the time of media use, the duration, the content, and who can sit where during television viewing. Another rule may be about eating dinner while watching television or whether studying in front of the television set is allowed or not.

The amount of separateness and connectedness can also be linked to the concept of family interaction. How families communicate has been of interest to research fields as diverse as psychology, consumer research, and communication science (Carlson, Grossbart, Laczniak, & Walsh, 1994; Fitzpatrick & Vangelisti, 1995; Stafford & Bayer, 1993; Jarlbro, 1988). The most widely used theory is that of Chaffee and McLeod (1972). They adjusted Newcomb's co-orientation model (1953) in order to draw up a Family Communication Patterns (FCP) index based on two dimensions: socio-orientation and concept-orientation. According to Chaffee and McLeod socio-oriented families stress harmonious relationships between the different family members so that children are taught to avoid disturbances in the parent-child relationship. In concept-oriented families, on the other hand, children are encouraged to make up their own minds and are exposed to contrasting ideas. On the basis of this dyadic model, McLeod and Brown (1976) later on identified four main family types: the laissez-faire family (low concept-and socio-orientation), the

protective family (low concept-orientation and high socio-orientation), the pluralistic family (high concept-orientation and low socio-orientation), and the consensual family (high concept-and socio-orientation).

Lull (1980a,b) applied this dyadic model to an investigation into television use in the family context. As such, he acknowledged that different orientations with regard to family communication may create different outcomes with regard to the uses of television. His goal was to find out how individuals perceive their family communication pattern and relate this to the way they use television. He found more than thirty individual uses of television and divided them into two types: structural uses and relational uses. He then related them to the concepts of socio-orientation and concept-orientation and concluded that socio-oriented individuals were more likely than concept-oriented individuals to report they employ television for social uses. Furthermore, the amount of television viewing correlated positively with socio-orientation scores.

A number of researchers have indicated some theoretical and methodological problems with respect to the FCP index. The major methodological criticism was the fact that family communication was only studied from the parental perspective, while the children's point of view was often neglected (Austin, 1993b; Ritchie & Fitzpatrick, 1990; Tims & Masland, 1985). However, Chaffee and McLeod (1973) pointed out that the unit of analysis should be the family rather than one person per dwelling. As reported by Tims and Masland (1985), from the beginning of FCP research McLeod, Chaffee and Eswara reported that parents and children seem not to agree on the FCP index – a problem which was thought to be due to measurement unreliability. This conclusion was contested by Tims and Masland who found that it could well be that parents and children actually disagree about the FCP index. Research by Austin (1993b) even suggests that it would be very useful to conduct qualitative research in order to provide further insights into these 'within-families' differences.

Theoretically, Ritchie (1991) challenged the conceptualization of the FCP and especially the concept of socio-orientation, a concept that Chaffee and McLeod (1972) found to be positively associated with harmonious relationships. Ritchie (1991) drew up the Revised Family Communication Patterns (RFCP) index which was based on power assertion and supportiveness. In the RFCP control was related to socio-orientation and implied that children lack positive affect in negotiating. This dimension was labelled conformity-orientation. Supportiveness (labelled conversation-orientation) was related to concept-orientation. According to Ritchie it is this dimension that results in warm and harmonious family relations. The RFCP index has since been employed by other researchers (Austin, 1993a; Fujioka & Austin, 1999; Krcmar, 1996).

Up until today, the FCP and RFCP are widely used and examined but are also challenged by the changing family environment. Therefore, Livingstone and Bovill (1999a) applied another measurement of family interaction. They clustered their respondents (children and young people between the ages of five and eighteen) around variables measuring how families divide their time between shared and individual activities. As such they found six family types (Livingstone and Bovill, 1999a: Ch.10 Pg.16): distanced families (low on interaction), conventional families (families who eat together), all-round families (who eat, play and talk together), intimate families (families who talk about things that matter to the child), outward-looking families (families who discuss the news), and democratic families (families who make big decisions together). They related their six-fold typology to children's media use in order to indicate that the family interaction pattern is of importance to the way media are used. Children in intimate families were found to spend lots of time with their parents watching television and video, and playing computer games. In distanced families, children tend not to watch television with their parents. Moreover, if they play computer games it will be together with their friends. In all-round families children play computer games with family members. In conventional families television is usually watched together but these children usually play computer games by themselves. Outward-looking families are the ones where parents and children talk about the news and media in general. Democratic families share big decisions but there seems to be no link to their media use (Livingstone and Bovill, 1999b:32). In accordance with these researchers, we will investigate whether or not families do things together and what they do together.

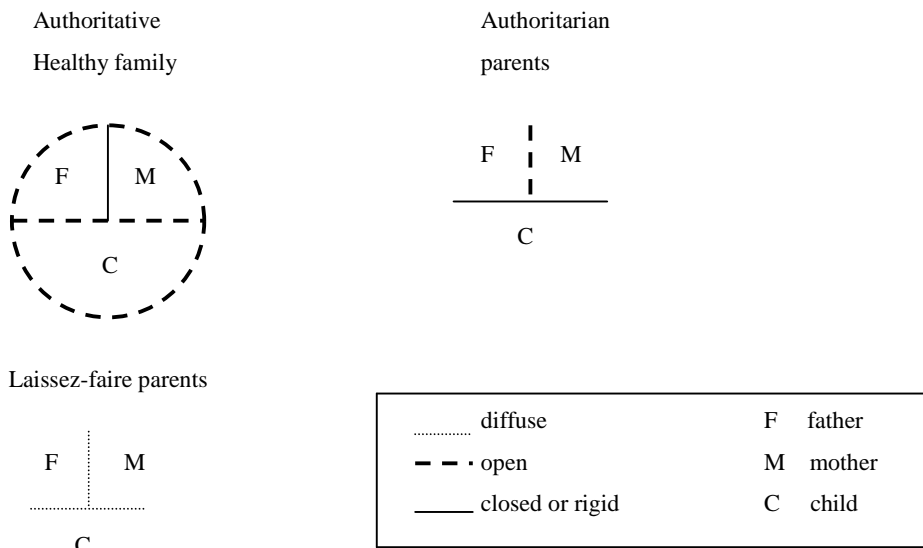
However, it must be noted that in their typology Livingstone and Bovill focus on the parent-child interaction pattern. It might be difficult to generalise these patterns to the whole family. Even more so because the data are collected from a sample of young children. In our opinion this does generate the children's perception of parent-child interaction but it is no measurement of family interaction as a whole. Perhaps finding a family communication pattern that fits the whole family is an utopia because different family members will have different perceptions of how their family communicates. A way to partly solve this problem is by applying qualitative research techniques.

Dealing with significant biosocial issues of family life.

In Family Systems Theory systems, supra-systems, and subsystems are classified hierarchically: supra-system, system, and subsystem. The family subsystems consist of the parent-child subsystem, the marital subsystem, and the sibling subsystem. The parent-child subsystem is the most studied one.

Within the family system, it seems that the concept of family hierarchy is closely related to the Family Communication Patterns of Chaffee and McLeod (1972). Withaker and Keith (1981) distinguish three types of family hierarchy: the authoritative style, the authoritarian style and the laissez-faire style. In the authoritative family both parents have fairly equal authority. There is space for a change of roles so the children can play ‘as if’ they were in an executive position. This results in flexibel family relationships. The authoritarian style does not allow children to give their own input in the decision-making process. The parents are the rulemakers. In the laissez-faire style, however, children can decide for themselves and parents take too little control. In figure 3.3., these styles are combined with the theory of family boundaries.

Figure 3.3. : Family hierarchy.



Source: Roberts, T.W. (1994: 10)

This model clearly has its origins in the practice of family therapy whereby family therapists find it very useful to investigate whether or not a family is ‘healthy’ or unhealthy’ or ‘functional or dysfunctional’. In this respect they indicate that a healthy family is characterized by an authoritative family hierarchy style (Roberts, 1994). However, our study does not involve a judgement about whether or not a family is healthy or unhealthy. Therefore, Roberts’ typology does not seem applicable to our research.

However, instead of talking about parental control, rules, and authority it may be better to look at ‘parental stimulation’ (Hess & Handel, 1972:22) and the lack of it as Hess and Handel argue:

“Families differ also in how the parents pace their children through childhood – whether they push, encourage, or restrain. Parents seek to shape their children in keeping with their own desire to achieve preferred experience. They stimulate the children in accordance with what they feel children should be, as a part of their activity in defining their world” (Hess & Handel, 1972:22).

Furthermore, in Family Systems Theory, family hierarchy was always conceptualised as a top-down design whereby the parents are at the top giving the orders and the children are the subordinates. As such, generations are seen as determining the family hierarchy (Roberts, 1994). This view is also one that has been adapted in audience studies for the study of parental rulemaking (Atkin & Lin, 1989; Krendl, Clark, Dawson, & Troiano, 1993; Kytömäki, 1998). In addition, we argue that the concept of ‘parental stimulation’ should be widened to ‘within-family stimulation’. Thereby, we acknowledge that parent-child stimulation is not a one-way direction. Building on the concept of ‘reverse modelling’ (McLeod & Brown, 1976:211) we argue that children can stimulate their parents and pass on their knowledge to their parents. A thought that is also found in communication research (Rogge & Jensen, 1988). Maybe reverse modelling is even more the case in new ICT. There are lots of children that know more about ICT than their parents. Siblings can also stimulate each other to work with ICT. This conveys with the family systems thought of interdependence. Every family member influences every other family member and vice versa. As a consequence, the following research questions are raised: ‘Does this create a shift in power relations inside the family system?’ and even more important and interesting: ‘Does this change the role that children play in the family system?’ In this regard, Morrison and Krugman (2001) suggest looking into the ‘expert’ function. They found that there is someone in the family who the other family members turned to when they needed help with the computer. They also pointed out that the expert can get frustrated helping the technological analphabetic family members. It is important to know who this expert is and how he or she became the expert: ‘Is this always the one who knows most about ICT?’, ‘Is the one that claims to be the expert also regarded as such by the other family members?’, and ‘Is the expert always a family member?’ It is also imaginable that this function is taken on by someone outside the family system. In such cases we will investigate the impact this has on family boundaries.

3.2.3. Spatial organisation and temporal structuring.

The central relationship under investigation is embedded in family’s spatial organisation and temporal structuring. Kantor and Lehr (1975) propose three basic family types: closed-type, open-type and random-type families. According to Kantor and Lehr all families strive to arrive at their end-goals, which they term the three target dimensions: affect, power, and meaning. The family

gains access to these end-goals via three access-dimensions: space, time and energy (cf. figure 3.4.). The way in which access is gained differs between the three family types.

Table 3.2. : family type and access dimensions.

TYPE	SPACE	TIME	ENERGY
Closed	fixed	regular	steady
Open	movable	variable	flexible
Random	dispersed	irregular	fluctuating

Source: Morgan (1985: 148)

The suggested family types are too strict since one of the basic assumptions of Family Systems Theory is that the family is an open social system. In this perspective, the closed-type family is a theoretical construct that does not exist in real life. As noted earlier, all families have a certain degree of permeability. Reiss (1981) also describes time and space as two fundamental resources that the family needs in order to conduct its day-to-day life and conserve the family paradigm. According to him, the experience of time and space is shaped by pattern regulators. He argues that “these are the regularly recurring behaviours by which families carry out their daily routine” (Reiss, 1981:232).

Table 3.3. : The role of pattern regulators in shaping the experience of time and space.

Attribute	Mechanism	Description
Time	orientation	time references in speech; household economy (e.g. savings vs. credit; career planning)
	clocking	the rapidity of experienced events; the degree of distinctness of these events
Space	boundary maintenance	establishing separation from the outside world; regulating entrances and exits across the boundary
	regulation of internal space	distance between members, privacy, etc.
	charting	the family’s evolving conception of the physical and emotional arrangements in its world. Family’s arrangement of internal space clearly reflects how it as a group conceptualises or understands the world outside the family.

Source: Reiss, 1981: 237

More recently, Silverstone, Hirsch and Morley (1992) indicated that the process of objectification (cf. supra) is related to family's spatial organisation while the process of incorporation is related to family's temporal structuring. Indeed, through objectification a technology obtains a space in the family home which reflects the meaning given to the appliance. However, they argue that equally important in the process of sense making is the fact that the appliance is put into a space which is already meaningful to the family. Therefore, the meaning of the appliance as well as that of the space is subject to changes. Incorporation is expressed in the household's temporal organisation. The way that technology merges into family's day-to-day patterns and routines. Furthermore, we add that spatial and temporal boundaries are created inside the family system as well as in relation to the outside world.

3.2.3.1. Spatial organisation.

From the beginning of the eighties researchers acknowledged the importance of studying the impact of television on spatial organisation (Lindlof & Traudt, 1983; Morley, 1986). The use of space has frequently been investigated by the Family Studies discipline which makes a distinction between physical and symbolic space (Morgan, 1996). Physical space can be defined as the architectural structure of the house in which the family lives. According to Wentling (1990) this structure can be either traditional or transitional. Traditional houses are privacy orientated, emphasizing separated and one-purpose rooms that are completely closed off from other rooms in the house. Transitional houses are less private, more open and community-oriented. Every house may contain both components.

Symbolic space, on the other hand, the concept which has been studied most often, refers to the meaning that families ascribe to the spaces in their home or in their environment; spaces which are guarded by boundary management between the public and the private. As such, Goffman's (1959) concepts of 'frontstage' and 'backstage' behaviour can be seen as aspects of symbolic space. 'Frontstage' behaviour is public and observable and defines the situation for anyone else present at the time. 'Backstage' behaviour is not always visible to the other persons present. Rasmussen (1997) indicates that when using 'older' media like books, newspapers, magazines, television and radio in the presence of another family member, frontstage and backstage behaviour mostly coincide since what we do is apparent to the other person present. What researchers are now beginning to find is that new ICTs, like the Internet, are blurring the boundaries between private and public space (cf. Meyrowitz, 1985; Frissen, 1992). Hence, while frontstage and backstage behaviour used to coincide, with the emergence of these new technologies, backstage and frontstage behaviour may become disconnected (Rasmussen, 1997; Gumpert & Drucker, 1998). For example, through telephone calls, Internet chat lines, and E-mail one can communicate beyond

place, thereby ‘disconnecting’ from our surroundings. As Rasmussen indicates, this is typical of a ‘virtual context’. The emergence of a virtual context, combined with an increasing density of media appliances, and especially ICT, in the home, has led to the emergence of a popular thesis postulating greater privatization and individualization within the home, leading to more and more social isolation both of the family as a whole and of its various members (Gottlieb & Dede, 1984 ; Vitalari & Venkatesh, 1988 ; Livingstone, 1998, 1999).

In this context we propose to adduce the concept of compartmentalisation. According to Gumpert and Drucker (1998: 431):

“The personalization of media technologies coincides with a design emphasis on separate places for separate functions and inhabitants that *partition* adults from children and men from women. The architectural style of the home and the positioning of media appliances in the home can therefore create different *compartments*.”

However, we argue that there are two types of compartmentalisation: physical and symbolic compartmentalisation. Physical compartmentalisation is a consequence of the architectural structure of the house (e.g. a child is separated from its parents when it is in his own bedroom while the parents are in the living-room). It is not a condition for symbolic compartmentalization. Symbolic compartmentalisation occurs when family members are mentally separated from each other and as such create their own private space. It is a feature of old as well as new ICT. McLuhan and Fiore (1967:50) already indicated that: ‘Printing created the portable book, which men could read in privacy and in isolation from others.’ However, new ICT add a dimension to symbolic compartmentalisation. Through new ICT it is possible to stay in a virtual context and interact with others in this virtual context while these interactions are unclear to other family members who are present in the same room. We will investigate whether or not ICT induces compartmentalisation. Furthermore, this concept will be introduced in a family systems approach by investigating if ICT’s role in compartmentalisation reflects general family functioning.

3.2.3.2. Temporal structuring.

Hall (1981) argues that time and space are related to each other. As anthropologist he investigated time use in different cultures (Hall, 1981). He identifies two ways in which people structure time: monochronic time use (M-time) and polychronic time use (P-time). “M-time emphasizes schedules, segmentation, and promptness. P-time systems are characterized by several things happening at once. They stress involvement of people and completion of transactions rather than adherence to preset schedules” (Hall, 1981:17). M-time use is linear whereby every action preferable is completed before starting another action. People who have P-time usage can do several things

together which might seem chaotic to people with M-time usage. Communication researchers related these concepts to gender. They came to the conclusion that women are more likely to structure their time polychronic. Women are more used (some argue even more apt) to doing different things at the same time. This proved to be so for television viewing (Morley, 1992). One of the well-know examples is that of the woman who is ironing while watching television. Men, on the other hand, do not seem to be so capable in doing several tasks at the same time. They need to be concentrated on doing one thing at the time. It will be interesting to investigate whether or not this feature holds up in relation to new ICT use.

Bryce (1987) applied Hall's temporal characteristics to families and family viewing behavior.

Table 3.4. : Hall's temporal characteristics of cultures as applied to families and family viewing behavior.

Monochronic	Polychronic
Family temporal behavior	
Linear and sequential organisation of activities	Multiple concurrent activities
High planning and scheduling	Low planing and scheduling
High emphasis on clocks and calendars	Low emphasis on clocks and calendars
Closure oriented	Process oriented
High emphasis on promptness	Difficulty in meeting pre-set schedules
Family viewing behavior	
High planning and scheduling of television viewing	Little or no planning or scheduling of television viewing
Television watched between other activities	Television serves as 'clock' for other activities
Television viewing as singular activity	Television viewing as one of several concurrent activities
Close visual attention to television	Intermittent or sporadic attention to television

Source : Bryce, 1987:130

According to Bryce time use is related to social values, which can change over the years, as do time orientations (Berk & Berk, 1979). It is also possible that values and time orientations are different to different family members. Sometimes there is a monochronic time orientation on the family level and a polychronic time orientation on the individual level. However, usually it is a mixture of both. Some families are more polychronic and others more monochronic. Therefore, it will be interesting to investigate how children structure their time. Since these are the family members that seem to be forgotten in studies about families and time use. In a family systems perspective it will be interesting to investigate the different ways in which subsystems and individuals structure their

time within the family system and influence each other. This may create an insight on why some ICT are generally regarded as being disruptive for family life. For example, when we look at video game playing. Parents might find it annoying that their children play these games. However, it can be imagined that the playing of video games disrupts family life in a very specific way because video game playing, structures children's time and therefore may run counter to temporal structuring in the rest of the family and/or the preferred parental temporal structure.

In accordance with Jordan (1992) we would like to point out that Hall's dichotomous structure may overlook a continuum of families' temporal structuring abilities that lies between monochronic and polychronic. In this perspective, it is important to investigate how families value their time. Do they see it as something precious that must be spend in the most optimal and intense way or do they see it as something that is abundant. Jordan (1992) found the first to be true for upper-middle and middle-class parents. Furthermore, in those families, television viewing seemed to be an activity that was compared to other activities as being a bad way of spending precious time. Parents in lower SES categories were more neutral and did not consider the television as a waste of time nor did they see it as something very beneficial.

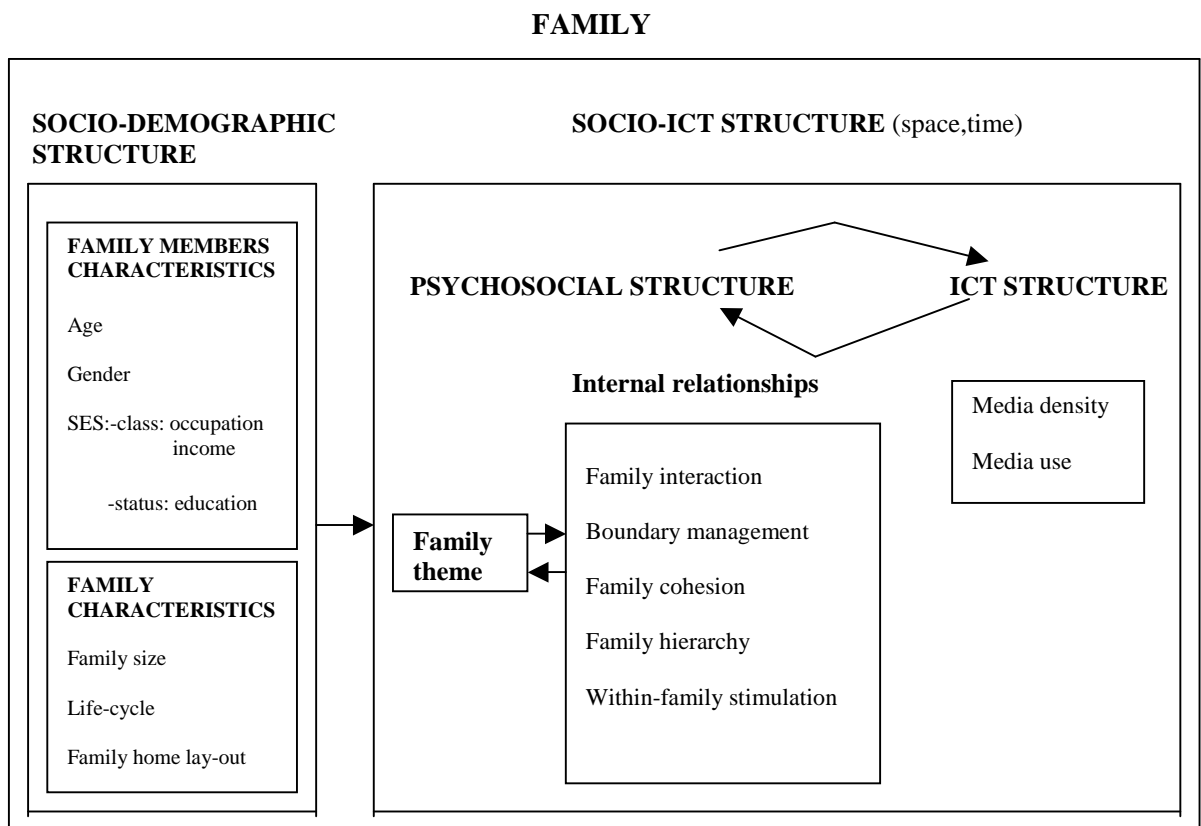
Furthermore, studies into the role of television in family life found that the set is often used as a tool for temporal structuring. As such, television becomes integrated in certain family rituals such as bedtime rituals (children must go to bed after viewing a certain programme), morning ritual (children watch their favourite programme before going to school), and meal time rituals (families watch the news while eating dinner) (Lull 1980b). Jordan (1992) found that this was especially true in middle- and upper-middle-class families.

Another feature of temporal structuring is the organisation of 'family time'. This is the time that family members spend together. Generating questions such as: 'Is 'family time' planned or does it happen randomly?' and 'What does it mean when your 'family time' is planned?' The use of ICT can be related to 'family time' inducing questions such as: 'Do ICT increase or decrease family time?' When relating this to Family Systems Theory, questions may be: 'Does 'family time' have an homeostatic function for the family system?', 'Does ICT use lead to more or less time spend together by certain subsystems in the family?', and 'How does this influence the family system and other family subsystems?' However, 'family time' should not be overromanticised (Daly, 2001). It is not so that all families should start playing round games whenever they have some time to be together.

3.3. The socio-demographic structure of the family.

In accordance with Morley (1992) we argue that research into the role of ICT in the family should take into account the household structure as an important factor. He acknowledges, for example, that family size can have an important influence on how family viewing occurs. We like to extend this notion by introducing the socio-demographic structure of the family in our study. Even more so because previous research into new ICT shows that the socio-demographic structure contains important background factors that have implications for families' ICT structure (cf. infra).

Figure 3.4. : The socio-demographic structure of the family in relation to the socio-ICT structure.



The socio-demographic structure of the family is composed of family members' characteristics (age, gender, and Socio-Economic Status (SES)) and of characteristics at the family level (family size, family life cycle, and family home lay-out).

3.3.1. Family members characteristics.

3.3.1.1. Age

We argue that due to the introduction of new ICT such as the Internet 'age' is no longer an important discriminating factor of analysis. In this context we like to introduce the concept of 'ICT

generations' which is partly based on Gumpert and Cathcart's (1985) description of 'media generations' (Gumpert & Cathcart, 1985:33). They argue that via media, new human groups are constructed. They emphasise the fact that people form groups according to their level of media literacy. Meaning that media generations are then formed because people speak and understand the same media language. Furthermore, in the new media environment, media generations are not dependent on 'locale' as Gumpert and Cathcart (1985:32) argue:

“The newer computer-medium connection continues to shift concepts of time and space. Territory can become a matter of connection, independent of place. Physical locale loses much of its primary importance in creating interpersonal networks when people can live in ‘media communities’”

In addition, we would like to point out that people who are connected in 'media communities' are not necessarily of the same age. They form 'ICT generations' which are based as well on interest in and knowledge of ICT (as described by Gumpert and Cathcart) as on the sharing of other interests. This induces the question whether or not these alliances are based only on ICT interest or pre-exist in other interests and are only strengthened by ICT. For example, by entering a chat box about pets, people may share their interests in pets with other pet lovers. Furthermore, this concept may give an insight into family dynamics. When we put this into the perspective of our theoretical framework we can talk about 'ICT subsystems' which are formed inside the family system and are subsystems based on interests. The fact, for example, that father and son are interested in computergames may bring these two different generations closer together so that they understand each others values, norms and interests and as such form an ICT subsystem inside the family. An ICT subsystem with its own values and norms perhaps not understood by the other family members. ICT generations can also be created with the supra-system.

In addition, we relate the concept of ICT generations to that of 'the family of origin' (Goodman, 1983). Because computers were not available in the family of origin of most parents this may explain the existence/emergence of ICT generations. Parents do not have a preconceived opinion over these appliances. So maybe it is easier for them to accept the way their children use these new ICT than the way they use television. It is imaginable that parents who need to discover this new technology become sympathetic towards these new appliances. As a result, they may become interested in what their children do with ICT.

When placing the ICT generations concept in a Family Systems Theory perspective, it will be interesting to find out whether or not these generations have a homeostatic or homeogenesis function.

3.3.1.2. Gender

It is not clear whether or not gender is an important factor in ICT consumption. As Ang and Hermes (1991) argue: “We cannot presume, *a priori* that in any particular instance of media consumption, gender will be a basic determining factor” (Ang & Hermes, 1991:308). A point of view shared by Dutton, Rogers and Jun (1987). However, others found that there are significant relationships between gender and ICT use (cf. Roe, 1998). A relationship that clearly depicts women as ICT illiterates, with men in control of the remote control device (Walker & Bellamy, 1993), as well as the computer and the videogames (Gray, 1987; Haddon, 1988; Haddon, 1992). Furthermore, economic indicators show that men generally spend more money on ICT than women and the decision to buy such appliances generally lies with the male (Gray, 1992; Harvey & Rothe, 1985; Hellman, 1996; Lindlof, Shatzer, & Wilkinson, 1988; Moores, 1996b). Sanger (1997) even pointed out that children perceive females as technologically less competent. It has also been found that women do not know how to operate ICT (Gray, 1987). However, studies are contradictory on that point. Indeed, women do not seem to have any problem operating for example, a dishwasher, why then should there be problems with ICT (Morley, 1992) ? It is strange that women are able to read manuals that come with household appliances but are not able to read the ones that come with ICT. That this is a misconception is proved by studies into the ICT use of single women. They proved to be very capable when it comes to operating ICT (Gray, 1992; Sanger, 1997). In addition, Jordan (1990), for example, found that the mother seems to be the one that operates and programs the VCR.

Women and men have different perceptions with regard to ICT. Livingstone (1992) investigated gendered talk about: the necessity, functionality, sociality, privacy, and control of technologies. With regard to necessity, she found women to talk explicitly about the importance of ICT in their lives. Women seemed to refer to household technologies as technologies that make their day-to-day lives more comfortable. This indicates that, for them, home is a place to work while for men, home is a place for leisure and relaxation (see also Frissen, 1992) . When talking about functionality women again talk about the function of technology in their daily lives. For women, the object has to be useful while for men the meaning of a technology seems to lie within the object. Furthermore, women regard ICT as a facilitator of social contact while men see it as a substitute or alternative for social contact. Women also use technologies to keep things under control while men use them to exercise control.

3.3.1.3. Socio-Economic Status

Researchers often use occupation and/or income and /or education as indicators of SES. Following, Rosengren and Windahl (1989) we divide SES into class (occupation and income) and status (education).

Studies of personal computer diffusion already found social status to be a consistent predictor of adoption and use (Dutton, Rogers, & Jun, 1987). Similarly Livingstone, Holden, and Bovill (1999) have found this also to be true for Internet access at home. Furthermore, Roe (2000) found that mother's educational level is a strong indicator of the amount of time children spend with TV. It will be interesting to move further in this direction and investigate how mother's educational level influences ICT use in the family system.

3.3.2. Family characteristics.

3.3.2.1. Family size

We make a distinction between families with and without children. Researchers indicate that children play a major role (Van Rompaey, Roe, & Struys, 2002; Smet, Van Rompaey, & Roe, 2002). Thus, Haddon (1992) found that, when a family decides on the purchase of new ICT, it anticipates the effects that this is likely to have on family life and the question of what is likely to be the best for the children is one that is frequently posed. Similarly, Hellman (1996) has noted the importance of pressure from children for the acquisition of a VCR, a finding reinforced by the fact that families with children were overrepresented among early adoptors (Gunter & Wober, 1989; Lindstrom, 1989).

3.3.2.2. Life-cycle

Most families go through different stages in their family life. The premise of family life cycle research has always been that the family goes through successive developmental stages (Dimmick, McCain, & Bolton, 1979). However, in the industrialised world, and especially in the big cities, the nuclear family consisting of parents and their biological children is no longer the dominant mode of cohabitation. There are more and more single parent families. Parents who divorce increasingly remarry, leading to complex step-parent, step-child, and step-sibling relationships (Glick, 1989). The implications are that one may move backward and forward between different life stages.

The socio-ICT structure of the family is dependent on the family life-stage. The life-cycle concept again emphasises the fact that families are dynamic. They are constantly changing and evolving.

The socio-ICT structure of a young couple with a baby will have changed dramatically by the time the child leaves the home. This again illustrates the fact that the family cannot be studied as a static unit. For example, external influences on family members, which may cause changes to the family system, are more likely to be moderated by parents when the children are young (Loukas, Twitchell, et al., 1998). This is also true with regard to media appliances. In families with younger children parental influence will be more substantial than peer influence. As children get older they strive for more independence and orientate themselves towards their peers (Suess et al., 1998).

The focus in communication research is primarily placed on the family with children. However, inside this group divisions between different life stages are seldom made. Most research concentrates on ‘children’, ‘the young’, teenagers’, ‘families with children’ without recognising that a family with children between the ages of two and ten is different from one with children between the ages of ten and fifteen. Because of time pressures it is not in the scope of our research to investigate every stage in the family life cycle. However, we acknowledge the fact that we have studied families in a certain life stage and therefore our results are not generalisable to all families.

3.3.2.3. Family home lay-out.

We introduce family home lay-out as a measurement of status. The family home is regarded as the primary biotope of each family member. It is of importance to know what the home looks like and in what sort of neighbourhood it is implemented in order to have a supplementing idea of family status.

3.4. Summary and conclusions.

Demographic changes and a lack of coherent conceptualisation of ‘the family’ lead us to conclude that another conceptualisation of the ‘family’ imposes itself. We introduced the concept of the ‘family of choice’. We argue that it is important to investigate how family members perceive the family. Their perception may differ from demographic categories. As a result, a family is not exclusively based on blood relationships but on the perception of the family member.

On the basis of Family Systems Theory and the integration of this perspective in communication research we designed a theoretical framework. In this framework the family is conceived as a psychosocial unit consisting of a socio-ICT structure which is embedded in the wider social context. The central relationship under investigation is that between the psychosocial structure of the family and the ICT structure of the family. This reciprocal relationship composes the socio-ICT structure of the family.

The ICT structure of the family consists of an investigation into ICT density and ICT use. Special attention is given to the clustering of ICT. In relation to the psychosocial structure of the family, the essential processes are discussed. The most important concept under investigation is the 'family theme'. Families have a general theme that underlies all their actions and behaviours. It is the way in which they conceive themselves and the outside world. The 'family theme' concept gives an understanding of individual family members, their relationships, and the ways in which they interact with the external world. Firstly, in through their internal relationships families need to establish a pattern of separateness and connectedness in order to maintain family life. Meaning that families negotiate an amount of family cohesion through boundary management and family interaction. Secondly, families have to deal with biosocial issues of family life. This is related to concepts of power and control and family rules. We propose to study within-family stimulation instead of family rules. But families also establish boundaries with the external world. This type of boundary management will be investigated in the following chapter. The internal relationships of the family and their relationships with the outside world are analysed as expressions of the family theme.

The reciprocal relationship between the psychosocial structure and the ICT structure is embedded in family's spatial organisation and temporal structuring. Not only physical space but also symbolic space will be investigated. With the introduction of a virtual context in the family home, the latter seems to become more and more important. Furthermore, ICT may be a tool for temporal structuring but the way in which families structure their time may also influence ICT use and meaning.

When investigating the implications of ICT for family life, the family's socio-demographic structure must be taken into account. This structure consists of family members characteristics (age, gender and SES) and family characteristics (family size and life-cycle). We argue that ICT abolishes age differences by creating 'ICT generations'. Furthermore, it remains to be investigated whether gender is still an important factor in ICT consumption.

The leading idea behind our research is an investigation into the way in which ICT use reflects general family functioning. In the next chapter we discuss how the family system relates to the supra-system and how it is embedded in the social context.

4. Theoretical framework: Exploring the supra-system.

The family system is embedded in a supra-system. This contextualism can be found in the work of Silverstone, Hirsch, and Morley (1992) but is also one of the basic assumptions of the Family Systems Theory. As such, our theoretical framework is fully completed by integrating the family system into the family environment and into the social context.

4.1. The relationship between the system, other systems, and the supra-system.

As discussed in the second chapter, according to Family Systems Theory, families are discussing their boundaries with the outside world. They regulate family members' experiences with the outside world (Hess & Handel, 1967). Experiences from outside the family may cause problems when they enter the family system. Researchers already noted that relationships with the extended family can create disturbances in the family system (Cox & Paley, 1997). Some families can be very close to their extended family while others are not connected to their extended family or are only close because of interference by the extended family. However, we argue that it is not sure whether or not all family members observe this intrusiveness in the same way. Maybe some family members are rather happy because the extended family is so 'close' to them.

In addition, new experiences family members have outside the family system are introduced in the family system. Here again the family engages in boundary management and it has to established to what extent the family system will tolerate new experiences. We argue that ICT is a new experience that may be brought into the family system from the outside (see also Silverstone, Hirsch, & Morley, 1992). The process of boundary management then determines how much of this experience is let into the family and in which way. Families, for example, may accommodate the computer as they did when they bought a television. However, they can also set other boundaries when dealing with this new appliance.

Furthermore, the emergence of new ICT such as the Internet and e-mail does create a whole other challenge to family boundaries. In this regard Morrison and Krugman (2001) argue that "one artifact of this external communication is that it reduces the physical (and potentially social) boundaries imposed on social contacts and facilitates interactions irrespective of geography, religion, and nationality" (Morrison & Krugman, 2001:137). In this case it is the virtual context that is a challenge to boundary management. As a result, we argue that, boundary management will become more difficult and complex. Parents for example, do not always know what their children are up to via the Internet. In addition, we would like to point out that ICT are perhaps not only causing boundaries to change. They may also be used by the family to safeguard boundaries or to

deliberately abolish them. Therefore, It will be interesting to investigate what the implications of boundary management are for the ways in which families incorporate ICT and whether or not they are permitted to change family life.

4.2. Exploring the supra-system: The family environment.

As noted earlier, the family environment is of importance both in Family Systems Theory and in the audience research tradition. Silverstone, Hirsch, and Morley (1992) talk about the economic, social, and cultural structure in which the moral economy of the household is enacted. However, in our opinion the ICT-structure of the environment is also an important influence on the family. As such, social entities that make up the family environment are not only ‘social’ but do also consist of an ICT structure. The direct environment of the family system consists of: the socio-ICT structure of organisations in which family members participate (e.g. youth movements), the socio-ICT structure of the extended family and the socio-ICT structure of the community (e.g. friends, neighbourhood).

That the sociocultural setting might be an important factor in the adaptation of new ICT is suggested in social comparison, consensual validation and social learning theory (Steinfeld, Dutton, & Kovaric, 1989). The social comparison theory states that individuals are influenced by the attitudes, beliefs and behaviours of a particular group with which they identify. The consensual validation theory suggests that social definitions of reality will be more persuasive than other modes of persuasion (such as the information provided by an expert); while social learning theory argues that individuals imitate the attitudes and behaviours of other individuals. Their behaviour is then reinforced by the other individuals. As such, chances increase that these behaviours and attitudes are repeated by the individual. As a result they become a part of the individual’s set of attitudes and behaviours.

Research shows that the sociocultural setting is important for the adoption of new ICT. The network of friends and co-workers can have an influence. Murdock, Hartmann & Gray (1992) found that social contacts are an important factor for computer use. Dutton, Rogers and Jun (1987) also concluded that social networks are important in understanding the diffusion of innovations in a social system. Adopters who become more involved in a social network increasingly integrate their personal computer in their lives by employing it more hours per week and for a greater variety of applications. Furthermore, peer influence can be big on children. As well peer stimulation as peer pressure. In order to belong to a certain group it might be important to have a certain media appliance or at least to be able to talk about it (Jordan, 1990).

We argue that the ICT structure of the extended family is also an important influence (e.g. Harwood, 2000). Although up until now this has not yet been researched much. We derive this argument from Goodman's notion of the 'family of origin' (cf. supra). A notion that is especially applicable to parental attitudes towards ICT. Parents create a new family where they insert the values, norms, rituals and customs of their family of origin. Indeed, we can imagine that a parent, who did not have a television set in his bedroom in his family of origin, regards it as problematic when his/her children want a set in their bedroom. Therefore, we argue that parental rules and within-family stimulation with regard to ICT are negotiated via the family of origin's rules and level of within-family stimulation.

When a change in the family system presents itself, families can turn to themselves for support and help but they can also turn to the outside world and search for help from, for example, the extended family, friends, and peers (Loukas, Twitchell, Piejak, Fitzgerald & Zucker, 1998). We therefore argue that the family system will also seek support when it comes to perturbations in system functioning due to ICT. Moreover, ICT themselves create new ways for finding outside support. Not only in a situation where ICT are causing perturbations but also when other factors like, for example, changes in family composition pose problems to the family unit. For example, picture a family where one of the children dies. Instead or next to help from friends and extended family, the family can turn to internet support groups to find a new balance. As such, ICT can have an important role as a stabilising factor in the family system.

4.3. Exploring the supra-system: The social context.

It is not in the scope of our research to engage in a macro-study of the Flemish social context. The following discussion gives a general indication in order to be able to place the Flemish family in its wider context. Therefore, it aims at giving an insight into the Flemish family structure and ICT ownership in Flanders.

4.3.1. Family structure.

The structure of the family in contemporary society is changing fundamentally. In the industrialised world, and especially in the big cities, the nuclear family consisting of parents and their biological children is no longer the dominant mode of cohabitation. There are more and more single parent families. Parents who divorce increasingly remarry, leading to complex step-parent, step-child, and step-sibling relationships (Cliquet, 1996; Hantrais & Letablier, 1996; Matthijs, 1993). The last census in Belgium dates from 1991, a follow up was planned in 2001. One of the problems with

these censuses is that the National Institute for Statistics (NIS) uses households as the unit of investigation. However, there is a difference in the meaning ascribed to the 'household' concept and the 'family' concept. The NIS defines a household as 'consisting of a person who usually lives alone, or consisting of two or more persons, whether or not related to each other, who usually live together in the same house' (NIS, 1999:3). As such, a household can be seen as an economic construction. However, the 'family' concept mostly involves that the persons in a family are related to each other. The following discussion presents an overview of the most relevant demographic data with regard to the Flemish household situation.

4.3.1.1. Household size.

The average household size in Flanders evolved from 3,14 persons/household in 1970 to 2,45 persons/household in 2000 (NIS, 2001a). This reduction is due to two factors: firstly, the increase of single person households and secondly, the decline of large households. In 1999 26,89 percent of the households were single person households, 32,80 percent consisted of two persons, 17,71 percent of three persons, 15,30 percent of four persons, 5,23 percent of five persons, 1,40 percent of six persons, and almost one percent were households consisting of seven persons or more (NIS, 1999). Most of the Flemish households consist of at most four persons. Households with four or more children are on the decrease (Cliquet, 1996). Young children typically live in a household together with one or two siblings. 36,9 percent of children under the age of three are an only child and 43,3 percent has got one sibling. In the age group between two and seven years old 12,6 percent was found to be an only child and 53 percent has got one sibling. 44,7 percent of the children between 6 and 12 years old have got two or more siblings (Buysse, 2000).

4.3.1.2. Household types.

When comparing the 1991 census data with more recent material several trends in household types emerge, namely:

- * The decline of the nuclear family
- * Cohabitation as a prelude to marriage
- * The increase of the single parent family
- * The emergence of the 'hotel family'

Table 4.1. : Private households in Flanders.

Household type	Number		Percentage	
	1991	2000	1991	2000
Non-family households				
Single men	220 020	291 223	10,0	12,2
Single women	308 175	360 944	14,0	15,1
Others	64 463	107 793	2,9	4,5
Households with 1 family core¹				
Married couples without children	553 110	596 503	25,1	24,9
Married couples with unmarried children	868 304	793 614	39,4	33,2
Single fathers with unmarried children	34 451	54 512	1,6	2,3
Single mothers with unmarried children	134 264	167 567	6,1	7,0
Households with 2 or more family cores	19 184	18 642	0,9	0,8
Household type unknown	1067	896	0,0	0,0
Total	2 203 038	2 391 694	100,0	100,0

Source: NIS (2001)

The data in table 4.1. indicate that the nuclear family is on the decline. In 1991 39,4 percent of the households consisted of this type, in 2000 this already had declined to 33,2 percent. However, we must note here that the NIS defines 'couples' as being 'married couples'. This perhaps explains the decline. More and more couples, even with children, choose to cohabit and they are not represented in the data.

It is difficult to measure the amount of couples that cohabit in Flanders. It is estimated that some six or seven percent of the population over 15 years cohabits. This number has been relatively stable during the last ten years. The estimations are higher for Belgium as a whole. However, cohabiting has increased significantly in a short period of time in the age group between 15 and 26 years. In 1998 60 percent of all couples in this age group cohabited. In 1993 this was only 30 percent (Ministerie van de Vlaamse Gemeenschap, 2000). However, this does not mean that the marital state is vanishing. On the contrary, most of the couples that start of cohabiting end up married after a while. Most couples consider cohabitation as a prelude to marriage (Corijn, 1994).

Table 4.2. indicates that most of the children under 12 years old are still living in a household with two parents. Moreover, most of these children are living with their biological parents who are married to each other (see table 4.3.). However, the same table indicates that the single parent family is on the increase. In 2000 2,3 percent of the households consists of a single father with his unmarried children (1,6 percent in 1991) and 7 percent of a single mother with her children (6,1

¹ A family core consists of a (legally) married couple with or without unmarried children or of a father or mother with one or several unmarried children (as such a family core can be just a part of a household).

percent in 1999). Furthermore, the number of children under three years old that lives in a single-parent family is 4,2 percent; this is 4,4 percent in the age-group two until seven years old and 5,6 percent in the age group between 6 and 12 years. Most of these families are formed by a mother and her children, because mothers are still most likely to get custody of their children in case of a divorce.

Table 4.2.: Children under 12 years by household type (percentages).

Household type	Children < 3 years	Children 2-7 years	Children 6-12 years
Single parent household	4,2	4,4	4,9
Two-parent household	95,8	95,6	95,1
Total	100,0	100,0	100,0

Source: Buysse, 2000

Table 4.3. : Children under 12 years: Household arrangements.

Household arrangement	Children < 3 years	Children 2-7 years	Children 7-12 years
Married couple/biological parents	84,9	89,9	89,7
Married couple/biological father/non-biological mother	0,0	0,0	1,5
Married couple/biological mother/non-biological father	0,0	0,3	0,5
Married couple/non-biological parents	0,0	0,9	1,1
Cohabiting couple/biological parents	9,8	3,2	0,4
Cohabiting couple/biological mother/non-biological father	0,0	1,0	0,9
Cohabiting couple/biological father/non-biological mother	0,8	0,0	0,0
Cohabiting couple/non-biological parents	0,0	0,0	0,0
Single parent (biological mother)	4,0	3,9	5,2
Single parent (biological father)	0,2	0,5	0,4
Multiple generations/parents and grandparents	0,3	0,3	0,3
Total	100,0	100,0	100,0

Source: Buysse, 2000

One of the more remarkable findings of the 1991 census was the fact that a substantial amount of unmarried men between 24 and 29 years old still resided with their parents in the parental home. It is a Euro-wide phenomenon (Cordón, 1997) which creates the so-called 'hotel family'. In 1999 this was true for 28,59 percent of the Belgian men between 24 and 29 years old, in 1981 this was only 15,12 percent (Merenne, Van der Haegen, & Van Hecke, 1997). This is due to economic factors and higher education. For the period 1991-2011, further growth is expected (Deboosere, Lesthaeghe, Surkyn, Boulanger, & Lambert, 1997).

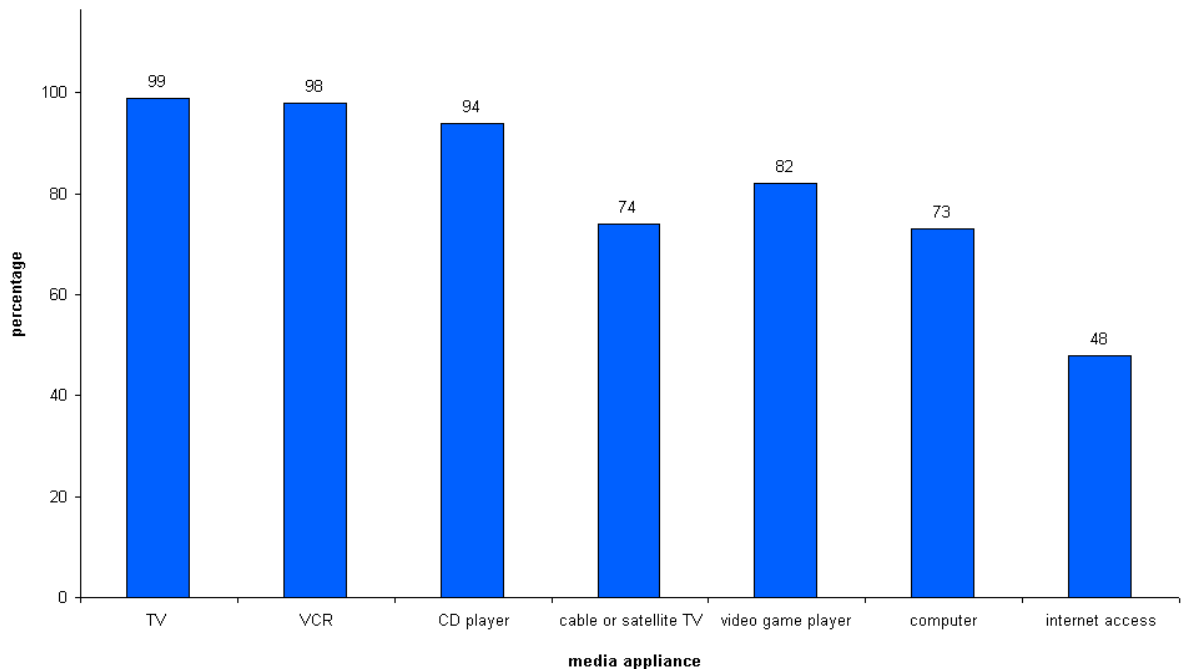
Since the eighties a new household type is emerging, the compounded family. These families are formed by remarriage (or cohabitation). Formerly people also remarried but mostly after being widowed. Nowadays, one remarries (or cohabits) after a divorce. In Belgium, it is estimated that their amount increases every year by 8000 (Matthijs, 1993).

For Belgium the prognosis is that “The decline of the group ‘married with children’ in the age bracket 20-39 at first benefits the growth of cohabitation and of lone parent households, but subsequently the latter groups stagnate as a result of declining cohort sizes and further growth of single person households or prolonged residence in the parental household”(Deboosere et al., 1997).

4.3.2. ICT ownership.

Data from the Kaiser Family Foundation (Roberts, Foehr, et al., 1999) indicate that the television set now is a permanent feature in almost every American household (99 %) (figure 4.1.). The VCR, as a television linked appliance, is also well settled in (98 %). The computer (73 %) is also on the rise in the family home as well as the Internet connection (48 %).

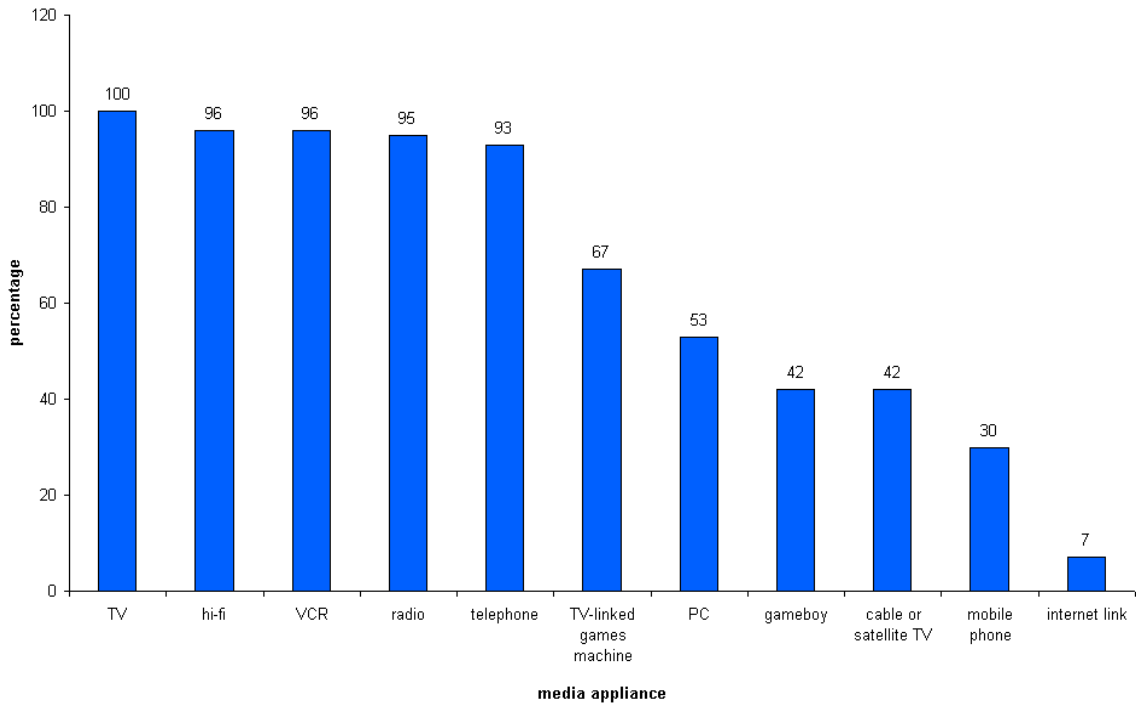
Figure 4.1. : Percent of American children between seven and eighteen years old who live in homes with....



Source : Roberts, Foehr, Rideout, & Brodie, 1999:10

However, a comparison between the American situation and the European one is needed. Therefore, figures from a study by Livingstone and Bovill (1999) are introduced. They studied the media access of British children between 5 and 18 years old.

Figure 4.2. : Percent of British children between five and eighteen years old who live in homes with...



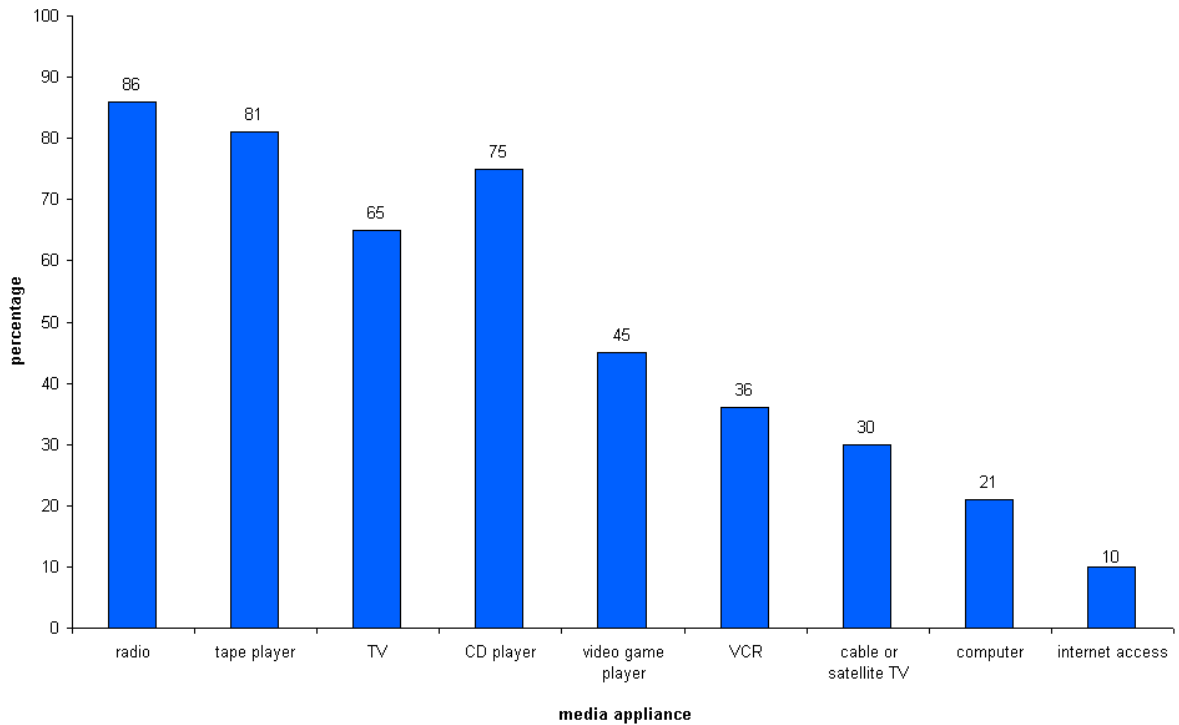
Source : Livingstone & Bovill, 1999 : Ch.4 Pg.13

The data presented in figure 4.2. are an indication of the growing amount of media appliances in the British family home. All homes were equipped with a television and almost all had a VCR (96%). This is similar to the American situation although in America more homes had satellite or cable TV (74 % to 42 % in the United Kingdom). However, American homes have got slightly more PC's than the homes in the United Kingdom (73 % to 53 %). Most importantly, Americans are more advanced with regard to internet access at home. Forty-eight percent of the American children between 7 and 18 years old live in a home with internet access whereas this is only seven percent of the children between five and eighteen years old in the United Kingdom. However, it must be noted that the United Kingdom lags behind in the European field (The European Commission, 1999).

With the arrival of these multimedia homes a new phenomenon emerges. The American as well as the British study put the scope on the introduction of more and more media in the children's bedrooms. It is one of the most recent findings but already very well documented by several

researchers (Livingstone and Bovill, 1999 ; Livingstone and Bovill, 2001 ; Brown, Dykers, et al., 1994 ; Pasquier, Buzzi, et al., 1998) .

Figure 4.3. : Percent of American children between seven and eighteen years old who have the following media in their bedrooms.

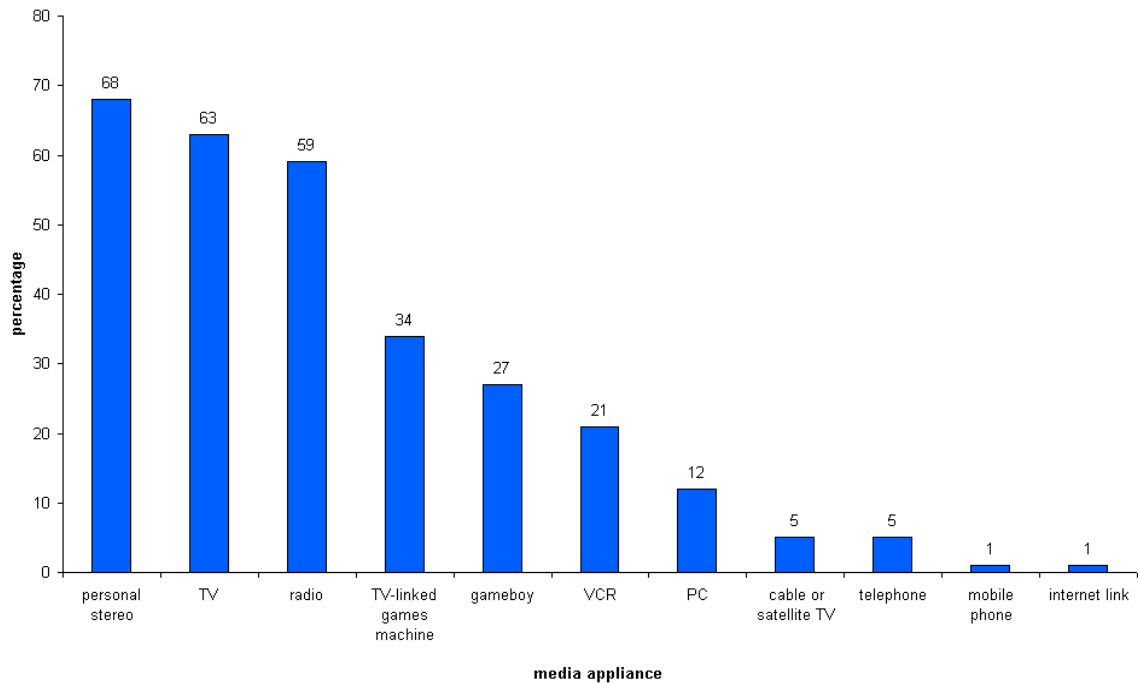


Source : Roberts, Foehr, Rideout, & Brodie, 1999 :13

Data from the American study (figure 4.3.) indicate that ‘old’ media such as a radio (86 %), a tape player (81 %), and even a TV (65 %) were found in lots of bedrooms. However, more interestingly is the fact that there are already children with ‘newer’ media in their bedroom such as a CD player (75 %), a video game player (45 %), and a computer (21%). Most interestingly is the fact that ten percent of the children reported having internet access in their bedroom.

Figure 4.4. gives an insight in the British situation. It is clear that British children also have lots of ‘old’ media in their bedroom such as a radio (59 %), and a TV (63 %). They are also well equipped when it comes to video games. 34 % of the children have TV-linked games machines in their bedroom and 27 % has a gameboy. However, when comparing the American to the British situation, it appears that the British bedroom is not yet equipped with the latest state-of-the-art material such as an Internet connection (only one percent). Nonetheless, the emergence of more and more media appliances in the bedroom remains apparent.

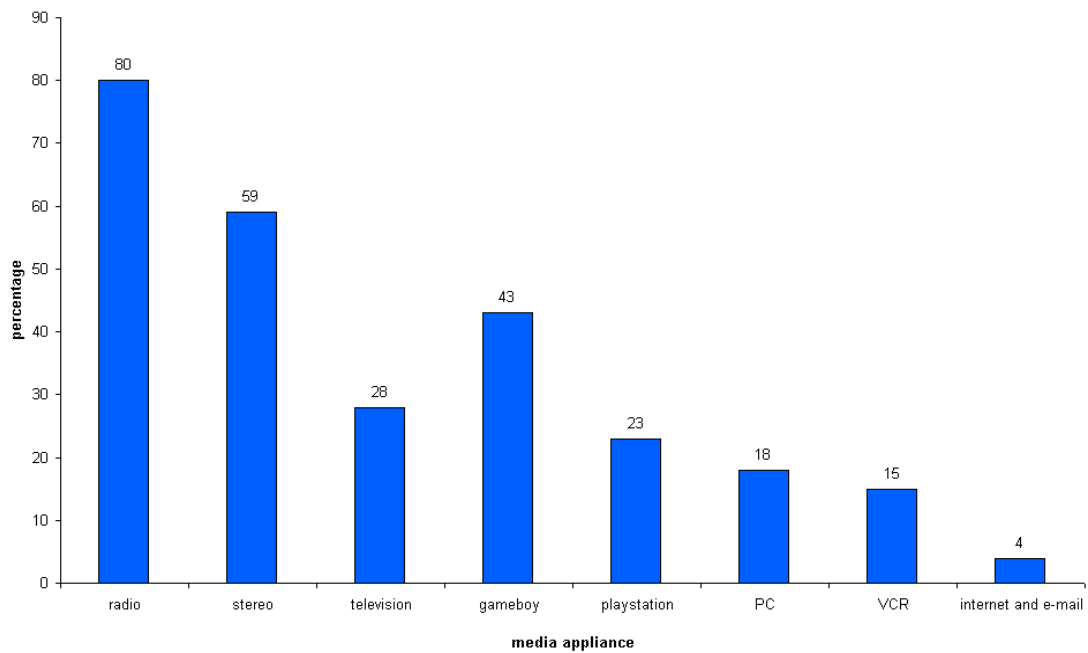
Figure 4.4. : Percent of British children between six and seventeen who have the following media in their bedroom.



Source: Livingstone & Bovill, 1999: Ch.4 Pg.14

In a study by Beentjes et al. (1999) Flemish children were asked which appliances they had in their bedroom and elsewhere in the home. The results are presented in figure 4.5.

Figure 4.5. : Percentage of Flemish children between six and seventeen with media in their own bedroom.

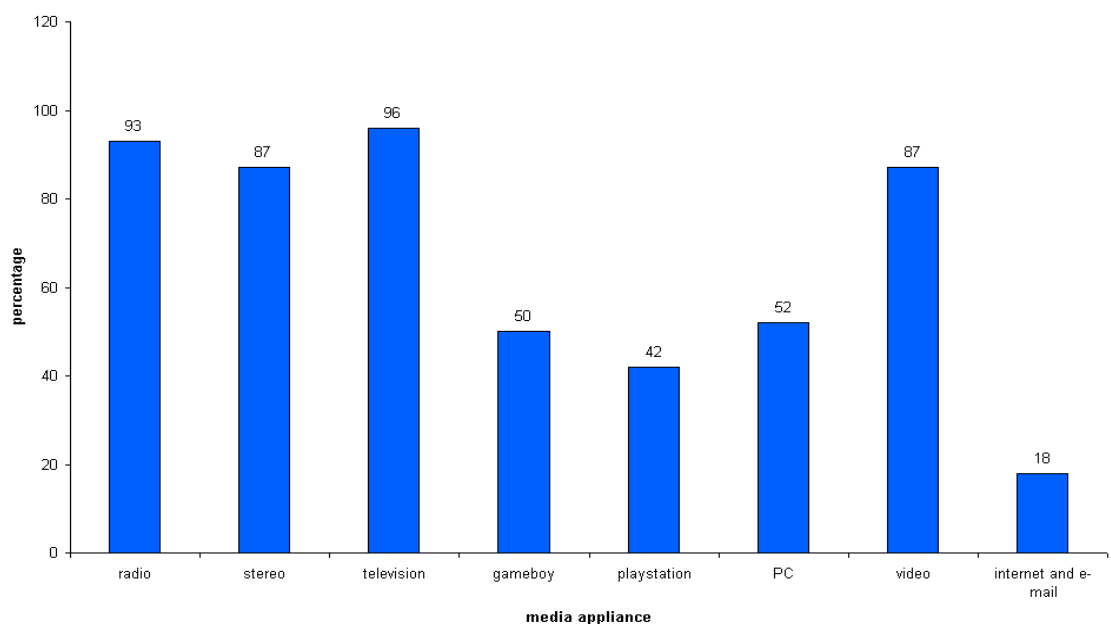


Source: Beentjes, d'Haenens, van der Voort, & Koolstra, 1999:152

These data clearly show that the bedrooms of Flemish children are becoming better and better equipped. The bedroom is a multimedia domain with a radio (80 %) and a stereo (59 %). However, the percentage of Flemish children with a television set in their bedroom is lower (28 %). Game consoles are favorite bedroom equipment. 43 percent of Flemish children between 6 and 17 have a gameboy and 23 percent a playstation. Newer media such as internet and e-mail are on the rise. However, they are only found in a very small proportion of the children's bedrooms (4 %).

The emergence of media appliances in the children's bedroom leads to interesting research questions into the meaning of this evolution for family life. Researchers already looked into the possible isolation of children from family life due to children's computer use at home (Orleans & Laney, 2000). However, the emergence of the 'bedroom culture' (Livingstone, 1999:5) poses an even greater challenge to family life. Looking at this topic from a Family Systems perspective it will be interesting to investigate how this phenomenon fits into family system dynamics. How the family system copes with this phenomenon. It is most certainly a factor that can cause stress to the family system and can force the family to change. However, the question will be how the family system will adopt itself to this internal stress factor. Will it cause changes to the family sub-systems? Is the family system in peril? Does this place the child outside the family system? This phenomenon will also give us a clearer view on how boundary management is acted out in a family system. This phenomenon runs parallel to the phenomenon of identity creation. Whereby children can completely act out their own identity in their bedroom. It becomes a secluded haven where one can be ones true self (Brown et al., 1994).

Figure 4.6. : Percentages of Flemish children between six and seventeen with media elsewhere in the home.



Source: Beentjes, d'Haenens, van der Voort, & Koolstra, 1999:152

Caution must be taken when interpreting figure 4.6. This figure is an addition to figure 4.5. It may well be that a child has got, for example, two PC's, one in the living room and one in its own bedroom. The figures should be interpreted as such. Most of the Flemish youngsters have a television set (96 %), a radio (93 %), a stereo (87 %), and a VCR (87 %) elsewhere (than in their bedroom) in their home. Already 52 percent of the Flemish children report having a PC elsewhere at home and half of them have got a gameboy. With regard to the newest media the researchers found that 18 percent of the children had an internet connection and e-mail elsewhere in their home.

Furthermore, European data show that Flanders takes up a middle position in the European field with regard to the amount of computers, CD-ROM's, modems, and Internet connections that Flemish citizens have to their disposal. Scandinavian countries, in particular, are scoring better (VRIND, 2000).

To get an insight on the Belgian situation, Table 4.4. presents a comparison of the situation of telecommunications services for Belgium in comparison to the average for the 15 EU countries (EU 15). These data come from a large-scale survey based on over 44 000 household interviews in 130 regions of the 15 member states (The European Commission, 1999).

Table 4.4. : Number of telephony, PC, and TV appliances in Belgian and European households (percentages).

	Belgium	EU 15
Telephony		
Only a fixed set	30	39
Only a mobile	7	4
Both fixed and mobile	58	53
PC		
Internet	12	12
PC but no Internet	32	21
TV		
cable	91	34
Satellite	2	16

Source: The European Commission, 1999

The report shows that in 1999 the Internet penetration in Belgium was as high as the European average (12 %). However, Belgian households do have more PC's without an Internet connection than the EU 15 (32 percent to 21 percent). With regard to telephony, Belgium can be found around the European average with 30 percent of the households with only a fixed set, 7 percent with only a mobile one, and another 58 percent with both fixed and mobile. Furthermore, it is apparent that

Belgian households almost all have cable (91 %) while this is certainly not the case in the EU 15 (34 %). However, due to the high penetration of cable TV the penetration of satellite dishes lags behind (2 % to 16 % in the EU 15).

Almost everyone in Belgium owns at least one television set. In the year 1995/1996 the percentage of households with one television set was for every region almost 14 percent lower than in the previous years. The group with two television sets doubled, in comparison with 1993 and 1991. Households with three or more television sets are still exceptional, like households with no television set at all (VRIND, 2000). Belgian data (NIS, 2001b) indicate that in 2000 half of the respondents said that they had a GSM at home, 42 percent had a PC at home, 31 percent a CD-ROM drive, 21 percent a game console, 7 percent a laptop, 3 percent a DVD-player, 3 percent a palm computer, and 4 percent had an ISDN connection at home. It must be noted that, especially when it comes to Internet, it is difficult to measure the number of households who are connected. Mostly these numbers are estimates. Another problematic issue is that different researchers use different measurements of Internet penetration.

4.4. Summary and conclusions.

The family system is embedded in a supra-system which consists of the family environment and the social context. Family systems use boundary management to relate to this 'outside world'. As such, they regulate the experiences their members have with the external environment. The emergence of new ICT creates new experiences to the family system. An investigation into the implications of boundary management for the ways in which families incorporate ICT is needed. Furthermore, it must be investigated whether or not ICT are permitted to change family life.

The family environment is of importance to family's socio-ICT structure. It consists of the Socio-ICT structure of organisations in which family members participate (e.g. youth movements), the socio-ICT structure of the extended family and the socio-ICT structure of the community (e.g. friends, neighbourhood). There have been numerous investigations into the influence of the social structure of the environment on family life. However, we argue that the ICT structure of the family environment should be taken into account when studying the impact that ICT have on family life.

With regard to families' social context two evolutions can be noted. Firstly, the family structure is changing rapidly. The Flemish household size decreases and four major trends in household types are observed:

- the decline of the nuclear family
- cohabitation as a prelude to marriage
- the increase of the single parent family
- the emergence of the 'hotel family'

Secondly, fundamental changes are occurring in the ICT structure of Belgian and Flemish households. European figures situate Belgium around the European average with regard to Internet access at home and telephony. Belgium is in the leading group when it comes to cable TV and PC without an internet connection. However, it lags behind when it comes to the penetration of satellite dishes. It must be noted that measurements of internet access at home are difficult and differ in most cases according to the research objective. The situation of the Flemish households is comparable to that of the Belgian households. European data indicate that Flanders takes up a middle position in Europe with regard to the amount of computers, CD-ROM's, modems, and internet connections. In Flanders the phenomenon of the fully equipped children's bedroom is also emerging. The data clearly indicate that Flanders is not an ICT pioneer but it does follow new developments.

THEORETICAL BACKGROUND: CONCLUSION.

The theoretical framework is based on the Family Systems Theory and its application in communication research. Figure 1 (p. 67) represents a theoretical model for the study of the implications of ICT for family life. Central to this model is the assumption that there is a reciprocal relationship between family's psychosocial structure and family's ICT structure inside the family system. This relationship is situated in the socio-ICT structure of the family system and is embedded in the family environment and the social context. Leading to the central research question:

‘What are the implications for family life of what families are doing with ICT?’

This research question is investigated starting from the theoretical assumption that ICT use is a reflection of general family functioning. Therefore, family's internal relationships and relationships with the outside world are investigated as expressions of the family theme. The family theme is conceived as the underlying thought that thrives the family unit. Identifying this idea will lead to a better understanding of how families incorporate ICT in their everyday life. Paying attention to the fact that the family is a dynamic unit that changes over time. Therefore, the focus of the theoretical model lies on the process rather than on the outcomes of that process since they may only be temporary. As a result, the central research question unfolds in the following research questions:

Internal relationships:

- RQ 1: Does ICT access/ICT use depend on family hierarchy and/or boundary management inside the family system?
- RQ 2: Does high ICT density/ICT use decrease family interaction and family cohesion?
- RQ 3: Does high ICT density/ICT use induce compartmentalisation?
- RQ 4: Does high ICT density/ICT use result from within-family stimulation?

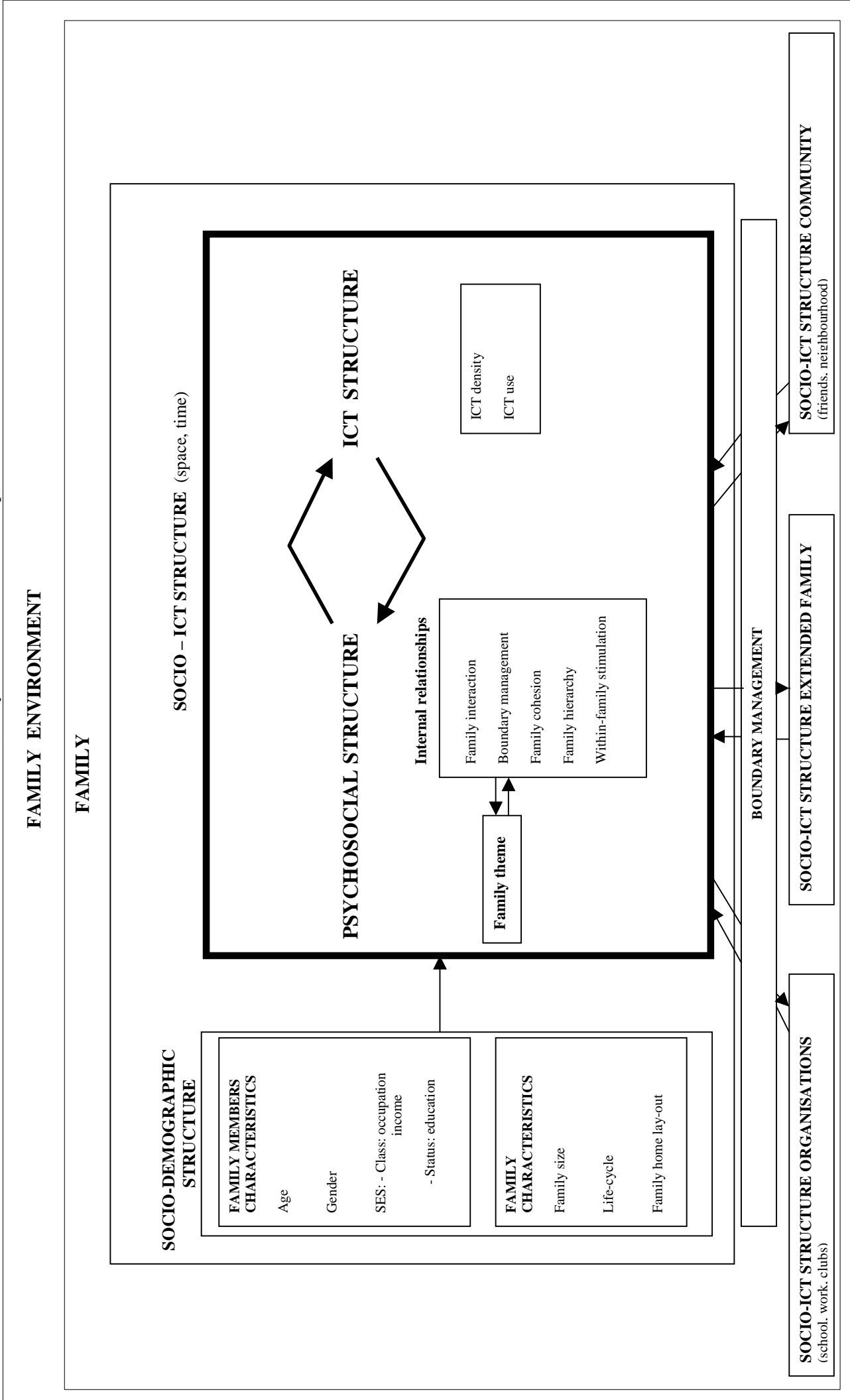
These questions are investigated as being embedded in the family's spatial organisation and temporal structuring.

Relationships with the outside world:

- RQ 5: Does ICT access/ICT use depend on boundary management with regard to the outside world?
- RQ 6: Does high ICT density/ICT use induce social isolation of the whole family or different family members?

Figure 4.7.: A theoretical model for the study of the implications of ICT for family life.

SOCIAL CONTEXT (family structure, ICT ownership)



In order to investigate these research questions an integrated quantitative and qualitative research design is employed. This research design is discussed in the following part (PART 2). After a discussion of the MultiSystem-MultiMethod research design, a family typology based on the quantitative research data is introduced in chapter five. In chapter six, the qualitative research path is presented.

PART 2: RESEARCH DESIGN

5. The research design and measurement instruments.

5.1. The research project.

The data presented here were collected as part of the research project: ‘Family life in a multimedia environment’, the purpose of which was to study how families change their daily lives and routines to accommodate new ICT developments. The research project was funded by the Flemish scientific research council (FWO-Vlaanderen), and was supervised by Prof. Dr. Guido Fauconnier and Prof. Dr. Keith Roe. As a research assistant I was able to incorporate my own research questions and methods into the research design.

5.2. MultiSystem-MultiMethod approach.

The purpose of this thesis is to analyse the impact of ICT on family life and more specifically whether or not ICT use is a reflection of general family functioning. This implies an investigation into ICT use in the family home. To this end a multistage study has been designed which includes a combination of quantitative and qualitative methodologies (MultiMethod approach). As noted earlier, it is not only important to investigate the system (the family) but also the different subsystems that make up the system and their relationship to the supra-system (MultiSystem approach). That is why our methodology is termed ‘MultiSystem-MultiMethod (MS-MM)’ approach (Cromwell & Peterson, 1981). In a first stage a survey was conducted in order to build a family typology on the basis of ICT density (i.e. the number of media appliances in the home). This was necessary to map out the ICT ownership of Flemish families and to be able to select families for the qualitative research stage. In the second stage 38 families were then selected from this survey sample for an in-depth family interview (for further information of procedure see 6.1.). This first round of interviews was important in order to gain access to the field and to gather data about families’ ICT use, ICT density, family interaction, family hierarchy, and socio-demographic structure. The analysis of these 38 family interviews forms the foundation of the selection of ten families who participated in a more psychosocial research design in the third stage. We opted for this psychosocial design in order to be able to link family’s psychosocial structure to their ICT

density and ICT use. In this stage, sensitive subjects such as: family cohesion, boundary management, family hierarchy and the family theme were addressed.

Our contribution tries to adapt a framework that has been greatly used to study 'abnormal' families to the study of 'normal' families. Since our aim is to study how families relate to ICT in 'normal' everyday life. In general, 'normal' families haven't been studied greatly in this approach although some researchers developed concepts that also apply to 'normal' families (Hess & Handel, 1959).

5.3. Quantitative research design.

In a first stage, computer assisted telephone interviews were conducted with a representative sample of Flemish families (n=965). These families were found by random sampling telephone numbers from a digital telephone directory. Any family member could participate in the survey under the condition that he/she was at least eighteen years old. The focus of the survey was placed on family's ICT density and socio-demographic structure (Appendix 1). Since we did not want to curtail ourselves by setting strict criteria for the number of family members, we opted for a broad definition of family, whereby only one-person households were excluded. This research stage was conducted in the winter of 1999 (18/01/1999-15/02/1999).

5.3.1. Variables.

5.3.1.1. ICT density.

The ICT analysed in this study are: black and white TV, colour TV, wide screen TV, TV with teletext, connection for cable TV, decoder for pay TV, satellite dish, VCR, video cassette, pre-recorded video cassette, video camera, digital video camera, stereo, record player, radio alarm clock, radio, cassette recorder, CD player, CD-ROM player, walkman, discman, telephone, cordless telephone, GSM, answering machine, modem, pager, fax machine, multimedia PC, portable PC, PC, e-mail address, internet connection.

ICT density is defined as 'the number of different media appliances at home'. Therefore, respondents were asked: whether or not these media appliances were available at home, the number of each appliance available at home, and where each appliance was located in the home. They were also given the opportunity to name other media appliances (than the ones mentioned above) that were in their possession. Other media appliances generated in the survey were implicated in the qualitative study. Furthermore, they were asked whether or not their family had a subscription to

and/or bought a newspaper and which newspaper that was. Also whether or not their family had a subscription to and/or bought a weekly or monthly magazine and which magazine that was. In addition, respondents were asked: whether or not their family had video- and/or computer games, how many of them were game consoles, how many were handhelds, how many diskettes, and how many CD-ROMs. In this regard, respondents with internet at home were asked whether or not they played computer games on the internet.

5.3.1.2. Socio-demographic structure.

At this stage, respondents could only participate when they were 18 years or older. They answered questions about family members' characteristics and family characteristics. With regard to family member characteristics, they were asked to give the birth year of their partner, and the age of their children. Furthermore, they were asked to indicate whether they were male or female and of which gender their children were. In addition, respondents were asked whether or not they had an occupation and to give a description of that occupation. We also asked them whether or not their partners had an occupation and what that occupation was (description). The occupations were then classified by means of the occupational classification of Elchardus (Elchardus, 1979) which awards an occupational prestige score ranging from 11 to 81:

11-21 example: a cleaning woman

21-31 example: unskilled labourer

31-41 example: skilled labourer

41-51 example: clerical employee

51-61 example: nurse or teacher of lower level of secondary school

61-71 example: manager of a company with less than 500 employees

71-81 example: research assistant

The higher the occupational prestige, the higher the occupational prestige score. This has also been done for children's occupation (if they worked and lived at home). Furthermore, respondent's and partner's educational level was assessed by asking the respondent what his and his partner's highest certificate was. When a son or daughter participated, they were asked to answer these questions for the family they lived in. In this case, respondent's occupational/educational level became father's occupational/educational level and partner's occupational/educational level became mother's occupational/educational level. Family's occupational prestige score and family's educational level were computed by aggregating respondent's and partner's occupational prestige score and respondent's and partner's educational level. In case of unemployment or when one of the scores was not available, the other score was doubled.

With regard to family characteristics, family size was measured by asking the respondent whether or not he or she had children and how many. In addition, they were asked how many children still resided at home. Since the ages of the children were also reported, family's stage in the life-cycle could be established. Furthermore, since it is not common for Flemish people to know the exact surface area of their home, family home lay-out was measured. Respondents were asked how many separate rooms they had in their home, which type of rooms and how many of these separate types. The following type of rooms were investigated: bathroom, store-room, kitchen, dining-room, living-room, kitchen and living-room are a whole, kitchen and dining-room are a whole, living-room and dining-room are a whole, study, bedroom (parental bedroom and child's bedroom), visitor's room, and kitchen, living-room and dining-room are a whole. It is conceived as a measurement of status.

5.3.2. Discussion.

In most of the research done up until now the emphasis has been on interviewing the parents and looking at the family from a parental perspective. However, as noted earlier, this point of view has recently changed. Consequently, there is a growing interest in children's opinion with regard to their own ICT use. Since we opt for a whole family perspective we would like to incorporate both views in our analysis ascribing the same weight and importance to each of them. However, it is impossible and even inaccurate to rely on one respondent's answers to questions about family's socio-ICT structure. Especially when it comes to attitudinal scales, it is difficult to conduct a survey on the group level. Therefore, attitudes towards ICT were not measured in the quantitative research design. As a result, it became clear that the quantitative investigation is a starting-point for further qualitative investigation and must be conceived as a map of Flemish families' ICT density.

Therefore, the questionnaire contained a follow-up question. Respondents were asked whether or not they would lend their participation to the follow-up study. It was explained to them that this implied a whole family interview at their home and that they would be contacted before hand by telephone. 29 % of our respondents answered positively to our request, 71 % did not want to participate in the follow-up study.

5.3.3. Families' socio-demographic structure.

A little more than half of our questioned families can be categorised as a 'traditional' family, which means a heterosexual couple with children that reside at home. A fourth of our families consist of a married heterosexual couple whose children are not residing at home any more. 6 % of our families

consist of a childless married couple. Heterosexual couples that live together without being married and who have children that reside with them make up 2 %. There are slightly more unmarried heterosexual couples that live together who do not have children (3 %) and four heterosexual couples that live together and have children that do not reside at home anymore. There are also two lesbian couples in our sample: one couple with and one couple without children. 6 % are one-parent households. It is most remarkable that several of the children that still reside with their parents already have a job of their own (17 %). These tend to be more boys than girls (respectively 69 % and 31 %).

Table 5.1. gives an overview of the family home lay-out. The mean of the total of separate rooms at home is 7,54 (sd=2,28). Most Flemish homes consist of: a bathroom (99%), a living-room [separately (63%) or combined with a dining-room (21 %) and a kitchen (12 %)], a kitchen [separately (77 %) or combined with a dining-room (10 %)], a parental bedroom (99 %), a store-room (88 %), a child's bedroom (79 %). Fewer families have a study (38 %) or a visitor's room (33 %). Homes which contain two living-rooms (meaning one living area and a sitting area for special occasions) seem to be outmoded (only 1 %).

Table 5.1.: Percentages of separate rooms in Flemish homes (n=965).

number	0	1	2	>2	Total
room					
bathroom	1	91	8	0	100
store-room	12	69	13	6	100
kitchen	23	76	1	0	100
dining-room	48	50	2	0	100
living-room	37	62	1	0	100
kitchen + dining-room	90	10	0	0	100
kitchen + living-room	100	0	0	0	100
kitchen + dining-room + living-room	88	12	0	0	100
living-room + dining-room	79	21	0	0	100
study	62	36	2	0	100
bedroom	3	22	51	24	100
parental bedroom	1	98	1	0	100
children's bedroom	21	25	40	14	100
visitor's room	67	26	6	1	100

The data are analysed from the family point of view. Therefore, certain variables concerning respondent's socio-demographic structure (educational level and occupational prestige score), are paired to the same variables concerning their partner's socio-demographic structure. In couples the mean educational level of men (mean=3,21; sd=1,41) and women (mean=2,96; sd=1,33) differs

significantly ($p < 0.01$) ($n=889$). On average, women are less educated than their partners. Looking at the mean occupational prestige score in couples, we found no significant difference between men (mean=3,95; sd=1,19) and women (mean=3,87, sd=1,35). Analysing the situation for couples with children living at home ($n=617$), indicates the same situation. The mean educational level of men (mean=3,44; sd=1,34) and women (mean=3,19; sd=1,23) differs significantly ($p < 0.01$). On average, women are less educated than their partners. Looking at the mean occupational prestige score in couples, we found no significant difference between men (mean=3,94; sd=1,19) and women (mean=3,83, sd=1,36).

5.3.4. The family home as a multimedia environment.

It has already been indicated that family's media environment is changing rapidly (part 1, chapter 1). This is an American as well as a European trend. In table 5.2. we therefore present the percentages of Flemish households number of media appliances. Percentages for the full list of media appliances included in the survey can be obtained from Appendix 2. Only the most relevant appliances are included in table 5.2.

Table 5.2. : Percentages of Flemish households number of media appliances at home. (n=965)

number	0	1	>1	Total
media appliance				
television	1	59	40	100
VCR	15	72	13	100
radio	10	34	56	100
CD player	13	49	38	100
PC	75	23	2	100
multimedia PC	64	32	4	100
portable PC	94	6	0	100
CD-ROM player	59	37	4	100
modem	79	19	2	100
e-mail address	87	11	2	100
internet	85	15	0	100
telephone	5	66	29	100
GSM	70	25	5	100

Our quantitative survey shows that families not only possess more than one set of 'old' media appliances but they also possess lots of 'new' ICT. At the time of the survey, 36 % of Flemish families were in possession of a multimedia PC. Almost the same number had a CD-ROM player (41 %), 21 % had a modem, 13 % of Flemish families had one or more e-mail addresses and 15 %

were connected to the internet. Moreover, almost half of Flemish families have video-and/or computer games (47 %) and 43 % of these have a game console such as Playstation or Nintendo.

5.3.5. Towards a family typology.

Our main interest with regard to the quantitative research part lies in the construction of a continuum from which a typology of families based on ICT density could be drawn. Therefore, the resulting data with regard to ICT density were subjected to a Cluster Analysis (Sharma, 1996; SPSS Inc. 1997). Since we had to deal with a large number of cases that had to be clustered, we opted for a K-means cluster analysis. The variables with regard to the number of different media appliances at home were used to calculate a cluster solution. For this purpose standardised values were used. Only the variables that contributed to the identification of the clusters are included.

With regard to the number of clusters a three, four, and five cluster solution was computed. Although in K-means cluster analysis, the number of clusters has to be given up front we underpin our final cluster solution of three clusters by two criteria. Firstly, some clusters hardly had any case falling into them in a four cluster (just 5 cases in the second cluster) or five cluster analysis. Secondly, in previous research by Livingstone and Bovill (1999) a similar three cluster solution was found (see supra). Table 5.3. presents the final clusters centres of this three cluster solution.

The numbers that are highlighted in the table are the best examples of how the three clusters differ in ICT density. For example, the average number of multimedia PC's for cluster one families is 0,49518 standard deviation units below the mean for all families; while the average for cluster two families is almost the same as the overall mean; and the average for cluster three families is slightly more than one standard deviation unit above the overall mean (1,31965).

Table 5.3.: Final Cluster Centres (means of the standardized variables for each cluster).

	Cluster		
	1	2	3
wide screen TV	-,01216	-,00967	,04419
cassette recorder	-,49657	,61078	,49660
CD player	-,53745	,63408	,66223
CD-ROM player	-,52042	,24565	1,31500
PC	-,21440	,25361	,28206
decoder for pay TV	-,06364	,09219	,02808
digital video camera	-,13857	,09166	,29254
discman	-,33595	,35827	,48184
cordless telephone	-,21630	,14290	,50651
portable PC	-,22522	-,05460	,93171
e-mail address	-,31868	-,31260	1,81239
fax machine	-,34689	,03406	1,13760
GSM	-,31941	,27021	,52142
internet connection	-,38145	-,37613	2,12129
connection for cable TV	-,19531	,11687	,20220
colour TV	-,32218	,35410	,39467
modem	-,43193	-,16859	1,80844
multimedia PC	-,49518	,17498	1,31965
answering machine	-,27038	,16010	,57572
record player	-,24622	,31900	,20493
radio	-,40912	,56223	,36307
satellite dish	-,09847	,04861	,25514
pager	-,16300	,09087	,27666
stereo	-,52554	,62200	,59424
telephone	-,29747	,20656	,58637
TV with teletext	-,31265	,28862	,39544
VCR	-,33753	,26229	,54785
video camera	-,24124	,21455	,35433
radio alarm clock	-,41232	,54210	,28276

Three types of families were thus identified:

type 1 (54%). This consisted of ‘traditional families’ characterized by low ICT density (i.e. TV, telephone, and a limited number of audio appliances).

type 2 (31%). This consisted of ‘intermediate families’ characterized by average possession of most ICT but clearly more audio minded than type 1 and type 3 families. However, they differ from type 3 families in not having newer ICT such as Internet and e-mail.

type 3 (15%). This consisted of ‘multimedia families’ with a high density of appliances and an emphasis on newer ICT such as: internet, e-mail, and digital video camera.

Table 5.4.: One-way analysis of variance

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
wide screen TV	,180	2	,998	897	,180	,835
cassette recorder	128,604	2	,699	897	183,977	,000
CD player	156,063	2	,674	897	231,558	,000
CD-ROM player	193,142	2	,577	897	334,550	,000
PC	25,542	2	,951	897	26,871	,000
decoder for pay TV	2,217	2	,997	897	2,224	,109
digital video camera	11,714	2	,971	897	12,061	,000
discman	61,173	2	,884	897	69,233	,000
cordless telephone	31,834	2	,923	897	34,481	,000
portable PC	72,552	2	,865	897	83,923	,000
e-mail address	264,762	2	,424	897	623,759	,000
fax machine	118,516	2	,741	897	159,966	,000
GSM	53,557	2	,868	897	61,679	,000
internet connection	365,358	2	,196	897	1859,349	,000
connection for cable TV	13,303	2	,353	897	37,688	,000
colour TV	53,304	2	,898	897	59,366	,000
modem	274,660	2	,378	897	727,502	,000
multimedia PC	183,611	2	,567	897	323,595	,000
answering machine	44,078	2	,866	897	50,876	,000
record player	31,733	2	,918	897	34,584	,000
radio	93,566	2	,801	897	116,856	,000
satellite dish	7,162	2	1,000	897	7,161	,001
pager	12,721	2	,862	897	14,761	,000
stereo	145,035	2	,689	897	210,548	,000
telephone	51,031	2	,849	897	60,114	,000
TV with teletext	45,876	2	,887	897	51,714	,000
VCR	57,707	2	,863	897	66,879	,000
video camera	29,105	2	,927	897	31,400	,000
radio alarm clock	87,526	2	,785	897	111,428	,000

Table 5.4. gives an indication of the variables that were most or least important in identifying the three cluster solution. The means of *Internet connection* ($F=1859,35$), *modem* ($F=727,50$) and *e-mail address* ($F=623,76$) differ the most across the three clusters and were most important in identifying them. In comparison with the other variables, the means of *wide screen TV* differ little across the three clusters ($F=0,18$). This variable was therefore less important for identifying the final cluster solution.

In order to see how these three clusters relate to one another, table 5.5. presents the distances between the final cluster centres.

Table 5.5.: Distances between Final Cluster Centres

Cluster	1	2	3
1		3,261	6,121
2	3,261		4,496
3	6,121	4,496	

The cluster centres of the traditional and multimedia family types differ the most. The cluster centre of the intermediate family type is located in between that of the traditional and that of the multimedia family type.

5.3.5.1. Socio-demographic structure of the family types.

To get a clear view of the kind of families that are represented in each family type we conducted a one-way analysis of variance whereby the socio-demographic structure of the three family types was compared (only significant results are reported). Firstly, Levene's test was administered to investigate whether the variances of the dependent variable over the three family types are significantly different. The results reported in table 5.6. come from the whole sample (n=965). The means of the three clusters differ significantly with regard to family's occupational prestige score (F (2,647)=14,08; p<0,01), number of children at home (F (2,774)=80,91; p<0,01), and family's educational level (F (2,880)=60,79; p<0,01).

Table 5.6. : Means, standard deviations and significant results of a one-way analysis of variance of cluster membership on family occupational prestige score, number of children at home, and family educational level.

	Family type			F	
	Traditional	Intermediate	Multimedia		
Family occupational prestige score	<u>M</u>	7,13 a	7,85 b	8,37 b	14,08**
	<u>SD</u>	2,23	2,34	2,51	
Number of children at home	<u>M</u>	,94 a	1,92 b	1,84 b	80,91**
	<u>SD</u>	1,01	1,08	1,11	
Family educational level	<u>M</u>	5,37 a	6,72 b	7,57 c	60,79**
	<u>SD</u>	2,36	2,20	2,36	

** p < 0,01

Since sample sizes differed over the three family types we opted for the Tukey post-hoc test and controlled the results by conducting the Games-Howell test. Traditional families' occupational prestige score is lower than that of intermediate and multimedia families (p<0,01). However, there is no significant mean difference between the family occupational prestige score of intermediate and multimedia families. Traditional families on average have fewer children living at home than

intermediate and multimedia families ($p < 0,01$). Here again, there is no significant mean difference between intermediate and multimedia families. Our analysis shows that family's educational level is of importance in defining the three family types. Traditional families have a lower educational level than intermediate and multimedia families ($p < 0,01$). Furthermore, there is a significant difference between intermediate and multimedia families mean family educational level. Intermediate families have a lower mean family educational level than multimedia families ($p < 0,01$). So the mean family educational level of the multimedia families is the highest.

In order to investigate whether or not mother's and father's educational and occupational level differed over the three family types, the sample was reduced to parents (single or couple) with children (residing at home or not) ($n=862$) (table 5.7.).

Table 5.7. : Means, standard deviations and significant results of a one-way analysis of variance of cluster membership on variables regarding mother's and father's educational and occupational level.

	Family type			F	
	Traditional	Intermediate	Multimedia		
Educational level (mother)	<u>M</u>	2,59 a	3,20 b	3,55 c	34,21**
	<u>SD</u>	1,25	1,23	1,25	
Occupational prestige score (mother)	<u>M</u>	3,55 a	3,93 b	4,07 b	4,56*
	<u>SD</u>	1,30	1,30	1,44	
Educational level (father)	<u>M</u>	2,76 a	3,53 b	3,93 c	42,24**
	<u>SD</u>	1,35	1,28	1,44	
Occupational prestige score (father)	<u>M</u>	3,59 a	4,03 b	4,16 b	9,81**
	<u>SD</u>	1,17	1,28	1,32	

** $p < 0,01$; * $p < 0,05$

The means of the three clusters differ significantly with regard to mother's occupational prestige score ($F(2,354)=4,56$; $p < 0,05$), mother's educational level ($F(2,748)=34,21$; $p < 0,01$), father's occupational prestige score ($F(2,512)=9,81$; $p < 0,01$), and father's educational level ($F(2,703)=42,24$; $p < 0,01$).

Mothers in traditional families on average have a lower occupational prestige score than those in intermediate and multimedia families ($p < 0,05$). However, there is no significant mean difference between mother's occupational prestige score in intermediate and multimedia families. Again, our analysis shows that mother's educational level is of importance in defining the three family types. In traditional families mothers have a lower educational level than in intermediate and multimedia

families ($p < 0,01$). Furthermore, there is a significant difference between intermediate and multimedia families mean mother's educational level. Intermediate families have a lower mean mother's educational level than multimedia families ($p < 0,05$). So the mean mother's educational level of the multimedia families is the highest.

Fathers in traditional families on average have a lower occupational prestige score than those in intermediate and multimedia families ($p < 0,01$). However, there is no significant mean difference between father's occupational prestige score in intermediate and multimedia families. Furthermore, in traditional families fathers have a lower educational level than in intermediate and multimedia families ($p < 0,01$). In addition, there is a significant difference between intermediate and multimedia families mean father's educational level. Intermediate families have a lower mean father's educational level than multimedia families ($p < 0,05$). So the mean mother's educational level of the multimedia families is the highest.

It is even more interesting to investigate families with children that still reside at home over the three family types ($n=617$). Therefore, we conducted a one-way analysis of variance of cluster membership on mother's and father's educational and professional level. However, when testing for homogeneity of variances we discovered that the variances of father's educational and occupational level are significantly different which compromises the results of the one-way ANOVA. As a result, only the results with regard to mother's educational and occupational level are reported (table 5.8.).

Table 5.8. : Means, standard deviations and significant results of a one-way analysis of variance of cluster membership on mother's educational level and mother's occupational prestige score.

	Family type			F	
	Traditional	Intermediate	Multimedia		
Educational level (mother)	<u>M</u>	2,94 a	3,23 ab	3,59 b	9,89**
	<u>SD</u>	1,16	1,22	1,24	
Occupational prestige score (mother)	<u>M</u>	3,50 a	3,87 b	4,14 c	5,59**
	<u>SD</u>	1,30	1,31	1,40	

** $p < 0,01$

The means of the three clusters differ significantly with regard to mother's educational level ($F(2,532)=9,89$; $p < 0,01$), and mother's occupational prestige score ($F(2,320)=5,59$; $p < 0,01$).

Traditional families' mother's occupational prestige score is lower than that of multimedia families ($p < 0,01$). However, there is no significant mean difference between mother's occupational prestige score of intermediate and traditional families and of intermediate and multimedia families. In this respect the most interesting finding is that traditional, intermediate, and multimedia families differ significantly with regard to mother's educational level. In traditional families mothers have a lower educational level than in intermediate ($p < 0,05$) and multimedia families ($p < 0,01$). Furthermore, there is a significant difference between intermediate and multimedia families mean mother's educational level. Intermediate families have a lower mean mother's educational level than multimedia families ($p < 0,05$). So the mean mother's educational level of the multimedia families is the highest.

5.4. Summary and conclusions.

In this study a MultiSystem-MultiMethod approach will be employed to study some of the ways in which the diffusion of new information and communication technologies (ICTs) have implications for family life. In a first stage, a telephone survey was conducted. On the basis of ICT density, families were then divided in three different family types: traditional, intermediate, and multimedia families. This family typology is similar to the one constructed by Livingstone and Bovill (1999a) (see also part 1: chapter 1) who distinguished three types of family homes: 'media-rich' homes, 'traditional' homes, and 'media-poor' homes. However, they have a different unit of investigation. Their data are gathered with young people (6-17 year olds). Furthermore, their typology is based on 'media elsewhere in the home' (media in the children's bedrooms are not included).

When analysing these three family types, it is clear that: traditional families have a lower family occupational prestige score, fewer children living at home, and a lower family educational level than intermediate and multimedia families. In this regard, family's educational level is of importance. Intermediate families have a lower mean family educational level than multimedia families. When the sample is limited to families with children that live at home mother's occupational prestige score and educational level is of importance. Mothers in traditional families have a lower occupational prestige score than those in multimedia families. However, again it is the educational level that is of importance. Mothers in traditional families are less educated than those in intermediate and multimedia families. Furthermore, mothers in intermediate families are less educated than those in multimedia families.

Since, it was not possible to incorporate attitudinal scales or questions on the family level into the questionnaire we opted to deepen the survey results by adding qualitative research stage (chapter

6). Therefore, the survey is conceived as a map of ICT density and an insight into family's socio-demographic structure.

6. Qualitative research design.

Silverstone, Hirsch, and Morley (1991) already noted that there is a lack of well-written methodological accounts of qualitative research into the impact of media on everyday life. In their own work they give an inside in the methodological tools that are used, as well as, into the train of thoughts that led them to use certain techniques and discard others. In order to come to external reliability we deem it appropriate to discuss our qualitative research path.

6.1. Phase 1: In-depth family interviews.

On the basis of the family typology (1. traditional, 2. intermediate and 3. multimedia) and the follow-up question, 38 families were selected for a qualitative study involving unstructured in-depth family interviews: 6 from type 1, 15 from type 2, and 17 from type 3. The sample was restricted to 38 families since this is a time-consuming methodology. Furthermore, we over sampled the third group because of the intrinsic importance attached to the involvement in the Internet era (new ICT). The aim of the interviews was to discover differences between the three family types with regard to ICT use. Of the 38 families, 31 (4 in type 1, 13 in type 2 & 14 in type 3) contained children. In all these families contained 72 children, of which 61 participated in the interviews. The remaining 11 were either too young (6) or not at home at the time (5).

Table 6.1. : Frequency table of age and family type membership of the participating children by gender.

age	gender		Total
	male	female	
Traditional (n=4 families)			
<12	5	2	7
12-18	1	0	1
>18	0	0	0
Total	6	2	8
Intermediate (n=13 families)			
<12	6	3	9
12-18	7	6	13
>18	1	2	3
Total	14	11	25
Multimedia (n=14 families)			
<12	6	3	9
12-18	7	8	15
>18	4	0	4
Total	17	11	28
Total	37	24	61

Table 6.2. gives an insight in the two elements of the socio-demographic structure of the 38 families. Couples' occupational prestige score and educational level are presented. Note that one of the 38 families consisted of a lesbian couple with a child. Both women's scores with regard to educational level and occupational prestige were added at the female side of the table.

Table 6.2. : Frequency table of educational level and occupational prestige score of the 38 couples by gender.

	gender		Total
	male	female	
occupational prestige score			
unemployed	6	10	16
11 – 21 (ex. : cleaning woman)	0	0	0
21 – 31 (ex.: unskilled labourer)	0	2	2
31 – 41 (ex.: skilled labourer)	10	8	18
41 – 51 (ex.: clerical employee)	10	7	17
51 – 61 (ex.: nurse)	4	7	11
61 – 71 (ex.: manager of a small company)	3	5	8
71 – 81 (ex.: research assistant)	4	0	4
Total	37	39	76
educational level			
none/primary education	1	4	5
secondary education 1 (lower level)	0	1	1
secondary education 2 (higher level) higher education (<4 years)	15	15	30
higher education (>3 years)	10	12	22
university	5	2	7
	6	5	11
Total	37	39	76

It is clear that there is an overrepresentation of families with a high male and female educational level and a high male and female occupational prestige score. Families where male or female had an occupational prestige score between 11 and 21 were not interviewed, leading to an under representation of the lower occupational prestige scores. As such, our sample is not a perfect representation of Flemish families. This is mainly due to two reasons. First of all, not all families that answered positively to the follow-up study, wanted to participate in it when we contacted them to make an appointment. Secondly, the multimedia family type was over sampled. As already indicated, multimedia families have a higher family educational level than the other two family types and a higher family occupational prestige score than traditional families. This must be borne in mind when interpreting the data. However, the families were geographically spread over the whole of Flanders.

In view of our research framework it was important to gain access to the natural setting of these 38 families (i.e. the family home). Therefore, the interviews were conducted in the home with all the family members present. The interviews were conducted between the end of April 1999 and the end of May 1999 (except for one conducted on the 29th of June 1999). They were tape-recorded and transcribed in the summer of 1999. Questions were asked regarding the following topics: family interaction, family rules, ICT density, ICT use, ICT purchase, family characteristics, leisure activities, family rituals, temporal organisation, spatial organisation (A full description of the topics can be obtained from appendix 3). The interviews were conducted by two researchers. One researcher conducted the interview while the other one observed the family members. The latter could intervene to ask questions that the interviewer had overlooked. This 'triangulation of researchers' (Maso & Smaling, 1998) proved to be a great advantage when interviewing these 'small groups'. Impressions could be shared and data were also coded and interpreted by two different researchers. Leading to a greater internal reliability and validity of the research.

Afterwards, families were asked to fill in a time use diary for one week monitoring their leisure activities and ICT use and to post it back to the researcher. However, few families did post it back. After analysis of the diaries that were posted back we came to the conclusion that they had been filled out rather superficially. Therefore, the data are not included in this thesis

6.1.1. Discussion: The path to triangulation.

The original research design consisted of these in-depth family interviews, conceived as sufficient to gather information about family's socio-ICT structure. However, this assumption turned out to be wrong. An analysis of the 38 interviews resulted in several conclusions:

1. Interviewing the family as a whole is interesting for observing family hierarchy and family interaction. For example, in some families the children did not have the opportunity to speak up and give their own opinion to the researcher. In other families the parents sort of withdrew and children took over. However, in order to get every family member's view on the socio-ICT structure it was important to add an investigation of the individual family member's opinion. Giving each family member the opportunity to speak more freely.
2. It became clear that the 'traditional' interview technique would not generate sensitive information about the psychosocial structure of the family. Data were gathered about the ICT-structure of the family but certain aspects of the psychosocial structure remained unclear.

Perhaps because questions with regard to this subject were threatening to the family. Again additional, different research techniques are needed.

3. If we wanted to investigate whether ICT use is a reflection of general family functioning and how the reciprocal relationship between psychosocial and ICT structure works, 38 families is too much to handle. The number of families must be limited in order for us to be able to get a good understanding of what is going on in the family.
4. After these first interviews the research would be continued by only one researcher which might cause problems for internal reliability and internal validity. Therefore, we opted to develop different research tools to investigate our research questions. Triangulation of methods is one of the means to come to a greater internal validity. A means for looking at the same research question from a different angle.

6.1.2. Narrowing down the sample size.

We opted to narrow down the sample size by narrowing the type of families we wanted to investigate. The definition used for the survey and the collection of the 38 families turned out to be too broad. Therefore, our focus became: ‘families consisting of two parents (homosexual or heterosexual/married or unmarried) with their (biological or non-biological) children, residing in the same home’. This was based on three arguments. First of all, these kind of families are mostly early adopters of new ICT (Gunter & Wober, 1989; Gray, 1992; Livingstone, Holden, & Bovill, 1999). Secondly, children are a very important factor in the acquisition and use of new ICT (Hellman, 1996; Van Rompaey, Roe, & Struys, 2002). Thirdly, in Flanders children mostly live in two-parent households (see supra).

Firstly, on the basis of the quantitative data, the ICT ownership of Flemish families with children residing at home is explored (table 6.3.). Almost all of these families have a television set (99 %), a VCR (92 %), a radio (90 %), a CD-player (95 %), and a telephone (96 %). Most of them even have more than one set of these appliances. For example, 44 % have more than one TV, 63 % have more than one radio and 52 % have more than one CD-player. Families with children seem to be well-equipped with regard to audio appliances and newer ICT. 18 % have got an internet connection at home and 37 % have got a GSM.

Table 6.3. : Percentages of Flemish households (with children) number of media appliances at home. (n=617)

media appliance	number	0	1	>1	Total
television		1	55	44	100
VCR		8	75	17	100
radio		10	27	63	100
CD-player		5	43	52	100
PC		68	30	2	100
multimedia PC		55	39	6	100
portable PC		93	7	0	100
CD-ROM player		48	46	6	100
modem		75	23	2	100
e-mail address		84	13	3	100
internet connection		82	18	0	100
telephone		4	62	34	100
GSM		63	30	7	100

Moreover, not infrequently, in these families the computer related ICT were found to be situated in the children's bedroom, this being the case for almost half of the computers (PC and multimedia PC) and 16 % of the modems reported (table 6.4.). In line with previous research (Beentjes, d'Haenens, van der Voort, & Koolstra, 1999; Livingstone et al., 1999), our data suggest that children's bedrooms, contrary to parental bedrooms, are increasingly equipped with all sorts of media appliances. An important question to be asked is, whether or not children's bedrooms are becoming secluded multimedia islands where children go to evade family life, thereby creating a compartmentalization between themselves and their parents.

Table 6.4. : Percentages of media appliances in the children's bedroom, living-room, parental bedroom, kitchen and study in Flemish families with children.

room	children's bedroom	living-room	parental bedroom	kitchen	study	n
PC	30	24	3	2	26	198
multimedia PC	19	31	2	2	41	278
modem	16	26	1	1	49	155
telephone	3	73	18	15	13	590
CD-player	45	82	4	9	7	582
radio	44	62	11	44	7	553
television	19	97	12	6	3	606
stereo	38	87	3	5	5	570
VCR	9	92	4	3	1	565

For the second qualitative research phase we established children's age range at an upper limit of 18 years old. This limit was applied because many older children leave home to live in lodgings and only come home at weekends. Even when they reside at home, they are much freer to come and go whenever they want. As such, we omitted the 'hotel' families. In addition, we also discarded families with children that were too young to make a meaningful participation given our research techniques. However, we kept the age range wide. As already stated in previous research (Hess & Handel, 1972) this enables us to implement a framework that is not restricted by age and is therefore more general. This left us with twenty families out of the thirty-eight original ones. These were then classified from most interesting to least interesting for further research on the basis of the family typology (ICT density) and on the basis of family characteristics (family size and life-cycle).

In February 2000 these families were then contacted by telephone from most important to least important. To avoid that families would prematurely step out of the research they were at that time briefed about the intensiveness of the research. As such, out of the 31 families with children, 10 were selected for further in-depth investigation.

6.2. Phase 2: Psychosocial research design.

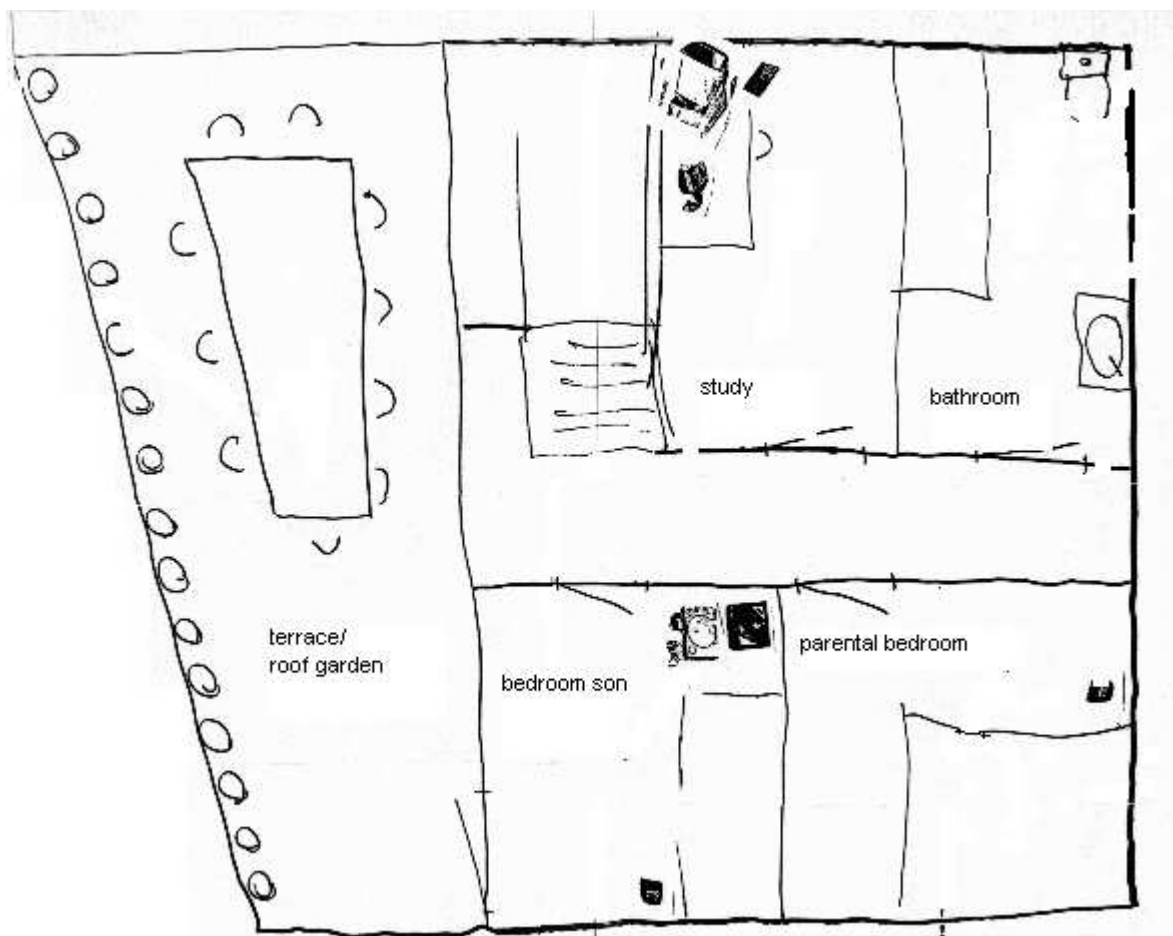
It appeared to us that it was especially difficult to get an insight into family's psychosocial structure. We investigated several methodological options. We thought about observation techniques whereby a researcher observes the family at their home or a video camera is placed in strategic areas observing the families. However, this option was too time consuming. Furthermore, it was clear that our families would not agree having an almost perfect stranger in their home to observe their every move. It would have taken lots of time and visits to gain the family trust. A follow-up in-depth family interview was discarded because it would not generate the data we wanted. Furthermore, using the same technique again could keep families from further participation. Therefore, we investigated the possibilities of using techniques that were novel and more inviting for the participating families. As such preserving their full co-operation during the whole of the research. These considerations led us to methods that were developed in the practice of family therapy and clinical psychology but have since been used in other disciplines such as sociology. They have proven to be useful in the study of 'normal' families in their natural environment (Silva & Smart, 1999). Meyer, Traudt, and Anderson (1980) already argued to use non-traditional research methods for the investigation of media use in natural settings. We argue that this may lead us to interesting findings which are complementary to findings from more traditional studies using in-depth interviews and observational methods.

The different research methods that will be discussed below were all used to get a grasp on family's psychosocial structure. We chose to use different techniques in order to come to triangulation of methods. Each of these sheds a different light on family's socio-ICT structure. As such, it will not only be interesting when data are complementary but also when they are contradictory. In our opinion, this will lead to a richer analysis of the relationship between families and ICT. The different views will be integrated in the data analysis (part 3 of this thesis).

6.2.1. Family Interaction Game (FIG).

In February and March 2000 the ten selected families were contacted by telephone to set a date for the FIG. These were conducted in March and April 2000. This method is based on the work by Cromwell and Peterson (1981). It is a measurement of family interaction, spatial organisation, ICT use, boundary management, family stimulation and family hierarchy.

Figure 6.1.: Example of the upstairs of a family's ideal home.



Family members are given the assignment to draw their ideal home together. They have to draw the ground-plan of the house (on the backside of a large piece of wrapping paper) and furnish it. They

are asked to label each room and to point out which family member may use that particular room. When the ground-plan is finished the family is given the opportunity to buy media appliances to put in their ideal home. For this purpose they are assigned an amount of money (8678 €) and a pricelist containing the price of each media appliance (Appendix 7). Prices were obtained from advertisements. Pictures of each media appliance were available to the family to stick onto the plan of their ideal home.

Since this is a task that confronts the family with a hypothetical problem, it gives the researcher the opportunity to check how different family members put forward their opinion, how well they are able to listen to other perspectives, and how good they are in using arguments that satisfy the whole family. It gives an indication of the way in which families reach a consensus and make decisions about the house and about the media appliances that they find important enough to buy. Family interactions are recorded and transcribed. After this task the family members are asked to fill in a short questionnaire in which they could rate their satisfaction with the family solution (Appendix 8).

Thereafter, a date was set for the following research part consisting of the family list (6.2.2.) and the family plan (6.2.3.). Both conducted in April 2000.

6.2.2. The family list.

In order to study the size and density of the family network, the frequency of direct (face-to-face) contact, feelings towards persons in the family network, and boundary management between family and family environment we used the family list. This method is based on the work by Oliveri and Reiss (1981) and Levin (1993) .

Family members are asked separately: “Who are your family and friends?”; “Make a list of the persons that you regard as family and those that you regard as friends.” The respondent then makes his/her list. It is stressed that he/she can alter the list at any moment. The respondent decides who is on the list and who is not. Changes are observed and recorded.

Figure 6.2. : Example of a family list.



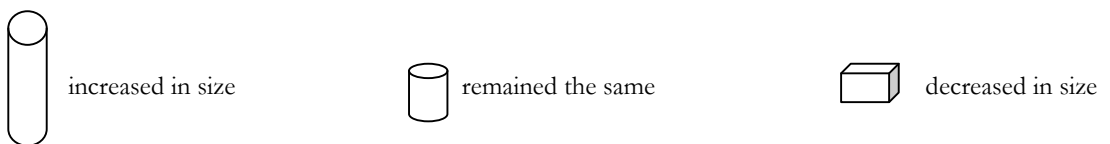
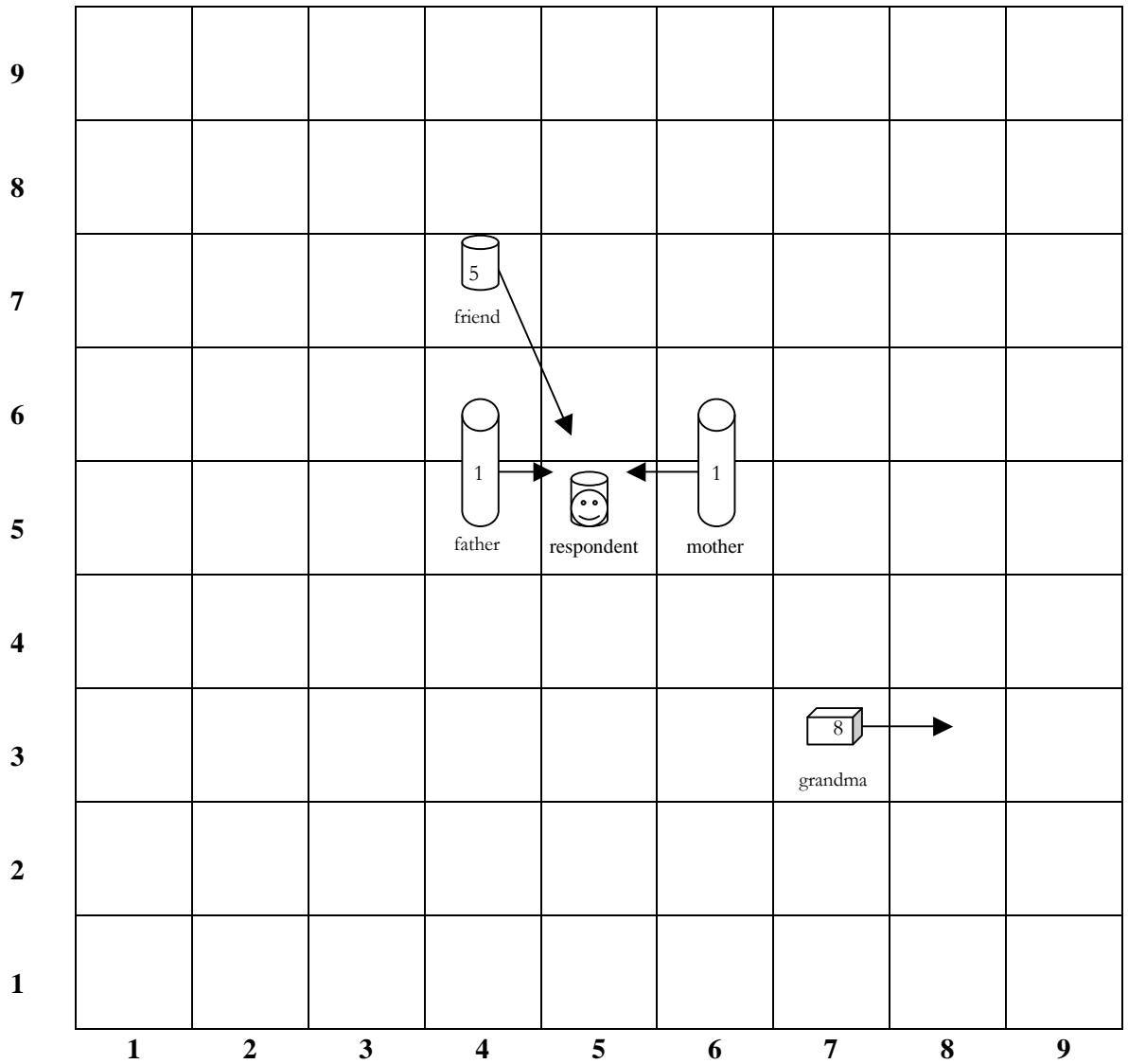
When the family member is ready, he/she is asked to indicate the nature of his/her relationship to the persons on their list (e.g. uncle, aunt, neighbour). Furthermore, questions are asked about the criteria that were used to put these persons on their list. The researcher also asks whether or not the listed persons live in the respondent's neighbourhood and which of the listed persons they see most frequently. All verbal transactions were recorded and transcribed. The different family lists are compared to one another to derive mutual friends and to investigate whether or not the feelings of the different family members towards the listed persons correspond. This technique also served as an introduction to the following experiment which was conducted on the same day.

6.2.3. The family plan.

This method was chosen in order to study family cohesion, boundary management and family hierarchy. It is based on the Kvebaek Family Sculpture Technique (KFST) (Weber & Fournier, 1986) as adjusted by Levin (1993), the Family Distance Doll Placement Technique (Gerber & Kaswan, 1971) and the Family System Test (FAST) (Gehring & Wyler, 1986). The family plan is a technique which is used to measure emotional-interactive patterns. It indicates the connectedness and distance experienced by family members between themselves and other family members and between themselves and their friends. To get an idea of these relationships, family members are asked, separately, to put figurines on a board that resembles a chessboard. Firstly the family member is asked to place himself on the board. Secondly, the family member is asked to put family and friends on the board. The respondent starts off with same sized figurines. He/she labels them with the person's first name and puts them on the board wherever he/she wants. The positioning of the figurines is observed and recorded: Who gets placed first? Who is shifted around? How are the faces orientated and what is the distance between the figurines? After the placement of the same sized figurines, the respondent is given three options: He/she can either increase or reduce the figurines' size or leave them as they are. The different figurine heights represent power relations in the family. Increasing the size of the figurine means more power, decreasing means that the person is less powerful with regard to the family. The family member is then asked why he/she put the figurines in that particular formation and why some figurines were increased or reduced.

On the basis of the formation on the board, several questions can be investigated: who is at the centre of the family, the distance between the family members and their environment, and what the coalitions are inside the family. Cohesion is represented by the distance between the figurines on the board. Afterwards, separate interviews with each family member about family's ICT use took place to link this research part to family member's ICT use. Again, all verbal accounts were recorded and transcribed.

Figure 6.3.: Example of a family plan.



The numbers inside the figurines are the dyadic distances. Gehring and Wyler's (1986) suggested measuring dyadic distances by the following formula based on the formula of Pythagoras. They express the distance between two figurines as follows:

$$(x_1-x_2)^2 + (y_1-y_2)^2$$

Whereby x_1/y_1 are the co-ordinates of the respondent and x_2/y_2 are the co-ordinates of the related person. In this example, the respondent has co-ordinates $x=5/y=5$ and his/her father has co-ordinates $x=4/y=5$. This results in a dyadic distance that equals one:

$$(5-4)^2 + (5-5)^2 = 1$$

6.2.4. Individual questionnaire.

The individual questionnaire (Appendix 9) is composed of the Colorado Self-Report Measure of Family Functioning (Bloom, 1985), the Revised Family Communication Pattern Instrument (RFCP) (Ritchie & Fitzpatrick, 1990), the Family Routines Inventory (Jensen, James, Boyce, & Hartnett, 1983), and questions of the British Household Survey. This instrument gathers data about the Socio-ICT structure of the family, the socio-demographic structure, temporal structuring, boundary management and family environment. Each family member was asked to fill it out individually and post it back to the researcher.

6.2.5. Deprivation study combined with the Experience Sampling Method.

In order to come to an understanding of how everyday life is organised and how ICT fit into this organisation we wanted to come closer to what happens in 'real' life. We already established that asking family members to fill in a diary of activities for one week did not work all that well. The diary method is difficult because family members are asked to fill it up on a daily basis. A method that relies on respondents memory of what he has been doing. Therefore, we decided to search for another system to monitor family members time use.

The objective of this part of the study is to get an insight into family temporal structuring and the role that ICT play in the day-to-day organisation of family life. We therefore opted to combine the Experience Sampling Method (ESM) with a deprivation study.

The Experience Sampling Method (ESM) (Kubey & Csikszentmihalyi, 1990) is a method for gathering self-reports of thoughts, feelings, and actual activities of individuals in the course of everyday life. It consists of a questionnaire that the respondent fills up every time he/she is beeped.

Kleiber, Caldwell and Shaw (1993) used this method to study the leisure activities of adolescents. Students who agreed to participate in the experience sampling phase of the study were issued Seiko (RC 4000) wrist watches which were programmed to beep randomly at one of eight 15-minute intervals over every two hour period between 11.30 a.m. and 11.30 p.m. over the course of seven days. Students were instructed to complete a page of questions from a time diary immediately after each beep, to ignore those occasions when the beep was not heard or when they were not able to respond within 15 minutes. Csikszentmihalyi, Kleiber, & Larson (1986) used this technique by beeping respondents randomly from a central signal source. Contrary to what might be expected, they found this method not particularly disruptive.

In our study each family member was given a beeper and a booklet with a questionnaire based on the ESM questionnaire of Kubey and Csikszentmihalyi (1990). This questionnaire had to be completed each time they were beeped (Appendix 10). All family members were beeped at the same time. Previous research already investigated couples or a parent and a child (Larson & Richards, 1994) but we wanted to use this technique in a whole family approach. In our opinion, the beeping of related individuals can create a better insight into family functioning. Kubey, Larson and Csikszentmihalyi (1996) already suggested that this may lead to interesting findings. When using this beeping pattern the questionnaires of different family members can be compared to one another. This provides us with very interesting data about family routines and the family sub-systems that are at play.

The ESM is combined with a deprivation study based on a deprivation study conducted by De Meyer, Hendriks and Fauconnier (1985). This implies that a certain media appliance will be sealed up so that family members are unable to use it during a certain period of time. This part is conducted to get an even clearer view of the role that certain media appliances play in every day life. At first each family member started the ESM in a normal week before the deprivation, then two weeks during the deprivation and one week after deprivation. The beeping took place by means of an electronic organiser which was programmed up front and secured by a password.

For this research stage families were contacted by telephone in August 2000 to make an appointment. The entire ESM research lasted four weeks per family (between 11/09/2000-30/10/2000). In these four weeks, four contacts took place between the researcher and the families. The first contact consisted of a personal visit to introduce and explain what was expected from the family members. The questionnaire booklets and the electronic organiser were handed out. Families were also given instructions to think about which media appliance they would like to abolish during the deprivation stage. The second contact consisted of a personal visit to shut off the

media appliance chosen for deprivation and to have a debriefing about the first ESM week. Six families chose to exclude their computer, one family wanted to exclude their television, one excluded their radio, and one their VCR. In one family, family members could not come to an agreement. As a result, a part of the family did not use the computer while the other part did not use the television. In case the computer was chosen as excluded appliance, it was agreed that family members could make use of it when it was absolutely necessary for their work or for school purposes. However, then they had to fill in a form stating what they needed the computer for. After two weeks of deprivation, the families were contacted by telephone. At this occasion they were told that they could go back to make full use of the media appliance they were deprived of. The last contact took place a week later. It consisted of a debriefing interview with the whole family.

6.2.6. Ad hoc observations.

Although not a part of the original research design, it soon became clear that observations could be made in a particular manner. Due to the time-intensiveness of the different research parts (visits of over 4 hours per family) most families invited us to stay for dinner or to participate in other family activities (e.g. daughters rehearsing their school dance in front of their father). This led to ad-hoc observations that, in our opinion, are crucial for the continuation of the research project. These proved to be of great importance for the continuation of the research and the interpretation of the collected data.

6.3. Summary and conclusions.

The original research design started of from qualitative in-depth family interviews at the family home. An analysis of these 38 interviews indicated that different research techniques and a smaller sample size were in order. Especially, if we wanted to come to a better understanding of family's psychosocial structure. However, the 38 family interviews turned out to be of major importance for the introduction in the research field.

For the second research phase, we narrowed down the sample size to ten families with children residing at home. Furthermore, we opted to implement research techniques developed in the practice of family therapy and clinical psychology and proven to be useful for the study of 'normal' families. Techniques used are the Family Interaction Game, the family list, the family plan, and an individual questionnaire. In addition, we conducted a study combining the Experience Sampling Method with a deprivation study. The intensiveness of this second research phase led to ad hoc

observations in the ten families. Furthermore, the collected data are supplemented by interviewer's records (as well written as recorded through dictaphone and transcribed). Families were visited over a large period of time leaving enough time in between the different research sequences. This prevented the different periods and methods of data collection from influencing each other. In total, each family was contacted at least ten times, six times in person and four times by telephone, during the whole of the qualitative research stage.

However, we like to point out that opting for this research design means that the interpretation of the data greatly depends on the researcher's perspective although triangulation of methods was employed as a control and to create a greater internal reliability and validity. However, this methodological approach opened up a window of opportunities. At the end of data collection we realised that families were now ready for other observational techniques. Something we would like to embark on in future research.

In the following part (PART 3) the research results of the qualitative research stage are presented by family type. The analysis of the traditional families is presented in Chapter seven, the analysis of the intermediate families in Chapter eight, and the analysis of the multimedia families in Chapter nine. Chapter ten links these three chapters by integrating them into the theoretical framework.

PART 3: QUALITATIVE RESEARCH RESULTS

Introduction.

In the following chapters an analysis of the data collected in the ten families that participated in the psychosocial research design is presented. In order to accommodate an in-depth analysis of the results of each family we opted for the case study approach. The aim of the study lies in bringing the psychosocial structure of each family and its relation to the ICT structure to the surface. To do so, the theoretical framework is not interpreted as a checklist. On the contrary, the most important features of each family dynamic are presented. Only the concepts that are of importance in identifying the specific family theme are included in the discussion of family dynamics. As a result, the ten families are grouped per chapter by family type. In chapter seven the three traditional families are discussed. In chapter eight the analysis of the two intermediate families is presented. Chapter nine presents the five multimedia families. As such, a better understanding is gained of how different families, with different family dynamics, produce different or perhaps the same outcomes with regard to ICT use and ICT density. However, identifying these different family dynamics leads to a comparison between families, as presented in chapter ten.

7. Traditional families.

7.1. The Walters family.

7.1.1. Socio-demographic structure.

mother: Anna (°1960)

occupation: general assistant with a theatre company (administration, P.R.,...)

educational level: secondary education 2 (higher level)

net income per month: between € 1239,77 and € 1487,3

partner: Mary (°1958)

occupation: shop assistant

educational level: secondary education 1 (lower level)

net income per month: between € 743,86 and € 991,82

son: Adam (°1986)

13 years old (at the beginning of data collection)

14 years old (by the end of data collection)

The Walters family lives inside the ring of a picturesque historic tourist city. Anna is divorced and she and her son live together with Mary. When I started data collection this newly composed family had been living together for just two years. Anna works as a general assistant with a theatre company in the city centre. She works long hours since she has to attend the theatre performances in the evening. Mary works as a shop assistant in another city that is 100 kilometres from their home. She works part-time (Friday, Saturday, and Monday). Adam goes to school in the city centre.

7.1.2. ICT density.

The Walters family is the only family that remained traditional during the entire data collection process (table 7.1.1.). Their basic equipment consists of a television cluster and an audio cluster. Both are to be found as well in the living-room as in Adam's bedroom. The Walters family is not in possession of a computer cluster.

Table 7.1.1.: Frequencies and placing of the Walters family's media appliances at home (survey results)

media appliance	frequency	Placing
connection for cable TV	1	living-room
stereo	2	living-room, child's bedroom
radio alarm clock	2	Parental bedroom, child's bedroom
record player	1	living-room
cassette recorder	1	living-room
answering machine	1	hall
game console	1	child's bedroom
colour TV	1	living-room
black-and-white TV	1	child's bedroom
VCR	1	living-room
radio	2	living-room, child's bedroom
CD player	2	living-room, child's bedroom
walkman	1	
telephone	1	Hall
handheld	1	

The television cluster in the living-room contains a colour TV with a cable connection and a VCR. The audio cluster consists of a stereo containing: a radio, a cassette recorder, and a CD-player. To Anna and Mary, the most important media appliance is the VCR. Since Anna works long hours, they tape their favourite programmes (mostly detectives) and watch them together at weekends or on Wednesday afternoons:

Mary: I watch television and video.

Interviewer: (*to Anna*) And you?

Anna: Yes, it's the same for me. Actually, I think we use the VCR more than the TV.

Mary: Yes, that's possible.

Anna: We only put on the TV to watch the news and we tape all the other stuff.

Mary: And then we watch it when it suits us.

Anna: Actually, it's more via the VCR that we watch.

Interviewer: Is this because you've got other activities?

Anna: Yes, I work evenings. We regularly go to the theatre. So we tape things and when I'm free in the evening we get an early night.

Mary: Yes, (*laughs*) romping.

Anna: Yes. And so we tape things and watch them during the day.

Mary: Or when the weather is bad.

Adam has his own kingdom in the attic where his bedroom is. It is equipped with a television cluster and an audio cluster. The television cluster consists of a game console connected to a black and white television. This television set does not have a cable connection since it is only meant to play video games. As such, Adam actually uses his television cluster as a computer cluster. The game console is rather outdated. As a result, Adam does not use it all that much. However, as we shall see, at weekends Adam lives in a multimedia environment where he has a new game console at his disposal.

7.1.3. A family with conflicting family themes.

7.1.3.1. Internal relationships.

The key factor in the Walters' family dynamics is the parental divorce and the way Adam copes with it. The divorce was difficult for Adam since he is not able to let go. He clings to every person that is dear to him. A behaviour that Mary does not understand:

Mary: (*about her family plan*) I'm putting myself as a neutral person. The one that looks at him (*refers to Adam*) is Anna, it's her son, that's normal isn't it? It's her blood. However, he is as demanding towards us, also towards me, as towards his father, or his grandmother. He just can't let anybody loose. So you could think that it is a child that had a lack of love, but that isn't true, on the contrary. He's drowned in love (*laughs*). It's never enough. I've already said to him: 'It's time you got yourself a girlfriend.' Well, maybe it's everything together. He's got such a huge need for love that it gives me the jimjams and I say to him: 'Please, boy! Act normal!' You can have a lack of love or too much love but he certainly isn't cut short, my god!

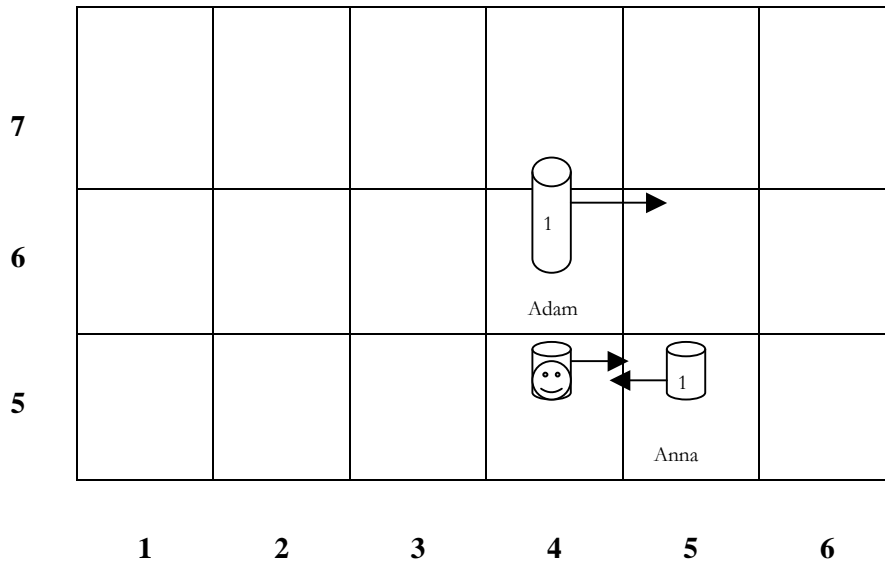
Mary finds Adam's behaviour suffocating. It is especially difficult for her since, as Mary and Adam both indicate, they are only related to each other as a result of their relationship with Anna:

Interviewer: Can you put your family on the board?

Mary: Yes, that isn't difficult. Anna and I, I'll put Adam over there. I regard him as part of the family; he's a unit with his mother and a close relationship to me.

Mary externalises this ‘close relationship’ by putting Adam at a dyadic distance of one on her family plan (figure 7.1.1.). Furthermore, she heightened Adam’s figurine in order to depict the fact that he is so demanding towards the family system.

Figure 7.1.1.: An excerpt of Mary’s family plan.

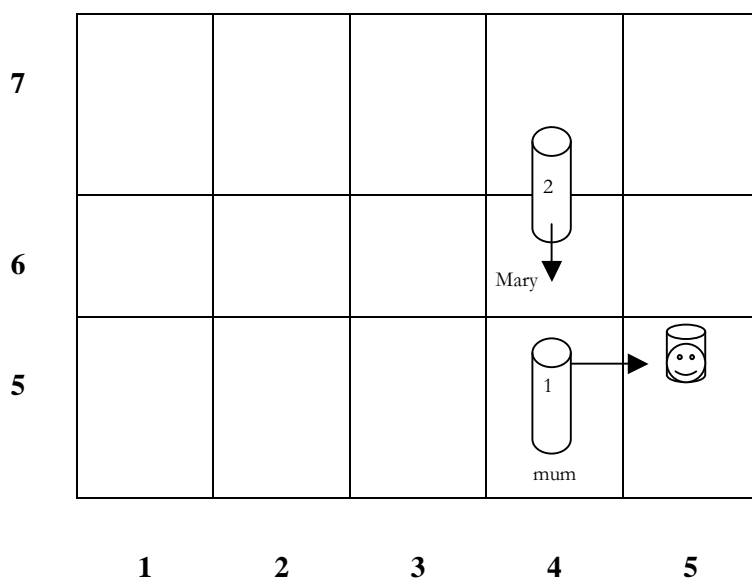


However, her family plan is also an indication of a problem that is related to the simple fact that a child is involved in a new relationship. Before the family moved in together, Mary had always lived by herself. Although it has been two years, she still has difficulties adjusting to a life with a child. In the following excerpt she explains why Adam does not look at her on her family plan although he is placed at a dyadic distance of one:

Mary: Actually, I know I’m not supposed to feel like this but I mustn’t hold back these feelings. Actually, the way I feel it, Adam has an immense... Well, I’m not used to... It’s the first time that a child is involved. My sisters all have children, but hey, that’s their choice. I’ve never chosen to have children, although now I feel as if I’m ready for it. (*laughs*) But I’m still learning and it’s a tremendous task. Sometimes I feel so suffocated by it because he’s got such a huge influence. He’s a determining factor and I’ve never known this in a relationship. It’s a third one that can’t be ignored. It’s an inevitable factor that’s so determining.

The difficulties in their relationship also emerge in Adam’s family plan (figure (7.1.2.)). He puts Mary at a dyadic distance of two while looking away from him and clearly portrays Anna as the binding element. Furthermore, Mary and Anna are heightened. As Adam explains, Anna has a big influence because she is his mother. Mary, on the other hand, has a big influence since she is the intruder that is stricter than his mother.

Figure 7.1.2.: An excerpt of Adam's family plan.



In their individual questionnaire, both Adam and Mary agree with the items of the conformity orientation which state that children have to obey their parents. However, Mary has no biological bond to Adam, and finds it hard disciplining him, especially, since her conception of child raising differs from Anna's. As a result, she complied with the fact that she has little input in Adam's upbringing. This is also reflected in the following excerpt about the family's purchase of media appliances:

Mary: It's always Adam that asks for things (*means media appliances*). My needs – but I guess you figured that one out by now – are very modest. Although I'm not against it. In general, I'm not so eager. I'm not a 'possessor'. But I find it interesting. Adam is in his 'useless things' phase and those are all expensive things...He knows that you've got to work for your money but he gets it anyway, so he takes it for granted. But luckily it's changing a bit. With regard to this subject, I find that he hasn't been raised consciously enough. But I've put up with it. It's up to Anna to raise him and I can but follow her. I'm not in the position to determine anything. I've complied with her wishes, it's her child. But he doesn't realise that he has to save up and buy things himself. Well it worked for the boxing ball. But take, for example, his discman. He had to have it, he had to have it! So he got it, he took it with him on one trip and after that we've never seen it again. In the mean time he asked us whether he could sell it, and he did. I mean: that's useless! And don't forget it costs between fifty and seventy Euro, but that doesn't ring a bell with him. He sometimes comes to us with ideas and then I know that it costs, for example, 150 Euro, and then I think: 'Son, it doesn't work like that!' It just causes me to panic. But I've learned to shut my mouth and let her (*refers to Anna*) handle it.

...
 Anna: Adam is very slow. Mary will say that he's lazy, but that isn't true. It's just, he's always thinking, busy in his head. That's really strange with Adam, for example, when he's busy doing a sport he's as physical as the others, he will do everything according to the rules and with workmanship. But, he's the last one to come out of the locker room when the game is finished. He will not force himself, that's true.

Interviewer: So he has a calm personality?

Anna: Yes, I've got a very easy-going son. But not everybody regards this as something positive. I'm his opposite. I'm very good at fussing about. So it took some time to get used to him. But as a mother you tend to see things day by day. Some people tell me I should force him, but I think that's no use. If you try to force him he will hit the roof and then you can't do anything with him anymore. If you're thirteen or fourteen and you haven't got it in you, I know it's no use forcing it.

In their individual questionnaires, family members all indicated that their family is conversation oriented. Their family moments for conversation are a daily routine:

Interviewer: What do you do when you come home from school?

Adam: Mostly I stay downstairs for half an hour.

Mary: To chat a bit.

Adam: Yes, to chat, to settle down. Then I go upstairs, to study or to listen to some music.

...

Mary: We have breakfast together and in the evening we have dinner together. That's important, that you have a moment to have a serious conversation or to communicate with each other.

The importance attached to the conversation orientation is the main reason why Mary and Anna do not want to have more media appliances. During the interviews they all indicate that they love each others company. Adam, for example, comes downstairs to watch television together with Anna and Mary. They fear that more media appliances will lead to a more asocial behaviour:

Mary: I think media appliances make a person asocial. You can see it when the television is turned on, conversation stops. Well, if there is someone hanging there gazing at the screen, you don't say anything anymore, do you?

Anna: You are not allowed to say anything.

Mary: So I'm a bit anti.

Interviewer: Anti?

Mary: Yes, because I also notice I have this behaviour. For example, when I'm listening to the radio and Adam starts chatting, I say: 'hush, hush.' Well I find this...I'm becoming more peevish and that isn't supposed to happen.

...

Interviewer: Since there is no cable connection, he (*refers to Adam*) can't watch television here (*at the attic*)?

Anna: I don't want it. If he would have his own TV, you don't have a family life anymore. Or you agree upon which programmes you will watch. Perhaps sometimes it might come in handy but actually he doesn't want it either. But if we would say: 'OK, you can have it upstairs.' He will watch it. He understands why we aren't doing that. It's games only.

Although there is a fear of compartmentalisation they do agree with Adam's computer game playing. It is clear that this is only due to the fact that Adam's game console is outdated and he hardly uses it. As such, it does not pose a threat to family interaction.

7.1.3.2. Relationships with the outside world.

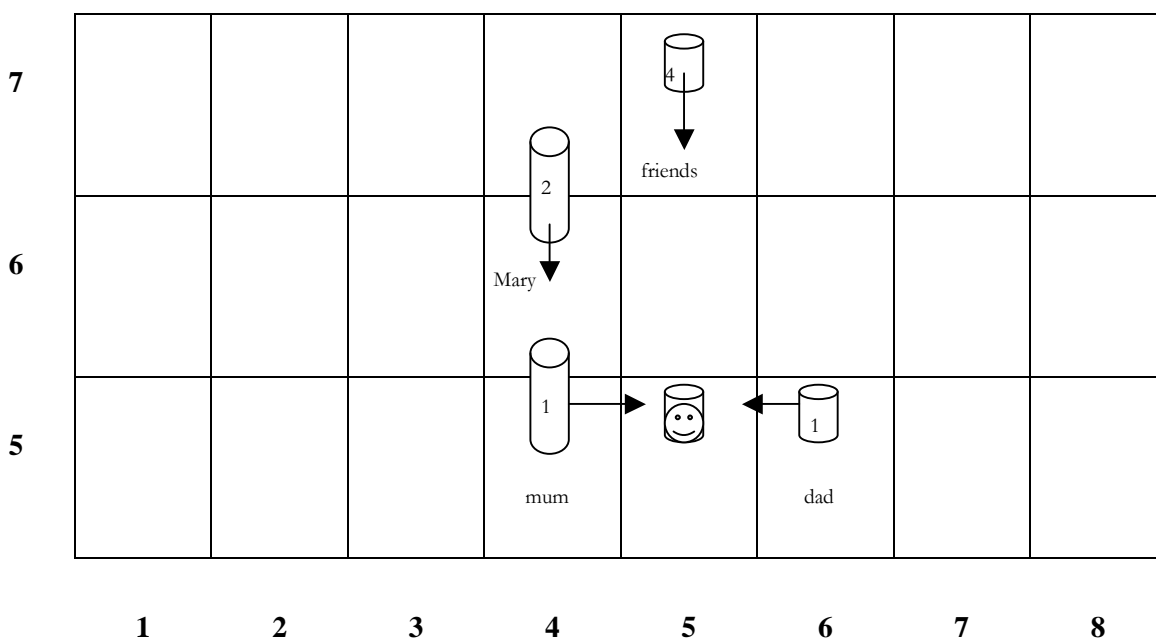
The relationship between Adam and his father determines the way in which he relates to the outside world. Adam's father does not appear on Anna's or Mary's family plan. However, they do acknowledge that he still plays a major part in Adam's life:

Interviewer: Would you put Adam's father on your plan?

Anna: No. Mind you, he'll absolutely be on Adam's plan and even closest to him.

Indeed, Adam still regards his father as a part of the family. Adam's family plan (figure 7.1.3.) shows that Adam puts his father as close to him as his mother (dyadic distance = 1). However, he considers him to be less influential than his mother or Mary.

Figure 7.1.3.: An excerpt of Adam's family plan.



As such, Adam's family plan provides a clear analysis of how he pictures his family. His mother is the closest and most influential person while his father is close to him but not so influential. Mary, on the other hand, is influential due to the fact that she has a relationship with his mother. His family concept exceeds the boundaries of the Walters family and created a family of choice. This does not bother Anna and Mary. On the contrary, they find it convenient. It gives them the opportunity to have some space as a couple. This is supported by their ESM reports. When Adam stays at his father's for the weekend, Anna and Mary spend lots of time together. For example, one Sunday they are busy planting flowers in pots on the terrace while listening to the radio and both singing along with the broadcasted songs.

Another implication of the parental divorce is the spatial relocation of the family. Adam had to move from outside the city to the city centre. As a result, he had to change school and leave his best friends behind. Even though this is already two years ago, he is still not over it. He does not seem to be able to adjust to his new life:

Interviewer: Does he (*refers to Adam*) still see his friends?

Anna: Yes, I think two or three of them. He just can't let go. Last year, this really was a problem. Now, he starts making friends at his new school, but it has already been two years.

Interviewer: Yes, if you change schools...

Anna: But there are so many children that have to change school at that age. Everybody had to change school there because there was no secondary level.

Interviewer: So he had to go to secondary school?

Anna: He'd rather stayed in the same village and go to secondary school there than change and go to school in the city centre, while this is practically next door.

As a result, the weekend routine is crucial to Adam. At weekends he goes to his father. However, since his father has to work on Saturday, he spends most of his time at friends. Therefore, he frequently contacts his friends during the week about their weekend plans:

Adam: I like to have my hobby during the week, because I reserve the weekends for my friends, to play with them.

Interviewer: You go to your dad at weekends?

Adam: Yes, and there I see all my friends.

Interviewer: And each weekend you play with them?

Adam: Yes. That's mostly on the Playstation, together with one or two friends.

...

Anna: Adam does Taikwondo. It's three times a week but he only succeeds in going twice. On Saturdays he doesn't engage himself in anything. He once tried it but he can't keep it up. Normally Taikwondo is on Monday, Wednesday and Saturday. But on Saturday he goes to his friends and he doesn't have the discipline to leave his friends to go to the Taikwondo lessons.

Resulting from this weekend arrangement, Adam finds himself living in two different ICT environments. During the week he lives in a traditional family with few media appliances. At weekends, this situation changes when he goes to his father who is in the possession of a multimedia PC and an internet connection. He then enters a multimedia family type:

Adam: I have a television set without cable connection and without an aerial. It's only to play games.

Interviewer: Do you often do that?

Adam: No, not really. It's an old game.

Mary: But! But! Adam say it! You've got two homes!

Adam: Yes and at my father's I have a more modern version. And I play a lot on that one.

Mary: Well, he goes there at weekends so a lot... It's arranged like that. During the week he isn't allowed to watch movies. And at weekends from time to time, he's allowed to watch a movie. Only in the evening or he may stay up a bit later to watch a movie. The same applies to his computer games, at weekends.

Interviewer: (*to Anna*) Did you make these arrangements together with his father?

Anna: I don't interfere with that. I mean, he's just there for such a small amount of time, so there's not much that can go wrong.

Mary: It's arranged a little bit.

Anna: We say that he can't do it here. Well, I suppose it won't hurt if he does it over there.

In order to combine these two different ICT environments, Adam tries to incorporate features of the multimedia environment into the traditional environment. When he got a new Playstation at his father's, he took the old game console (a Nintendo) with him to his mother's house.

Mary: He saved up to buy a Playstation at his dad's but then the Nintendo became too much. So he asked to bring the Nintendo here. So, since we give in too easily, we said: 'We'll buy you a television set on condition that you do your homework here, and only use it as a last resort. Because when you go to your dad at weekends it's only to play so...'

However, Adam does not make full use of the multimedia environment. He is mostly interested in the Playstation he's got at his father's place:

Interviewer: You've said you use internet at the library.

Adam: Yes.

Interviewer: Do you do that very often?

Adam: No, recently not anymore. At my dad's, he also got internet on his computer. Sometimes I use it there. But I didn't recently.

Interviewer: Why not?

Adam: I'd rather play on my Playstation when I'm at my dad's.

Interviewer: Why do you prefer playing on the Playstation?

Adam: Well, the games are real fun. Yes, I guess that maybe I'm a bit of an addict (*laughs*).

Adam turned into a weekend game playing addict. His father's internet connection is even used in function of the games he plays on the Playstation:

Adam: I use the internet for games.

Anna: (*explains*) To move to another level.

Interviewer: The codes for the game?

Anna: Yes, to move to another level. In function of the game he's playing!

Adam: I search for cheat codes and then I think, Wow, yes this is great, I'm really going to show that to my friends, that I can beat them. But if I really want to finish a game I don't use the cheat codes, or I only use the codes for the weapons, or so. But I do finish the whole game then.

This specific type of internet use, gives Adam the opportunity to bond with his friends. Whereby, the cheat codes found on the internet and the computer games are used as tools for peer bonding.

7.1.3.3. Family theme.

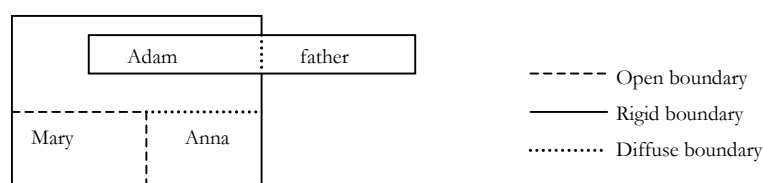
In their individual questionnaires, Anna and Mary indicate that they do not believe that there is an external force that controls their lives. Adam, on the other hand, indicates that there are three external forces that control the family's life. He has written them down in the margin of his individual questionnaire. The first one is Anna's work. She works long and irregular hours and as a

result she is hardly at home during the week. Since Adam is away at weekends, he misses his mother. The second determining factor is Mary's illness. Although it was not reported during the interviews, in his individual questionnaire Adam indicates that Mary suffers from a disease and that this has implications for family life. The last determining factor is a more personal one. Adam is still not happy with the fact that he had to change schools due to the divorce. He reports that to him this is an external element that influences his life.

In addition, the divorce created three different family sub-systems (figure 7.1.4.):

- 1/ a 'marital' sub-system (Mary and Anna)
- 2/ a parent-child sub-system (Adam and Anna)
- 3/ a parent-child sub-system (Adam and his father)

Figure 7.1.4.: The Walters family's family system.



These three sub-systems all have difficulties relating to each other. Furthermore, these different sub-systems reflect a difference in the conception of family hierarchy. While Anna and Adam's father are laissez-faire type parents, Mary is authoritative. These parenting styles are related to two different family themes. Mary's family theme is: 'Act responsibly.' While Anna's family theme is: 'Everything in due course.' 'Don't push anything.' Since this is a relatively recently composed family these family themes, resulting from previous life stages, produce conflict:

- Interviewer: Does Adam do household chores like doing the dishes or ironing?
 Mary: No, perhaps if you'd ask him five times. Cleaning, he doesn't know the meaning of the word! The other day he was saying something about cooking. I always try to keep my mouth shut... I hope that it will change eventually, but it doesn't. (*ironically*) Life is so easy, why change it? Mum or the other mum will do it anyway. So he said to me: 'Cooking, that's all you have to do.' And that really pisses me off. I know, I should ignore it, but it's so difficult for me. He's got such an innate macho attitude, I call it. Sometimes I think: 'What did we stand on the barricades for, for all these years?' (*laughs*) So every time we (*refers to Anna and her*) have a fight over it, a discussion, Anna says: 'He will do it when the time is right.' But then I tell her that the time is now; he has to learn it when he's young. So then I told her that she spoils him... For example, in the morning she carries his satchel downstairs, and then I start thinking: 'Please!!' But then she says: 'Otherwise he makes such a noise.' I would handle it differently; he would have to learn how to participate early on. But now he has come to this age and actually, well he isn't my son. There are certain child

rearing ideas that aren't wrong but that I don't agree with, but well. It's her (*refers to Anna*) life and I cannot interfere with that. And, of course, there is no proof that my ideas are any better, on the contrary.

In Adam's perception, Mary is a strict person. He feels that she does not allow him to do anything. However, he tries to understand her by finding a motive for her behaviour. An explanation that goes back to Mary's family theme:

Interviewer: Who influences you the most?

Adam: I think, especially Mary, because she had a very strict upbringing, the way my mum explains it. She allows less. But on the other hand there are things that she does allow me to do.

However, as a transition phase, in order to maintain the newly composed family, a new family theme emerges: 'Respect one another.' As Mary states:

Mary: There are no rules but we try to work towards mutual respect.

The family themes from previous life stages as well as the new family theme also emerge in ICT density and ICT use. While Mary wants Adam to act responsible when it comes to purchasing new ICT, Anna just gives in straight away. However, they hardly argue about it since their new family theme forms a silent agreement that forces them to respect one another.

7.2. The Griffin family.

7.2.1. Socio-demographic structure.

mother: Christine (°1962)

occupation: lecturer at an institution of higher education

educational level: university + Ph D

net income per month: between 1239,77 € and 1487,73 €

father: Paul (°1960)

occupation: doctor in biological sciences (researcher at a university)

educational level: university + Ph D

net income per month: between 1983,63 € and 2231,59 €

daughter: Monica (°1991)

8 years old (at the beginning of data collection)

9 years old (by the end of data collection)

daughter: Jennifer (°1993)

5 years old (at the beginning of data collection)

7 years old (by the end of data collection)

son: Travis (°1995)

3 years old (at the beginning of data collection)

5 years old (by the end of data collection)

daughter: Amber (°1999)

born at the beginning of data collection

1 year and a half old (by the end of data collection)

daughter: Natalie (°2000)

born one month after the end of data collection

The Griffin family built their house in the residential area of a suburb of a middle-sized Belgian city. Christine works as a lecturer at an institution of higher education in the city-centre. Paul works as a researcher at a university nearby. Monica and Jennifer attend a Freinet school in the city-centre. It is a school with a special educational philosophy. The curriculum is based on the children's world of experiences. As such, the children are the major actors in the educational system. It is a school system with an emphasis on open discussion and responsibility. Travis attends a different school.

7.2.2. ICT density.

At the beginning of data collection the Griffin family had the lowest ICT density of the ten selected families. They only had a small television set that was located in the children's playroom but was carried around when the parents wanted to watch something. Furthermore, their study was equipped with a common PC and their living-room contained an audio cluster consisting of a stereo.

Table 7.2.1.: Frequencies and placing of the Griffin family's media appliances at home (survey results)

media appliance	frequency	placing
stereo	1	living-room
radio alarm clock	1	parental bedroom
cassette recorder	3	living-room, parental bedroom, playroom
cordless telephone	1	
PC	1	study
colour TV	1	portable
radio	3	living-room, playroom, portable
CD player	1	living-room
walkman	1	
telephone	1	parental bedroom

However, by the end of data collection, the Griffin family had a large television set in the living-room and a new multimedia computer in the study. In addition, they were connected to the internet. As a result, they made the transition from a traditional family into a multimedia family.

7.2.3. A family in bounded expressiveness.

7.2.3.1. Internal relationships.

The children have a free, child-centred upbringing. This is externalised in the individual questionnaires by the indication that the family is high on expressiveness. The children are constantly stimulated to express their opinions and feelings. The family dynamic thrives on the fact that everything is done in consultation with the children. This becomes clear in the FIG. When the family has to design its ideal home together, the children are deeply involved in the decision making process. By the time the family had to put in the media appliances, Paul and Christine were completely drawn into the children's fantasies. They did not regard any remark as foolish:

Paul: *(to the children)* What do you find most important?

Monica: Most important, that's really difficult.

Christine: What's something that you couldn't do without?

Jennifer: Electricity so that you can use everything.

Paul: That's right; we always have electricity, so the electricity enters the home here. So that's the wire for the electricity. And then, what's next? Out of all the appliances I've summed up, which one would you like to have?

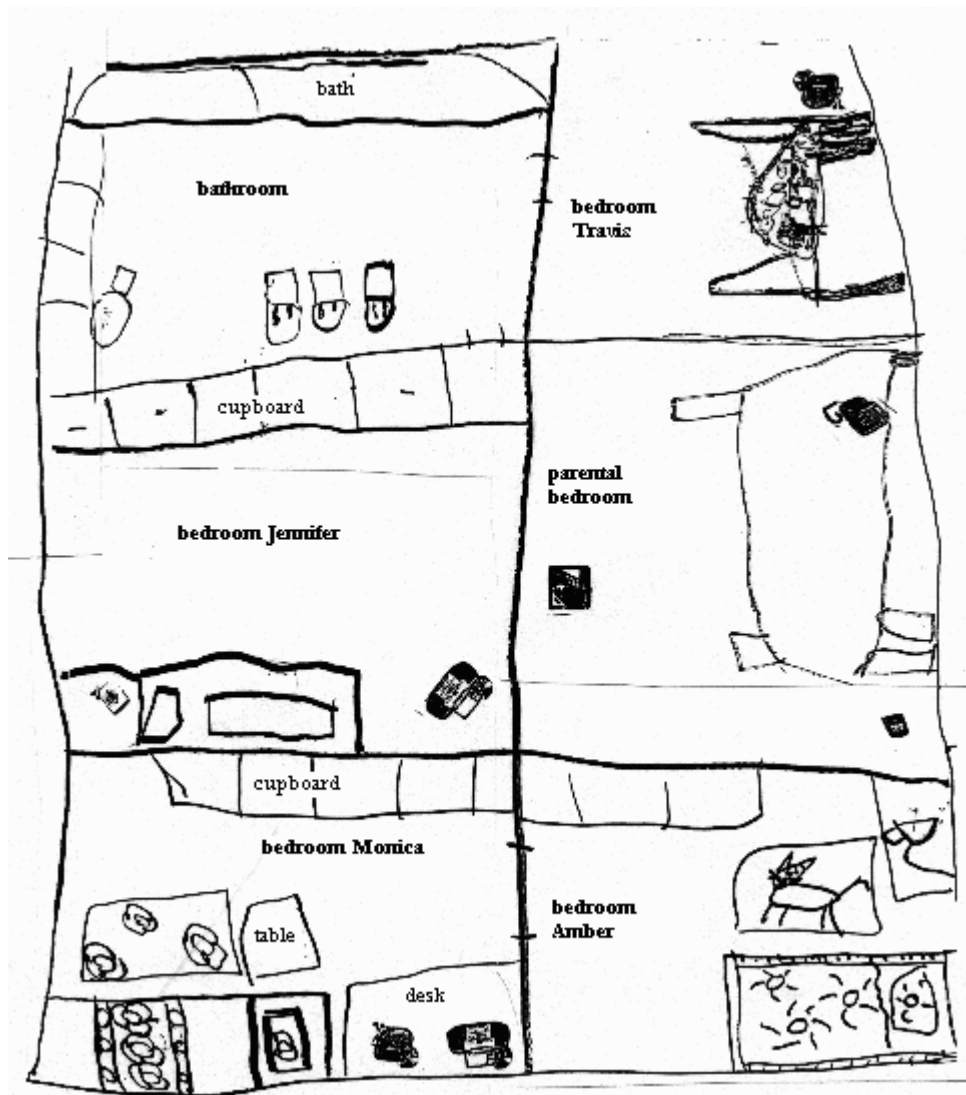
Monica: Oh, I just don't know.

Paul: A large television set?

Christine: Yes.
 Paul: And a connection for cable TV?
 Jennifer: That's important.
 Monica: And a satellite dish.

As a result, the outlook of their ideal home resembles a child's drawing (figure 7.2.1).

Figure 7.2.1. The design of the upstairs of the Griffin's ideal home.



However, constantly involving the children in the family decision making process proves to be a heavy burden. Especially, since Paul and Christine have a busy schedule. Sometimes, this causes them to lose their patience. As a result, they become very strict. This confuses the children:

Interviewer: What happens when you have a fight? Do you get punished?
 Monica: Yes, well mum gets very angry. Sometimes we're punished, sometimes we're not, so then first she talks to us and then we go back and play, but sometimes we're also punished.

This problem also emerged during ad hoc observations. At one time, Christine wanted to go upstairs to wash Amber and Travis. However, Travis did not want to listen to his mother when she told him to follow her. He stopped in the middle of the stairs. Paul intervened and started a discussion with Travis on the stairs. But Travis laughed at him. Paul then said: ‘Do you think this is something to laugh about?’ ‘Do you see me laughing?’ He then continued discussing the fact that Travis had to go to bed. The discussion ended when Paul grabbed Travis by the arm and led him upstairs.

Furthermore, Paul and Christine are not always on the same line with regard to the execution of educational principles. This adds to the confusion and creates arbitrariness, a problem that becomes especially apparent when the rules about television viewing are discussed. At first, the children were allowed to watch television from the moment they got home from school until dinner. After dinner they had to go to the bathroom and wash themselves. Thereafter, Paul or Christine read them a bedtime story. However, it seemed that Travis and Jennifer were becoming television addicts. Therefore, Paul decided that they could only watch television on Wednesday and at weekends. On the other schooldays the television set was turned off. However, Christine sometimes switches on the set during those other days in order to have some peace and quiet when she is taking care of Amber. Paul acknowledges this. When the ESM started the children had gone back to their original behaviour. They watched television when they came home from school. However, Paul stressed that this would change again:

Paul: Compared to other children, our children are really inveterate TV viewers. Other children are quickly bored by it. Our children are stuck to it, well Jennifer less. But Travis is able to watch it intensively and afterwards he’s completely broken, knocked out with fatigue. So afterwards when he comes at the table for dinner, he’s dull. This year I introduced the rule that they cannot watch TV during the entire school week, except for Wednesday. Christine is a bit more tolerant on that point, but that’s understandable. When you’re at home and you’ve got to make dinner and you’re on your own and they are a bit difficult, it comes in very handy to put on the television. We were really annoyed by the fact that they didn’t want to come to the table for dinner or that they were in a bad mood after watching television. Or they are tired, it really hits them and then it’s not pleasant anymore at the table. So then we said: ‘It stops here!’ Because when they keep on playing they are more fresh and joyful and it’s just more relaxing in the evenings in the family. But Travis really looks forward to it. Every morning he asks: ‘What day is it?’ And when it’s Wednesday he shouts: ‘Today it’s television!’ (*laughs*). And now, for example during the Holidays, they watch TV each day, while I tend to say: ‘No, just let us implement the regime we’ve got during the school-year.’

High expressiveness is clearly bound by temporal structuring. The main factor is the parental lack of time. As Paul indicates in his individual questionnaire this leads to verbal conflict, a fact illustrated, inside the parent-child subsystem. In addition, it also leads to verbal conflict inside the marital subsystem and inside the sibling subsystem. Verbal conflict inside the marital subsystem

emerges because Paul and Christine do not have any spare time as a couple. They are totally occupied with their work and their children. At work, they live under the constant demands of their job. At home, they live under the constant demands of their children. This creates tension in the marital subsystem:

Interviewer: Who are you going to put first on the board?

Jennifer: Mum

Interviewer: Who's next?

Jennifer: Dad, because they sometimes have a quarrel.

The children have absolute priority. It seems that Paul and Christine want to make up for their busy work schedule by taking the children somewhere or doing fun activities at weekends:

Interviewer: *(to Paul)* Do you have any hobbies in your spare time?

Christine: It's bad isn't it *(looks at Paul)*?

Paul: For the moment...

Christine: Playing with the children.

Paul: Yes, all my spare time is spent doing a little bit of gardening but at any rate with the children. For example yesterday, I played with the children or we go somewhere.

Christine: It's so hectic.

Interviewer: And are there any activities that you do together, as a family?

Jennifer: Baking pie and cake.

Christine: That too.

Paul: *(enthusiastic)* Yes! And what do we also bake ourselves?

Monica: *(enthusiastic)* Waffles!

Paul: *(enthusiastic)* What do we also bake ourselves?!

Jennifer: *(enthusiastic)* Waffles!

Christine: What do we bake together on Saturday?

Paul: *(builds up the tension)* What are you, you are the best...

Travis: *(enthusiastic)* Pizza baker!!!

Paul: Yes pizza baker. And sometimes they do the dishes.

Monica: One time, I even did that all by myself.

Paul: And this week you *(refers to Monica, Jennifer, and Travis)* vacuumed. However, they stopped when dad came in and told them how it should be done. And they work in the garden. You've helped me sowing.

Jennifer: *(enthusiastic)* Sowing!!

Paul: And yesterday we went on a trip together.

Monica: *(enthusiastic)* To the largest lake in Belgium!!

Jennifer: *(enthusiastic)* A cascade!!

Interviewer: A cascade in Belgium...

Paul: *(mysterious)* The highest one, will she *(refers to the interviewer)* know what it is?

Interviewer: Yes yes.

Paul: *(to the children)* You see.

Interviewer: And there's a recreation-ground.

Jennifer: *(enthusiastic)* Yes, and Co *(the name of the cascade)*!

Monica: *(enthusiastic)* The cascade of Co!!

Interviewer: And did you enjoy it?

Travis: *(enthusiastic)* Yes!

Paul: And what did we do at the picnic? *(pauses)* we've played hide-and-seek.

Travis: Yes and I fell into a bunch of nettles.

Christine: That really hurt, didn't it son?

Monica: *(enthusiastic)* And there were also red ants in our car, very big ones!!

Jennifer: *(enthusiastic)* A very big bunch!

Monica: *(enthusiastic)* Dad discovered an ants' nest!

As a result, Paul and Christine were especially astonished by the fact that their life was not at all challenging. They noted this after the completion of the ESM reports:

Paul: You know what I meant earlier, when it comes to those questions... You know the questions whether or not the activity was a challenge, most of the time I was sitting in the sofa or doing the dishes. I just notice that I don't do any challenging activities (*laughs*). I never have to concentrate for those things. Furthermore, I don't have a distinct feeling in the other direction. That's just because you're at home doing those things. Well, now I'm not really all that well so I think: 'I'm so tired.' But I never had to fill in: 'I've just had some good news' or 'it's fun.'...

Christine: Yes, I mean, a challenge?? Household tasks are just things that come with having a household.

...

Paul: If I look at it like that I start thinking: 'Well, well, I've got to change my life because...' (*laughs*)

Furthermore, due to their lack of time, Paul and Christine stimulate their children to be independent. Media appliances, for example, are put in 'easy access' areas such as the playroom.

The children are stimulated to use these ICT but they are not guided by their parents:

Paul: We've got the small computer in their playroom. They can put that on themselves. The only thing they can do on it is play some games but it's already ten years old so... With regard to other things they've got to ask for permission. They don't have free access. In consultation with them we assess whether or not they can use it.

...

Monica: Mostly the three of us watch television together.

Interviewer: Monica, Jennifer, and Travis. And do your parents watch it with you?

Monica: No, almost never.

This emphasis on independence and expressiveness evolved into an individualistic attitude. As a result, the children do not get along at all and tell on each other:

Paul: Travis sometimes forgets to ask if he can put on the television, don't you?

Travis: Yes (*laughs*)

Christine: Sometimes the girls say to me: 'Mum the television is on.' So then Travis put it on.

Paul: The girls never do that.

Christine: So I think: 'How come the set is on?!'

A similar example occurred during an ad hoc observation. Travis leaves the dinner table to watch television. Jennifer is quick to notify Paul of this fact. Paul then tells Travis to come back to the table. Furthermore, the children are jealous of the fact that Christine is especially occupied with little Amber. As Jennifer states while filling out her individual questionnaire:

Jennifer: Mum hasn't got enough time for me. I wish she didn't have to cook, I wish somebody else could do that. I would like to play with mum, but she's always busy with Amber, because she's got to be fed and stuff. Since she's only a baby, she needs her mother the most.

Furthermore, when every quarrel is resolved by negotiating with the children what has to be done it leads to endless tiring discussions. For example, during an ad hoc observation, Jennifer wanted to

read a book that belonged to Monica. She had already taken it but she was not reading it. Monica started shouting that Jennifer could not read the book. Paul interfered, sat the girls together, and the three of them got into a long discussion about whether or not Jennifer could read the book and under what conditions.

However, high expressiveness also creates connectedness. As becomes clear from the numerous discussions that are held at the dinner table:

Paul: Sometimes I have to say that they should eat too. Otherwise it's only talking. We discuss a lot during dinner. Like when Amber was born. All the discussion about how the baby should be named. The children always made suggestions.

The previous excerpt is confirmed by ad hoc observations. For example, at one time Paul asks his daughters what they have been up to at the dance camp that day. Jennifer and Monica start telling about a special dance they have rehearsed at the dance camp and that they will perform at the end of the week. Later on they give a preview to their father in the living-room. Furthermore, discussions at the dinner table often evolve around television programmes:

Paul: We often talk about television. There is nothing on it!

(Monica laughs)

Paul: (*jokes around*) Because there's only stupid cartoons. What programme is it?

Monica: No, I like 'Samson en Gert' (*a children's programme*).

Paul: I talk about it but that's because you (*refers to his children*) tell me about that at dinner. Travis then tells about what the major (*a character in the show*) did. Actually, Travis often talks about television programmes.

Christine: Yes, but the others also, well they tell everything that happens in it. The others also participate in that. It's often a topic of conversation. Well that's due to the fact that the programme precedes dinner of course.

It is clear that dinner time has a special meaning ascribed to it. It provides the family with an opportunity to talk and creates a feeling of togetherness. This indicates that high expressiveness is positive when there is enough temporal space.

7.2.3.2. Relationships with the outside world.

The family's temporal boundedness is also reflected in their relationships with the outside world. Since it is already difficult for the Griffin's to manage their own family life, they hardly have contacts outside the family. Even contacts with the extended family are scarce:

Paul: When the number of children increased, the visits to the grandparents decreased. After a while we wanted some time for ourselves, for our family. It also depends on age probably. Nowadays we sometimes tell the grandparents that we're not coming to visit them at weekends, they can also come to us. So then we go and visit friends. When we have a feast, like when one of the children is baptised, our friends are also

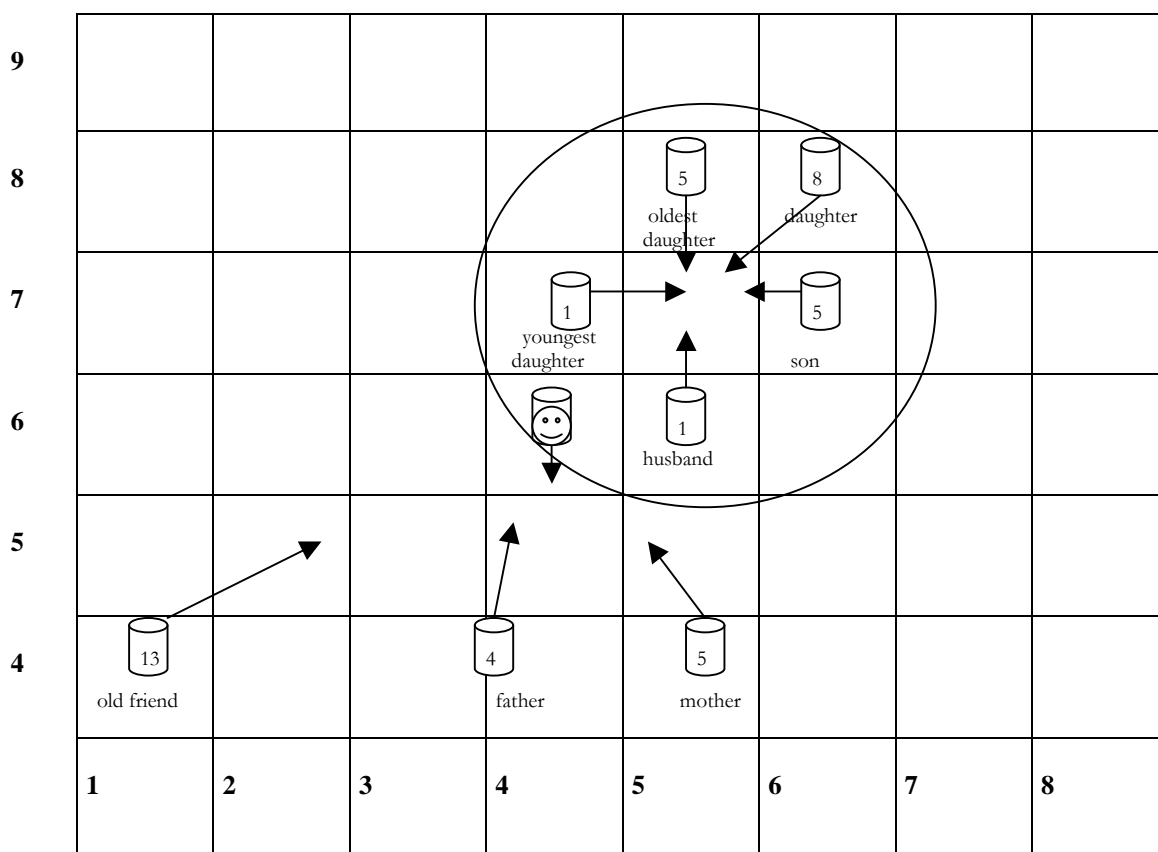
part of that. So we don't just celebrate it with the family. Sometimes the bond with friends is better than with family members that you'll only see for three times a year. But we're even obliged to manage our spare time. At weekends we're normally busy doing household tasks and when you want to do something else as well, you've got to organise yourself very well.

Although Paul's reason for not visiting the grandparents appears to be altruistic, the excerpt indicates that more selfish reasons are at the basis of this decision. Paul argues that the family wants more time for itself however; family time is replaced by visiting friends. Some friends are even regarded as family. As such, they are invited to typical family occasions. As Christine argues:

Christine: When I'm with some of my friends I've got this feeling that they are more of a family to me than others who are true family but with whom I don't have such a good relationship.

As such, they are the extended family of choice. In this case it can even be taken literally since they are chosen over the extended family. The Griffin's main group of friends originates in the Freinet school. In this type of school system the parents are expected to contribute substantially to the school. Parents are divided in workgroups that cover different areas of school government such as: fund raising, day-to-day government, maintenance. As such, parents are more involved with the school than in a 'normal' school. This creates a bond between parents that goes beyond the school boundaries. The Griffin's, for example, went on a weekend with friends they have made at the Freinet school. During an ad hoc observation Jennifer and Monica go on about what fun it was. They tell me that they went hiking in the woods and that they saw a wild boar. They also had to go through the mud and take little paths. After their story, they tell Paul that they want to do this more often. However, Paul says: "Sure it was fun but in the meantime all the work at home is still there." He adds that there is no question about going on trips more often. Although they regard friends as family and spend some weekends with them it remains limited. This temporal boundedness leads to rigid boundaries around the family system. As Christine indicates in her family plan by drawing a circle around the core family (figure 7.2.2.):

Figure 7.2.2.: An excerpt of Christine's family plan.



7.2.3.3. Family theme.

The Griffin's family theme is: 'Everybody is as important as everybody else.' Along the lines of Reiss' concept of the family paradigm this leads to particular integration. Implying that the family believes that there is a different plan for each individual in this world that cannot be accessed by empathy. This explains why individualism is stressed. An individualism that is based on the following principles: 'You've got to act responsible and make your own choices.' And 'Even small children need to have their say on everything and their opinions should be respected.' This family theme is displayed in a constant dialogue between parents and children. A part of the family dynamic that was directly apparent from the beginning of data collection. Even though the children were very small they did not fear to speak out and they were constantly asked for their opinion by Paul and Christine. A very important part of this family theme is that every action undertaken by the children should come from an intrinsic motivation:

Paul: When it comes to household tasks, you've got to motivate them a bit, and then they will help you. But it's a difficult process, it's OK when you've only got one of them with you, then you can motivate them to do things together. Otherwise they just start to play. For example, Travis, if you don't do it together with him and just say we're going to clean-up, he directly goes on to something else and is playing again.

But then his sisters become agitated, and that creates a row. But we try to get it done in a subtle way. We try to wangle intrinsic motivation and capacities instead of imposing our will. But we are still debating about that. Sometimes I start thinking that the time I put in cleaning-up could be used for other things. But instead dad can go around the garden and collect toys, while you could say: 'They (*refers to the children*) can do it themselves.'

Furthermore, the family theme clarifies why Monica and Jennifer attend a Freinet school. The school operates on the same principles as the family. This is also apparent in the children's ICT use. They are free to work with media appliances. Furthermore, they are stimulated to find out for themselves what can be done with it:

Monica: When I like to make a phone call I ask my mother and then I've got to look up the number myself.

...

Monica: Once a year we go to the movies. Last year we went for my birthday, it was a party for me and my friends. We're also going to do that this year and then Jennifer and Travis will come along.

Interviewer: And who chooses the movie?

Monica: Well, Mum and Dad give us a selection we can choose from. Firstly, I say: 'I want to see that one and that one.' Then they say: 'You can choose from these.' And then I make my choice. Because some children aren't allowed to see some films because they aren't 12 years old.

However, the way in which the family theme is conceived, implies that you spend lots of time discussing things with your children or trying to get their co-operation in a playful way. This results in conflict situations between different subsystems and different individuals.

7.3. The Rees family.

7.3.1. Socio-demographic structure.

mother: Sara (°1964)

occupation: assistant in a butcher's shop

educational level: secondary education 2 (higher level)

net income per month: between 495,91 € and 743,86€

father: Jake (°1962)

occupation: teacher

educational level: higher education (>3 years)

net income per month: between 1239,77 € and 1487,73€

son: Jeffrey (°1989)

10 years old (at the beginning of data collection)

11 years old (by the end of data collection)

son: Kenneth (°1992)

7 years old (at the beginning of data collection)

8 years old (by the end of data collection)

The Rees family lives in a street nearby the slip road of the motorway where they have built a farm-style house. It is a very quiet street except for the regular noise of a train that runs at the back of their garden. At the beginning of data collection, Sara was working as an assistant in a butcher's shop. This meant that she had to work Saturdays. Jake is a teacher at a local primary school. Kenneth and Jeffrey go to the same school.

7.3.2. ICT density.

The cluster analysis identified the Rees family as a traditional family. They have a small amount of media appliances. Almost all of those are to be found in the living-room (table 7.3.1.). It boils down to basic equipment: a computer, a television, and a stereo. The computer cluster consists of a multimedia PC. The television cluster contains a colour TV with cable connection and a VCR. The main appliance in the audio cluster is the stereo. Jake connected the kitchen speakers to the stereo. As a result, downstairs the whole house is tuned into the same radio station or CD at the same time. In the Rees family the concept of the children's bedroom as 'a centre of multimedia activities' is non-existent. The only media appliance Jeffrey and Kenneth have in their bedroom is a radio alarm clock.

Table 7.3.1.: Frequencies and placing of the Rees family's media appliances at home (survey results)

media appliance	frequency	placing
connection for cable TV	1	living-room
stereo	1	living-room
radio alarm clock	2	parental bedroom, child's bedroom
cassette recorder	1	living-room
CD-ROM player	1	living-room
multimedia PC	1	living-room
colour TV	1	living-room
VCR	1	living-room
record player	1	living-room
radio	1	parental bedroom
CD player	1	living-room
telephone	1	living-room
handheld	3	

The Rees family's small amount of media appliances is not an indicator of scepticism towards media appliances. They do agree that they are not 'early adopters'. However, they do believe in the functionality of certain new media appliances:

Interviewer: Would you like to have an internet connection at home?

Jake: Yes, I think it's only a matter of time. But I'm not the first one to say: 'We always jump right on it.' We look around and search for the most advantageous provider. I think we'll have one in half a year or so.

Interviewer: Why did you purchase the computer?

Jake: I purchased our first computer around seven or eight years ago. It was a 386, for my schoolwork. But after a while, it was too slow. It was a real mess when we tried to install new software. Last year we bought ourselves a Pentium. It's a more powerful machine but meanwhile... But we aren't freaks. We don't need to have every novelty.

In the general social context the Rees family cannot be seen as 'innovator'. However, in their own family environment they were when they bought their first computer:

Jake: There weren't lots of colleagues that already had a computer when we bought ours.

Interviewer: So, you were one of the first to have one?

Jake: Yes.

Interviewer: And were there already computers at school?

Jake: No.

Eleven months after the first family interview the Rees family got connected to the internet. As such, they transformed into a multimedia family type.

7.3.3. A family in fear of physical compartmentalisation.

7.3.3.1. Internal relationships.

During the process of data collection it became clear that the different family members spend most of their spare time at home. As a result, family members indicate that they are high on family

cohesion. Jake even indicates that it is difficult to get away from the family. This is due to the fact that the family is connected inside the boundaries of: their home, their garden, and their street. In order to get a better insight in the Rees' family dynamic, a normal ESM week is presented (figure 7.3.1.). We must note that during this normal ESM week, Sara was at home all the time since she was unemployed at the time. However, during the deprivation period of the ESM she got another job in a factory nearby.

Figure 7.3.1.: A normal ESM week in the Rees family

* the whole family	□ Jake	⊕ Jeffrey
○ Sara	⊙ Kenneth	

<u>Wednesday</u>	06.49 PM	○ kitchen: sewing whilst singing	□⊙ car: taking Kenneth to training whilst talking to him	⊕ living-room: watching TV
	09.10	○ kitchen: sewing	□ living-room: preparing lessons whilst watching the soccer game on TV	⊙ no account
<u>Thursday</u>	10.24 AM	○ kitchen: dusting whilst eating	□ no account	⊙ no account
	04.28 PM	○ kitchen: cleaning the cooker hood whilst hearing Kenneth's lessons	□ garden: watering the flowers	⊙ living-room: doing homework and reading
	06.01	* kitchen: having dinner and listening to the radio news		
	07.12	○ kitchen: cleaning up fragments of glass and doing the dishes	□ no account	⊙ bathroom: washing myself
	08.36	○ living-room: watching TV	□⊕ cycling whilst talking to each other	⊙ no account
	09.33	○ kitchen: sifting Swedish herbs whilst cleaning up	□ living-room: preparing lessons whilst watching a soccer commentary on TV	⊙ bedroom: sleeping
<u>Friday</u>	04.51 PM	○ no account	□ no account	⊙⊕ living-room: watching TV
	06.43	○ upstairs: putting away the linen whilst getting ready to go shopping	□ chip shop: talking and ordering chips	⊙ chip shop: waiting
	08.09	○ Hobby-club: doing flower arrangements	□ at home: cleaning-up whilst listening to the radio news	⊙⊕ outside on the street: playing
	09.44	○ no account	□ living-room: doing school work whilst watching TV	⊙ bedroom: sleeping
				⊕ living-room: watching TV

<u>Saturday</u>	10.20 AM	O no account	□ table-tennis club: talking	⊙ no account	⊕ living-room: playing whilst listening to music
	11.48	O no account	□ kitchen: cooking whilst talking	⊙ ⊕ kitchen: eating whilst listening to music	
	05.23 PM	O kitchen: hemming curtains	□ no account	⊙ living-room: watching TV	⊕ no account
	06.52	O kitchen: searching the recipe for making soup whilst hemming the curtains	□ no account	⊙ living-room: watching TV	⊕ no account
	07.20	O kitchen: making soup	□ no account	⊙ bathroom: washing myself	⊕ no account
	08.19	O storage room: going into the cellar whilst listening which programme Kenneth is watching on TV	□ no account	⊙ living-room: watching TV	⊕ no account
	09.11	O kitchen: doing the dishes whilst giving Kenneth some soup	□ no account	⊙ no account	⊕ no account
	10.30	O living-room: watching TV whilst talking to Jake and Jeffrey who'd just entered the room	□ at home: putting Kenneth to bed whilst eating and talking	⊙ no account	⊕ at home: arriving from the table-tennis competition whilst eating
<u>Sunday</u>	11.14 AM	O kitchen: sewing whilst listening to the radio	□ living-room: doing school work whilst watching the Olympics on TV	⊙ living-room: watching the Olympics on TV	⊕ living-room: watching the Olympics on TV whilst listening to our bird singing
	12.16 PM	O kitchen: preparing dinner whilst getting the summer clothes out of the closets	□ living-room: doing school work and computer work	⊙ living-room: watching TV	⊕ living-room: watching TV whilst writing
	01.28		⊙ □ ⊙ living-room: watching the TV news		⊕ living-room: playing computer games whilst watching the TV news
	06.15	O bedrooms: gathering old clothes whilst cleaning up the wardrobes	□ kitchen: cooking dinner whilst listening to the radio	⊙ kitchen: getting ready for dinner	⊕ kitchen: getting ready for dinner whilst playing with my Lego
	07.09	O upstairs: still busy cleaning up the wardrobes	□ living-room: doing work for school whilst watching the TV news	⊙ ⊕ playroom: playing with Lego and talking	
	08.30	O storage room: sorting out the linen whilst cleaning-up, putting Kenneth to bed, and gathering pieces of material for a school assignment	□ no account	⊙ kitchen: getting ready for bed	⊕ living-room: watching TV whilst eating soup
	09.52	O living-room: sewing whilst watching TV	□ living-room: watching TV	⊙ ⊕ bedroom: sleeping	

<u>Monday</u>	09.30 AM	<input type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
		living-room: cleaning-up whilst hanging up the linen	no account	no account	no account
	03.33 PM	<input type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
		living-room: putting something away whilst polishing shoes	no account	no account	no account
	05.13	<input type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
		kitchen: preparing dinner whilst helping Kenneth with his homework	garden: mowing the lawn whilst talking to the neighbour	kitchen: getting ready to go playing	bedroom: studying whilst writing
	06.38	<input type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
		kitchen: doing the dishes whilst listening to the radio	at the table-tennis club: talking whilst lining up the team	no account	outside: playing on the street (skateboarding) whilst talking
	09.11	<input type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
		hallway: lighting some candles whilst talking a look on the street because there are noise-makers	no account	no account	living-room: watching TV
<u>Tuesday</u>	04.03 PM	<input type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
		living-room: browsing through a magazine whilst helping Kenneth with his homework	at school: cleaning-up	living-room: doing my homework (maths)	bedroom: studying whilst reading
	05.10	<input type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
		kitchen: working at the curtains	at school: in a meeting	outside: playing on the street	
	06.42	<input type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
		kitchen: eating whilst feeding the cat some leftovers	at home: cleaning-up whilst thinking	living-room: watching TV	bathroom: changing clothes
	08.55	<input type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
		Outside: putting out the garbage		bedroom: sleeping	living-room: watching TV whilst thinking
<u>Wednesday</u>	07.30 AM	<input type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
		kitchen: drinking coffee whilst making a sandwich for Jake	kitchen: having breakfast whilst listening to the radio news	no account	no account

In his individual questionnaire, Kenneth indicates that his mother does not have enough time for him. At that time Sara was working as a shop assistant and had to work Saturdays. This explains why Kenneth felt deprived of her attention. However, during Sara's unemployment they did not spend more time together. This is due to Sara's pre-occupation with household tasks as indicated by the normal ESM week. Moreover, Sara's territory seems to be the kitchen. During the normal ESM week, in 55 % of the accounts she reported to be in the kitchen. In 70 % of the accounts she was doing household chores. It is clear that family dynamic evolves around this traditional role-pattern. Sara even feels guilty when she asks the children to participate:

Interviewer: Do the boys help with household chores?

Sara: I've told them: 'This Easter holiday you're going to help more. Especially doing the dishes; everyone in his turn.' However, I would like to spare the youngest one a little because when Jeffrey was his age, well maybe he didn't have to help then either. But when the other one says: 'He doesn't have to do that!' It's difficult, of course. What should be done, and what shouldn't?

Interviewer: Do they have to clean up their own room?

Sara: No, from time to time, but most of the time it remains the way it was and then mum has to do it. Yesterday they were so bored, so I said to them: 'Clean up your desk then.' But then they say: 'I don't feel like it.' And then I go thinking: 'Leave them alone...'

In their individual questionnaire family members all report that there is no 'family time'. This is supported by the reports of the normal ESM week. On an average family evening: Sara is busy doing household tasks, Jake sits behind the computer doing work for school or he is at the table-tennis club, and Kenneth and Jeffrey are either playing or watching television. The only time that family members reported to be together in the same room doing the same thing, was on Thursday evening when they were having dinner in the kitchen. However, this does not imply that family members live side by side in mere physical togetherness. Kenneth and Jeffrey, for example, get along very well. They often play together. For example, on Sunday evening they are playing together in the playroom when Sara reported that she was going to get Kenneth for his bath. Jeffrey then reported to be thinking: 'Not now! We're just having great fun!' Although they report not having 'family time', they are connected by physical togetherness; a family feature that is highly valued since it is regarded as a guarantee for conversation. Hence, the placing of media appliances has to fit this framework:

Jake: We've placed the computer in the living-room. We did that on purpose. My work area is there so you aren't isolated. We've chosen to do it like that when we started off. So you can talk to each other. We're in contact with each other.

Sara: This isn't the case when you're sitting separately. That's why we've said it straight away: 'When we build a house, the living-room has to be big enough so that it can contain a desk.'

The excerpt clearly indicates that the family wants to avoid physical compartmentalisation. Hence, the lack of media appliances in the children's bedrooms. However, adjustments to spatial organisation force Jake and Sara to think about media appliances in the children's bedrooms:

Jake: I think – in the future – let's say seven or eight years from now, they'll probably have a computer in their bedroom. These are things that you've got to consider right now. In a short while we'll paper the rooms upstairs. So then you've got to ask yourself this question: 'Are they gonna get internet in their bedrooms or not?' Because, otherwise you'll already have to provide certain cables there.

Interviewer: So then they would have cable?

Jake: Yes, but not for television use. We're not going to install a television in their bedrooms. I think my wife wouldn't like that either.

Interviewer: And computer?

Jake: Yes, although then we have to keep an eye on them even more so because of the internet.

Apart from providing a guarantee for conversation, physical togetherness is also a tool used to control one another, a feature that also emerges from the individual questionnaire. Sara, Jake, and Jeffrey indicate that they have an authoritarian family style rather than a democratic one. In the Rees family, Jake is the authority. As Jake himself reports when making his family plan:

Jake: Inside the family, I think I stick out.

This is also reflected in the purchase of media appliances:

Interviewer: What was the last media appliance you purchased?

Sara: The computer.
 Jake: Last year.
 Interviewer: And how did you go about it? Did the children have their say in this decision?
 Sara: No, mostly it's Jake who decides. Because he's well informed about everything and I'm absolutely not. The children? Well, it's coming.
 Interviewer: Did they ask for a computer?
 Sara: Yes, Jeffrey often comes along when there's an open day at the computer store and then he sometimes says: 'That's nice.' Or 'We should have that.'

Even in the allocation of computer time Jake's work precedes everything:

Interviewer: Does it occur that you fight over the computer?
 Kenneth: Yes, sometimes.
 Sara: It happens but very seldom. Mostly, dad's work comes first.

Furthermore, Sara and Jake indicate that their family is conversation oriented. However, they do agree with the conformity orientation when it comes to parental power. They both feel that parents should be the boss and should be the ones that make all the important decisions. Jeffrey, on the other hand, does not find his family conversation oriented but all the more conformity oriented. In the case of the Rees family conformity goes hand in hand with Jake's authority. An authority that originates in the fact that Jake wants his children to be his likeness. He does not force them, but talks about stimulating them to do things in a certain way, an attitude that also emerges with regard to ICT use. Jake claims the expert role. However, this does not imply that he wants to curtail his children's ICT use. On the contrary, Jake uses his expert role to stimulate his children to use media appliances in 'a proper way'. The 'proper way' being 'Jake's way'. As illustrated by the following excerpt:

Interviewer: Are they (*refers to Kenneth and Jeffrey*) interested in music?
 Jake: Yes, Luckily it's coming. However, it has been very house and techno. I thought: 'We can't forbid it because that works the other way around.' But now he (*refers to Jeffrey*) starts to turn on Studio Brussel (*Jake is a Studio Brussel fan*) since he thinks: 'Well actually that's also nice.' I think that's a healthy development.

Furthermore, computer use is clearly curtailed by Jake's ideas about how the computer ought to be used. Jake's starting point is that you've got to follow a course before you can work on the computer. Therefore, he encourages Jeffrey to follow a computer course:

Jake: He does it in five or four steps. The first time it was 'Word' and then they made a presentation for the school paper. He's learning all sorts of techniques on the basis of typing. It's taught very well. There are only four pupils.

Jake then revels in the fact that his sons know how to handle certain software programmes:

Interviewer: So in a short while they (*refers to the children*) will really get into it (*refers to using the computer*)?
 Jake: Yes, and especially now with the computer course.
 Interviewer: Yes.

Jake: But I approve of those things, as long as they run programmes. Actually, I find it fantastic.

Interviewer: So, that's pretty extensive then?

Jake: No, that's alright, but children are so handy when it comes to that. When they know how to run one windows programme, they know them all. He (*refers to Jeffrey*) even made his own presentation on it.

However, this does not imply that the boys can get creative with the computer. They are not given the chance to discover themselves what certain programmes can do. Kenneth and Jeffrey do not mind and use the lines that are set out by the computer course. To them they are a safeguard. The same attitude became apparent when the internet was introduced in the family home. The children then asked for an internet introductory course. So Jake actively intervenes in the computer course programme and asks the teacher for an internet introductory course:

Kenneth: Dad just installed the internet. I'm going to follow a course about internet and then I can get on it.

...

Interviewer: (*to Kenneth*) So you also want to follow a computer course?

Kenneth: Well actually it's a bit for the internet.

Jake: He wants to know the internet. So I asked the teacher and he agreed to give a course in a few months.

Until the course has been taken the boys can only go on the internet under their father's guidance:

Jake: Jeffrey is already surfing regularly. He had to give a presentation at school, so he made it on the computer and used the internet to search for material. But he always has to be guided. I find that they have to get to know the basics.

Kenneth is especially keen to get on the internet since it supplements his computer game playing. He regards the internet as an ideal tool to find cheat codes for the computer games he is playing.

7.3.3.2. Relationships with the outside world.

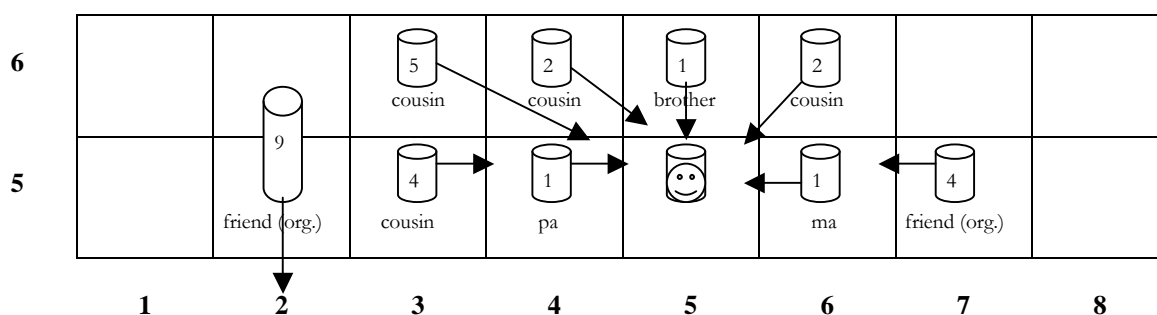
In their individual questionnaire, Jake, Sara, and Jeffrey indicate that their family is high on family sociability. In his individual questionnaire Kenneth indicates that the family is seldom visited by friends or family. High family sociability is therefore a matter of approaching the outside world on the family's own terms. Terms that are decided by Jake. He acts as a gateway between the outside world and family life. He is a youth trainer at a table-tennis club. Jeffrey and Kenneth are members of this club. When setting up her family list, Sara indicates that her friends are members of the table-tennis club. But Jake's dominance curtails external influence:

Jake: The children have already been on the internet under my guidance. I'm still searching myself. It's only been working for a few days, because something went wrong during the installation. I couldn't find out what it was. I have a friend in the table-tennis club that offered to help me, but I'd rather find it out myself. You'll never forget something you've found yourself. I'd put number 'zero' for an outside connection but of course I don't have one here. So a few days ago I realised that must be the problem, I just omitted it and it worked perfectly.

Since Jake orchestrates family members' relationships with the outside world, there is one thing that worries him. The fact that Kenneth and Jeffrey close themselves off from the outside world. During an ad hoc observation, Jake tells me that Jeffrey is afraid of social contact. An attitude that was very noticeable when I entered the family setting for the first time. Jeffrey was very shy and kept staring at the table when questions were asked. He hardly ever answered them. When he did answer, it was only to say yes or no. This fear of social contact also surfaces in the ESM (figure 7.3.1.). On Friday, Jake reports being at the chip shop talking and ordering chips while Kenneth was waiting with him. Jeffrey did go along but instead of being at the chip shop he remained seated in the car where he listened to music and looked around wondering whether the chips would be good or not. Since Jeffrey's behaviour worries Jake, he has started to create opportunities for Jeffrey to get in contact with the outside world. For example, at weekends, Jeffrey is obliged to get his father's newspaper. However, when Jeffrey does come into contact with outside world, he puts himself in a subordinate position. As illustrated by the following excerpt and by his family plan (figure 7.3.2.):

Interviewer: Why did you heighten this friend?
 Jeffrey: He talks a lot, he bosses me around.
 Interviewer: Do you find that annoying?
 Jeffrey: Yes.
 Interviewer: Does he know?
 Jeffrey: No.

Figure 7.3.2.: An excerpt of Jeffrey's family plan.



Jeffrey clearly has difficulties coming up for himself. The subordinate position annoys him but he does not inform his friend of this fact.

In his individual questionnaire Kenneth indicates that he finds it difficult to make friends. He also scores very low on the self-esteem scale. According to Jake this is due to a specific problem he suffers from:

Jake: Kenneth has got motorial problems. He's still following a therapy based on psychomotorial science. It's very strange. Formerly, he woke up in the morning and was in a very bad mood. He didn't feel good in his body. There was a knot somewhere. He's intelligent enough. Accidentally we've got talking to someone who uses a certain therapy he got from a

professor. It's in the neighbourhood. So I said: 'Let's go there and get him tested. Maybe he's a candidate for the therapy.' And indeed, he was. They treat him by constantly doing exercises with his body. As such, his body scheme is put into place and he has become a different child. He's very cheerful. It wasn't like that eighteen months ago. It's a real difference.

However, Kenneth himself indicates that he is only a little bit happy with the way he is. In fact, the boys have the same behavioural pattern as their mother. She hardly goes out and spends most of her time in household chores. This also becomes clear in their ICT use:

Interviewer: Do Jeffrey and Kenneth use the telephone?

Sara: No, absolutely not. Especially not Jeffrey, he doesn't even answer the phone when it rings. Kenneth does, mostly the phone only has to ring once with him. He's into that. But they don't phone themselves. He (*refers to Jeffrey*) will only do it when we tell him to phone his grandmother or so.

In this regard, the emphasis that is placed on physical togetherness is not really helping the boys. Sara, for example, is overprotective and always wants to keep an eye on her children:

Interviewer: The children often play on the street?

Sara: Yes, it's a very quiet street. But they do play in our garden also; they aren't always on the street. Most of the time on the street, or in our garden, but not at the other children's homes. But I like it like that, and then I can see what they're up to. The boy next door is really very rude; you've really got to keep an eye on him because he would cause others to have an accident.

Interviewer: He's older?

Sara: He's one year older than Jeffrey, but he doesn't control his own power. He's so wild, he doesn't realise what he's doing. That's dangerous. For example, he starts throwing sticks and stones. It's unbelievable. Then Jeffrey comes in crying, because he can't face up to that. So then I help him, actually I know that I'm not supposed to do that, because as such he doesn't learn to stand up for himself. But I pity him; you can't let him get beaten up, can you? Then Jake gets angry. He says: 'He has to manage on his own!' But well, what can you do, it isn't always that easy.

As a result, Jeffrey regards certain ICT as a way out of 'real' contact. He searches for a medium where he can control social interaction:

Interviewer: Do you find e-mail interesting?

Jeffrey: Yes, because then those friends don't have to come over anymore.

7.3.3.3. Family theme.

In their individual questionnaire family members report that they do not believe in an external locus of control. On the contrary, the Rees family wants to control the world itself. They position themselves along the lines of internal reference in Reiss' scheme of the family paradigm, whereby the family's experience is the reference point in relationships with the outside world. In the case of the Rees family this means that the family is used as a shield from the outside world. Their family theme is: 'Patience is a virtue!' Control is an externalisation of this family theme:

Jake: Everything has to be done in due time. It isn't such a problem financially speaking. But why do you always need to have everything straightaway? That's the question. That's how we see it. We both have a job, so it's not as if we can't afford it. But we try to get this message to our children: 'Everything doesn't have to be there straightaway, at the blink of an eye. That's what we try to teach them. They do understand. Children always come to you with lots of questions and dreams. We tell them: 'It doesn't work like that; you got to save up for it, to wait for it or long for it.'

As such, media appliances have a special meaning. They are seen as precious desirable goods. This leads to a very typical purchase behaviour whereby media appliances are bought as a gift on special occasions such as birthdays or Confirmations. For example, during data collection Jeffrey expressed his interest in having a music installation in his bedroom. Since he does not have a good installation in his bedroom he spends lots of time listening to the radio via his radio alarm clock. Jake and Sara agreed that he could have a music installation for his Confirmation. However, they made a deal stipulating that Jeffrey has to pay, in part, for the installation. As a result, during the entire data collection process Jeffrey mentions that he is saving up for a music installation.

7.4. Summary.

In Chapter seven the analysis of the three traditional families is presented. The results show that only one family remained traditional during the entire data collection. However, this status quo was only obtained due to the creation of a family of choice. Through this family of choice one of the family members had access to a multimedia environment. Furthermore, it provided this family member with an opportunity for peer bonding. This gave the other family members more time to relate to each other. As a result, the original family is prevented from disintegration.

The other two traditional families transformed themselves into multimedia families. The result of this transformation could not be investigated. However, family dynamics and especially the family theme proved to be a good indicator of how these families will incorporate new ICT into their everyday life. In conclusion, these transformations indicate that families cannot be regarded as static units but are, in their very nature, dynamic entities.

In the following chapter the analysis of the two intermediate families is presented. These are families that have more media appliances than the traditional ones. On the other hand, they have less new ICT than the multimedia family types.

8. Intermediate families.

8.1. The Dunstan family.

8.1.1. Socio-demographic structure.

mother: Nicole (°1959)

occupation: career interruption (nurse) (sick leave)

educational level: higher education (<4 years)

net income per month: between 991,82 € and 1239,77€

father: Robert (°1953)

occupation: bank manager (independent profession)

educational level: higher education (>3 years)

net income per month: between 3099,43 € and 37719,32 €

son: Thomas (°1984)

14 years old (at the beginning of data collection)

16 years old (by the end of data collection)

son: Nathan (°1988)

11 years old (at the beginning of data collection)

12 years old (by the end of data collection)

The Dunstan family lives in a very small village near the motorway. They've built a farm-style house on a road that is often used by cut-through traffic. At the start of data collection Nicole worked part-time as a nurse. However, one year later she fell into depression and decided to take a one year career interruption. Robert works as a bank manager in an adjacent town. He has to work on Saturday morning. In the evenings he often visits clients at their home. Thomas and Nathan go to school in an adjacent town.

8.1.2. ICT density.

On the one hand, the Dunstan family is a typical intermediate family. They do have newer media appliances such as a multimedia computer (table 8.1.1.) and they are very audio minded. On the other hand, they are atypical since they are not in the possession of a television set. The average intermediate family, meanwhile, is in the possession of more than one set.

In the Dunstan family home lay-out most of the ICT clusters are to be found in the living-room. They do not have a television cluster but they do have a computer cluster and an audio cluster in their living-room. The computer cluster consists of a multimedia PC and a modem. The audio

cluster consists of: a stereo, a radio, and a record player. These are also the most important ICT clusters.

Table 8.1.1.: Frequencies and placing of the Dunstan family's media appliances at home (survey results)

media appliance	frequency	placing
video camera	1	
stereo	2	living-room, study
cassette recorder	3	child's bedroom, bathroom, study
CD-ROM player	1	living-room
Answering machine	1	living-room
multimedia PC	1	living-room
record player	1	living-room
radio	4	living-room, child bedroom, bathroom, study
CD player	4	living-room, child bedroom, bathroom, study
walkman	1	
telephone	2	living-room, study
modem	1	living-room
fax	1	living-room

The audio cluster is important since the radio is almost always turned on. In most cases it serves as a background to other activities but there are occasions, such as the news flashes, when family members listen attentively. Music is an important factor in their lives. Nathan, for example, is very creative and composes his own songs. Furthermore, the computer is especially important to Nathan and Thomas. In the evening they often play computer games. The importance of this appliance also becomes clear through its place in the Dunstan's spatial organisation. It is placed as a focal point in the living-room since the sofas are put in a circle around it and pointing towards it - a spot in which other families prefer to place their television set. In addition, during the course of data collection they also won two GSM's. One was won by Thomas with a Coca-Cola action. The other one was won by Nicole by filling in a cross-word in a magazine.

Although The Dunstan family is an intermediate family they do have a modem. Furthermore, they have an internet provider and an internet installation disk. However, the internet installation does not seem to work. It is a situation that lasted during the entire data collection process. As a result, the Dunstan family got stuck in the transition towards a multimedia family.

8.1.3. A family in symbolic compartmentalisation.

The key factor in the Dunstan family is the 'no television' policy. The way in which they deal with and decided not to have a television is a perfect example of family dynamics. In the following key excerpt Nicole analyses how television still influences their lives although they do not have a set of their own:

Nicole: I used to be an intern and as a student I went to live in a student room, so during the week there was no TV. Only at weekends, so that was

really TV time. Zapping until there was nothing on anymore. And then we got married and went abroad for our jobs. Then we put the TV in a community place. I would not mind having a TV now, I would watch it, and it would take me even longer to get my ironing done, I guess. I think it would be difficult to get away from it, because I love to see all sorts of things. I love to watch a movie, a documentary, a talk show. There's always something that appeals to me. It offers relaxation, because nowadays we go to watch TV at the grandparents. There are times that my children pop the daily question: 'Are we going to grandma?' That's just to watch TV or a video. They know we're going once a week mostly on Wednesday and then they watch TV. Lately it's always a soccer game, so they watch it and afterwards I see that you're going on watching something else. You start zapping and then someone says: 'You've got to watch one programme at a time.' So I think it would become a source of discussion. Originally we asked for a cable connection, but we've never had one. At a certain moment we had this little TV set that we borrowed from grandma. We were both (*refers to herself and Robert*) very satisfied that there were only two channels on it, because they (*refers to Thomas and Nathan*) started to fight over those two, so that was a real annoyance. At a certain moment they (*refers to the cable company*) contacted us to ask whether or not the connection had to be kept. I had to decide it there and then... I've said no, it was a major decision because actually deep down I wanted to give into it myself. But still I think we're not missing all that much. There are so many other things that you can keep yourself occupied with. What TV is to one family, the computer is to another. We don't have an internet connection yet. I think it will be the same as a TV connection. I'm annoyed by the computer because when they're (*refers to Thomas and Nathan*) at it you don't have the possibility to talk to each other anymore. Each one is doing his own thing and that really disturbs me. I think that when you've got a TV, you're going to sit together and just sit there. When we designed the ideal home, I said 'a TV' but that remains a dream. Perhaps nowadays it has become a matter of principle: 'We don't have a TV!' since the other couple (*refers to a befriended couple*) doesn't have TV either. We support each other by saying: 'We don't have a TV but we're still informed about everything that's going on and we don't miss a thing.' When I see that Thomas reads the TV-guide, I don't think he's missing out on anything. They can talk about these programmes as well as other children at their school, that's not the problem. But at the moment, for example, now I don't feel so well due to these problems at work, now I would like to just sit in front of the TV and watch a stupid soap. That would be a good thing, just to be able to put everything aside, although this does not contribute to your cultural level.

In this one excerpt lies the essence of the implications of ICT for the Dunstan family as will be illustrated by the following analysis.

8.1.3.1. Internal relationships.

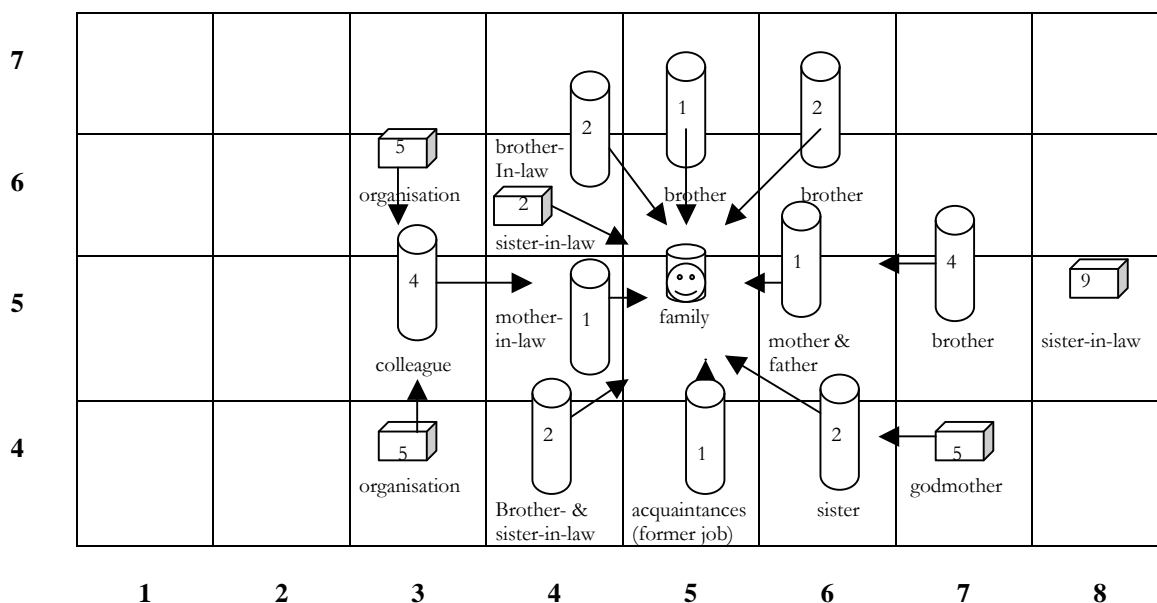
At the start of data collection Nicole was working part-time as a nurse. But one year later she got a depression and decided to take a one year career interruption:

Nicole: I didn't put my colleagues on the list of friends. Why? Because, actually I work in a team. I'm a nurse and the big change that occurred is that I'm on a one year career interruption that started the first of April. My candle has burned out and I felt I had to start something else, I mean,

start working at myself, to get some energy in order to get on with my job.

Nicole indicates that she wants to start working at herself since she ‘did not know who she was anymore’. This loss of identity is also apparent in her family plan. Nicole identifies herself completely with her family. There is no dyadic distance between her and the other family members. (figure 8.1.1.)

Figure 8.1.1.: An excerpt of Nicole’s family plan.



Nicole derived her identity and her self-esteem from the fact that people needed her. However, at this stage in her life, her colleagues and her children do not seem to need her anymore. At work she did not get the promotion she wanted and at home the children are old enough to look after themselves. This gives Nicole the feeling that she is not respected. Furthermore, she lost her goal in life:

Nicole: I worked on a ward with lots of terminal patients. I always devoted myself to get this ward working, but there wasn't much support from the hospital management. Well the main thing is that I lost my energy and love of work and that really gets me down. You get yourself into a deep hole; you end up there without even noticing. Anne (*her colleague and friend*) is someone that notices these things. You need somebody like her to sound the alarm and say to you: ‘What are you doing, is it worth working so intensively?’ I almost preferred my job over doing household chores like cleaning and ironing and now I must experience that that's not the right way, you can't keep it up because it gets you out of your balance. I applied for a job but I lost the job and then the head nurse's job became available but I didn't get it. However, on two earlier occasions I had replaced the head nurse when she was on maternity leave and that went very well. But in the end they chose someone else and I said to myself: ‘You've got to put up with it’, but apparently I could function as a second person but my inner self couldn't accept it. So it's really hard to continue working

the way I did before. I used to be the one that motivated others, brought about new initiatives, and stimulated the team to try new things with the patients and now I get the impression that I've been used especially since the new head nurse is pregnant and they would have asked me to replace her. I've cut the knot before they popped the question and I've said: 'I want to distance myself from my job for a while. So I asked to get a one year career interruption and tried to make clear that it couldn't go on like that any longer, 'I can't function the way you want me to'. I experience that I have to get control over my own life again. For the moment the children are at home, since this is a holiday, but I think I will get a set-back when I'm alone again. At the moment I'm painting, but at a certain moment I'm going to meet myself, that doesn't make me easy to get on with right now. Everybody knows that I'm at home and why. It's heart-warming to feel that there are people who will come over to talk when you're down. I'm not the kind of person that telephones someone to tell her story. Mostly I take everything as it comes. I'm a listener and maybe I've been one for too long, maybe I should have opened my mouth myself. But I can't do that over the phone, I've got to tell it to someone in person.

But while she took a career interruption to find herself, she soon fell into the role of a traditional housewife. Being occupied with the household all day and trying not to lose a grip on her children. Therefore, she structures their spare time activities. Since the boys love to play basketball with a couple of friends, Nicole founded a basketball club. This is the new goal in her life. Nicole handles the club's administration and negotiates with sponsors for T-shirts. However, Nicole's frenetic attempts to control her children's lives and to be needed by them causes conflict with Thomas and Nathan. As a result, they do not obey their mother. Nicole finds this annoying and goes on about every little detail. During the ESM it became clear that this often creates conflict. For example, at one time she does not ask them to do household chores since she asked it earlier on and it created a quarrel. As a result, Nicole is subordinate inside the family system and her attitude leads to the disrespect of the other family members. Robert, for example, often laughs at her suggestions. This was especially apparent during the FIG:

Nicole: Do we have a phone downstairs?

Robert: We've got a fixed telephone.

Nicole: And a portable one?

Robert: A portable one?! You would have a GSM inside or what?!

...

Nicole: *(to Thomas who's calculating)* Add the GSM.

Robert: Also a GSM. *(laughs mockingly)*

...

Robert: GSM. Well, we're going to put it in the study, aren't we or in the hallway.

Nathan: You're so selfish.

Furthermore, Robert patronises Nicole and answers questions for her:

Interviewer: So the main reason for not having a television set is that there is nothing on it, is that correct?

Robert: *(while Nicole is trying to say something)* Yes, that's...Yes, there's nothing on. *(to Nicole)* Tell it to us.

Nicole: I wouldn't mind having one. *(to Robert)* You know, don't you? I used to be an intern and at weekends it was like: 'Finally, I can watch TV.' So then I took the remote control and started zapping. So I won't mind if we have one. But I do realise that it would become very difficult to do anything else. For me, it would easily be addictive, sitting in front of it and not being able to get away. I know that perhaps I wouldn't be able to say: 'Turn it off. You're abusing it.' So then you make the choice not to have one but sometimes I think: 'Yes, it would be nice to sit at ease in a sofa and watch a movie.' But he *(refers to Robert)* says: 'You don't miss much.' And then I go thinking: 'It's true.' We regularly go to the movies and that fills the emptiness.

Another important factor determining internal relationships emerges in the previous excerpts: Robert's dominance. He 'rules' his family. In his individual questionnaire Robert scores high on all the items that are related to a democratic family type. However, the other family members do not see their family as being so democratic. They score high on items that are related to a laissez-faire family type and items that are related to an authoritarian family type. This is also reflected in the family's ICT use. What Robert sees as a democratic decision is not always appreciated as such by the other family members. A stunning example is their 'no television ownership'. Although at first it may seem that not having a television set is related to the noble principle of protecting family life, very soon it became clear that this idea originated in Robert's stubbornness, a situation that escalated into a life without a television set, as narrated by Robert himself. When the Dunstan family built their home they wanted to have a cable connection. So they contacted the cable company. When the people of the cable company arrived at their home they told Robert that he should drill the holes to provide for the cable himself. Robert found this really outrageous and said to them: 'Keep your television, I don't need it!' After a while, Robert ascribed certain principles to the fact that they did not have a television set:

Robert: If I was to say tomorrow: 'Shouldn't we purchase a television?', I'm sure that they would all jump at it *(laughs)*. But as long as I think that it isn't really necessary to have one, that there are no discussions about it at home, we just shut up about it. I think that TV is a waste of time, and I try to get this message through to my children. So then I ask them: 'What did you think about that? Do you think that's exciting?' We go to the movies instead or we do other things, we're not at home all that much. I suppose they appreciate it.

As such, it seems as if Robert wants to protect family life. Not having a television set means that you can do all sorts of other activities, together as a family. During the interviews family members often refer to playing board games or going to the movies. However, during the ESM there was not a single occasion on which the family members reported to be playing board games. Furthermore, for some family members going to the movies turns out to be more of an obligation than a joy:

Interviewer: Who chooses the movie you're going to see?

Robert: Everyone in his turn *(everybody laughs)* well, of course you've got to see whether or not it is interesting for the children as well. For example, this Sunday she *(refers to Nicole)* had to work and he *(refers*

to Nathan) had a birthday party to go to. So the two of us (*refers to himself and Thomas*) went to see 'Shakespeare in love'.

Thomas: Because I had to.

Robert: (*astonished*) Because you had to!?! I've never made it an obligation.

Thomas: Yes, you did.

In addition, the interviews and the ESM reports indicate that most of the family evenings are spent in physical togetherness, in the living-room, while family members undertake individual activities. Generally, Nicole is asleep on the sofa while Robert reads. The boys are reading comic books or playing, but their favourite pastime is playing computer games. This disturbs Nicole the most. She constantly bickers about the boy's computer game behaviour:

Interviewer: During holidays, do you often play computer games during the day?

Nicole: Yes! (*to Thomas*) Well?! Go on! Tell her!

Thomas: No, you tell her.

Nicole: No, you.

Thomas: I don't remember what I was going to say.

Nicole: If you would play computer games during the day at holidays.

Thomas: Sure! Why not? I've got to take advantage of it!

Nicole: (*annoyed*) You see! They wouldn't do anything else! It used to be that they played loud music and started playing something when they got up early at weekends or during holidays. Nowadays they first look through an ajar in their door so that we (*refers to Robert and herself*) won't hear a thing when they go downstairs. When they hear us, they quickly turn off the computer game. They think that we don't know that they've already been at it for an hour. It's always as quiet as a mouse.

Nathan: That's not true!

Nicole: That's not true?! Oh guys don't fool me! Sometimes they even get up earlier.

Nathan: That's not true!

Nicole: Yes, it is!!

While Nicole does not seem to be able to put her finger on what it is about computer game playing that annoys her, Robert makes an analysis that is as sharp as a razor:

Interviewer: Do you find it annoying when they are playing on the computer?

Nicole: Yes.

Robert: They close themselves off at that moment, socially speaking. The only contact they have at that moment is with the computer not with us and that really gets on my nerves. Especially when they put on a headset to hear the tunes that accompany the game.

As indicated by Robert, the main problem is that the computer game playing behaviour of the children creates a symbolic compartmentalisation. However, while Robert reports that it gets on his nerves, Nicole reports (during ESM) that she feels as if she is always the one that has to make remarks about it. She does not feel supported by Robert in her crusade against computer game playing. This lack of interest from Robert's part is due to the fact that the computer game behaviour is not under his nose since most of the time he is busy reading. As such, symbolic compartmentalisation is also created by Robert's reading behaviour. Nicole is at home during the day. As a result, she has already read most of the magazines and newspapers during the day.

Robert, on the other hand, is at work during the day and starts reading them in the evening. Nicole complains about his behaviour. However, Robert does not seem to mind:

- Interviewer: Do they complain when you are reading?
 Robert: No.
 Nicole: Sometimes.
 Robert: Yes, sometimes she says: 'For once, do something else!'
 Nicole: Yes.
 Robert: But she has learnt to put up with it. (*laughs*)
 Interviewer: Why do you complain?
 Nicole: Well it's not ... Well it creates silence when someone is reading but well I don't know.. I used to be a reader myself. But nowadays I just sit down in the sofa, close my eyes and sleep. An then they say to me: 'Go upstairs if you're tired!' But I've read through the magazines and the newspapers during the day.
 Robert: I don't have the time to do that! (*laughs*)
 Nicole: Yes, yes but hey, I'm not working fulltime so that makes a difference. I've got the afternoon to go through magazines and newspapers. So yes, reading is a sign of complete peace. It's just as if I'm jealous about it, the way he can do that in the evening.
 Robert: It's like this: I'm a typical early bird and she's a typical night owl.
 Nicole: Yes.
 Robert: So when I'm at home in the evening you don't have to ask me to do things. While in the evening she does some ironing and stuff. That's a bit of a contrast.

So while Nathan and Thomas escape by playing computer games or reading comic books, and Robert is reading his daily newspaper and magazines, Nicole is left without anything to do. A fate that manifests itself during the ESM when she often reports watching the other family members whilst they are reading or playing computer games:

- Nicole: Everybody thinks that the TV is inside that cupboard over there. So they say to you: 'You don't have a TV, so what do you do in the evening?' Robert reads a huge amount, in spite of the fact that he already has to work with his mind during the day. So that's also on your island, on your own, but I think that you're more occupied with each other when there's no TV. You keep an eye on each other. But nowadays because I don't feel that well, I often lay down on the sofa and fall a sleep. I'm so tired. I don't regard TV as something that causes people to talk to each other. Some say: 'They present certain topics on TV and then you can discuss them'. That's true but you can also do that without TV. For example, you can discuss an article in a newspaper, or discuss things you've read. I don't think you need a TV in order to keep up with the rest.

However, on several occasions during data collection, Nicole reports that she would like to have a television. She does not hope that it will bring family members together. On the contrary, she wants a television set in order to be included in the symbolic compartmentalisation. She wants to create an island of her own where she is doing something instead of doing nothing and watching the other family members relax.

In their individual interviews family members indicate that there is lots of verbal conflict in their family. Conflict over day-to-day problems and activities but also over media appliances. As

indicated earlier, the most important matter in dispute are the computer games that Nathan and Thomas play and more specifically the time they dedicate to those games. However, the lack of enthusiasm to connect to the internet is also a matter in dispute. The Dunstan family has a modem and the complete package to install the internet but they do not seem to get it working. Thomas and Nathan's underlying fear is that the internet connection is moving along the same lines as the cable connection:

Interviewer: *(to Thomas and Nathan)* Would you like to have a computer in your bedroom?

Nicole: Yes, they would. Yesterday Thomas said to me: 'You know what I want for my birthday, don't you?' He would like to have a scanner and another modem because there still isn't internet on our computer. We don't seem to get it installed.

Thomas: There isn't anything to consult when I need information.

Nicole: *(irritated)* So there's nothing to consult?! There aren't any books? No?!

Thomas: When I've got to look up something that happened recently...

Nicole: *(irritated)* Actuality?! Our dad *(refers to Robert)* doesn't buy magazines, does he?! Yesterday when you got home from school you told me that you had to find two questions to ask to a person from Congo who would come to visit your school. So what did I do? I took the magazines because there were some articles about Africa in them.

Thomas: I didn't have to pose them.

Nicole: *(more irritated)* You didn't have to pose them, correct, but I looked it up for you, I brought it on your lap and did you go through the trouble of reading them?

Thomas: *(irritated)* Yes!

Nicole: *(astonished)* Yes?! How?

Thomas: *(mockingly)* How? With my eyes!

Nicole: *(raises her voice)* Yes but not serious. You just said: 'I cannot get the questions from there.' You haven't been at it very intensively. So you think that you will find everything directly on the Internet, just like that, presented very neatly. That they are going to say to you which questions you've got to ask?!?

Interviewer: Do you intend to have an internet connection?

Nicole: We already promised it a year ago, but due to circumstances, I mean we said to him: 'If the grades on your exams are better we'll think about it.' So how did this develop? The holiday was coming closer and the office we consulted to install it for us, because we couldn't figure out how to, well this office was closed because they were on leave... Well there was always something that went wrong, because then they asked to bring the computer to them. According to them it worked so you could say that it should work at home as well but actually it doesn't, but I don't find it all that bad that it doesn't work.

Thomas: *(to the interviewer)* She thinks it's better than playing computer games, but she doesn't mind if it doesn't work...

Nicole: Yes, because I think that you will just go from playing computer games to surfing the internet and I don't think that will do. Because you don't have to pay to play those games, but you do have to pay for the internet *(laughs)*.

Thomas: *(irritated)* You just change ideas so quickly. You find it better if we're on the internet but...

Nicole: *(irritated)* Yes, but I see that you don't make an effort for it. I see it as a reward, but you don't make an effort to get your grades up even though it's just for a little while in order to get it. You promised it last time, but if I see that afterwards those grades go down I just think to myself: 'Well, does it matter anyway?!' Because then you go to sit in

front of it instead of in front of your school-books and that isn't allowed either.

Interviewer: Nathan would you like to have an internet connection?

Nathan: Yes, because now I have to go to the library to get on it.

Nicole: (*irritated*) And how often did you go to the library to look up something?!

Thomas: Five times. Five times a fifteen kilometres drive.

Nathan: Yes!

Thomas: Double trip! So that's ten times!

Interviewer: So there you can get onto the internet?

Thomas: Yes, with some luck you only have to wait an hour.

Nicole: (*irritated*) Oh yes?! And did somebody come after you so that you had to stop?

Thomas: Yes.

Nicole: (*astonished*) Yes? That's not what you've told me the other day.

Thomas: I don't tell you everything.

The excerpt clearly indicates that another aspect of this verbal conflict over media appliances lies in Nicole's frustration over the fact that she gets so little respect. She does something for her children but they do not appreciate it. Since Nicole is constantly telling them what to do and Robert is very dominant, Nathan and Thomas are very shy. Nathan, especially, hardly says anything during the family interview. Furthermore, during the individual interview it seems as if I cannot get real contact with him. He creates his own fantasy games, talks to himself all the time, and is very schematic and organised. He uses the computer to make plans and schemes for everything. As a result, the only part of data collection that did appeal to him was the FIG. Furthermore, Robert's dominance and Nicole's control over his life made Thomas an insecure teenager.

8.1.3.2. Relationships with the outside world.

In their relationships with the outside world Robert and Nicole present themselves as 'organisers'. They structure every activity. Even spontaneous activities are moulded into a specific structure. For example, Nicole organised activities on the work floor. However, when she left her job she searched for another activity to organise. So when she saw that her children loved to play basketball with a small group of friends, she immediately stepped up to mould this activity in a specific structure by founding a basketball club. Robert, for his part, organises a biological food supply team. It is a group of people that want to eat biological food. Together they purchase biological products at a lower rate. These products are kept in a warehouse. Robert does the administration for this group. This activity also helps the Dunstan family to create the image that 'they are not like any other family'. An image that is also cultivated by not having a television set.

According to Robert not having a television does not hamper social contact. However, he does acknowledge that television programmes are an important topic in day-to-day conversation with other people. On the other hand, claiming that the episodes of series can easily be followed when

people talk about them. He gets his information about the series from conversations with colleagues, friends, and extended family. Afterwards, he uses this information in other informal talks as if he has seen the programme himself. However, the 'no television' policy is merely a facade since two and sometimes even three times a week the Dunstan family visits their grandmother in order to watch television:

Nicole: They ask to go to their grandmother because she lives nearby. The question is posed on a daily basis: 'Aren't we going to grandma today?'

Nathan: But it's also to play outside.

Nicole: Also to play outside but there they have the chance to watch television. So the TV guide is skimmed in advance to be certain about what they can watch.

Robert: So they call their grandmother and say to her: 'At that time, that channel, tape it!'

As such, a visit to grandmother is not an end in itself but has become a means to an end. Robert and the boys realise that they need to visit her in order to be able to watch television. Nathan may indicate that they also play outside at grandmas but the ESM clearly indicates that the visits to grandma are only made in order to watch television. Never did the children report that they were playing outside or doing something else besides watching television. Furthermore, The ESM reports show that these twice-weekly visits to watch television create quarrels between Nicole and the other family members, reported as follows by the different family members in their ESM booklets. It is a Saturday evening (20.23 P.M.) and the Dunstan family is having dinner in a pizza place. While they are eating they are talking to each other about whether or not they will be going to grandma to watch 'Het Peulengaleis' (*an ironic TV show*). Nicole wants to stay at home in order to clean the kitchen but the others want to go and watch television. They were just having coffee when the decision was made: They were going to go to grandmas to watch the programme. While Nathan thought: 'Yes! We're going to grandma!', Nicole was thinking: 'OK, I'll let them go because then I can clean the kitchen.' However, two hours later (22.33 P.M.) it became clear that the others had pressed Nicole to come along. They made a deal that Nicole could clean the kitchen first. However, the schedule became very tight. Nathan does not seem to bother about that. He is taking a piss in the loo whilst singing and thinking: 'We're going to watch 'Het Peulengaleis'!' Robert and Thomas, on the other hand, are getting very nervous because Nicole has not finished cleaning the kitchen yet. They are all ready and waiting for her to finish up. Robert is pacing up and down in the living-room whilst thinking: 'How long will it take for her to finish cleaning!' At the same time, Thomas is pacing nervously up and down the hallway, thinking: 'Speed up mum!' This agitates Nicole who is thinking: 'I know it's already late! I know that I'm at home the whole week and I have nothing else to do than clean! No, I'm not deliberately holding you up so that you'll miss the TV-show! Yes, I will fill in my booklet even though you're interrupting me again

POINT!' A true indication of the importance attached to 'watching television at grandmas and the disrespect for Nicole.

One week later, again it's Saturday evening (22.50 P.M.). This time Nicole decided to make a firm stand. She reports that she did not want to go to grandma with Robert and the children to watch 'Het Peulengaleis'. This made Robert angry. He tried to win her over by saying that grandma is not even at home (*she runs a pub at weekends*). However, Nicole argues that she does not want to do something she does not enjoy. She does not find the TV programme amusing. In addition she reports: 'I'm going to do some ironing.' These reports clearly illustrate the fact that the visits to grandma are actually visits to the television set. The family even goes there when grandma is not at home.

8.1.3.3. Family theme.

In their individual questionnaires all family members indicate that their life is not determined by an external locus of control. In Reiss' scheme it would seem that they start from an internal reference point, whereby they regard their family and family experiences as the central orienting point. This belief is so strong that they do everything to promote a coherent family image to the outside world. A family image that is based on a family theme of political correctness, as even becomes clear in Nathan's ESM reports: One day when he is sitting in the car he is thinking about how bad it is for the environment that people take their car just to go to the baker's around the corner. Furthermore, the family eats biological food. In addition, in their individual questionnaire they all report that feelings are not shared with the other family members or with the outside world. For example, when Nicole has a meeting with the other members of committee of the Basketball club she reports in her ESM booklet that she does not agree with the president of the club. Since Nicole founded the club she has her own vision of how the club should evolve. She feels that the president wants to push this evolution and that this will be at the cost of the club's quality. She's very angry about that and reports having aggressive thoughts. However, she listens quietly and when it is her turn to speak she does not even react when she suspects that the president is not listening to her. The whole of family dynamics is aimed at preserving the family theme, although for some family members the political correctness has major setbacks. In Nicole's case the family theme bounded her to a role of traditional housewife and do-gooder:

Interviewer: And who is in charge of the household tasks like cleaning and ironing?

Robert: Nicole of course (laughs).

Interviewer: Of course?

Robert: Cleaning and ironing is her job. But maybe Nathan told you about his arrangement with her?

Interviewer: No

Robert: Well this Easter Holiday, he made a contract on the computer. In this contract he stipulates that he will do the easy household jobs at 25

Eurocent per hour. But he also has this clause that says: 'I quit when I want to.' So it isn't an obligation... But sometimes on a Sunday ironing some handkerchiefs, things like that. But otherwise, ironing is her (*refers to Nicole*) domain. But sometimes I cook, when she comes home from work in the evening, I often say: 'I'll fix us something quick, what do we have?' I like to do that.

The excerpt clearly indicates that although Nicole is already on her sick leave Robert does not say a word about it and even forgets that his wife is not working anymore. Since, they are so politically correct the other family members do not talk about Nicole's depression. Striking is the fact that, while Nicole opened up to me and told me about her feelings, to the other family members it seemed as if Nicole's illness does not exist. They do not talk about it in their individual interviews. They do not even give a clue. During the FIG and the last family interview after the ESM not a word was said about it. The family (except for Nicole herself) seems to be in denial.

In addition, for the Dunstan family the political correctness is a manifestation of their feeling of distinctiveness. As such, they revel in the fact that they are regarded as 'special' since they do not have a television set. A policy they explain as a safeguard of family life. As a result, not having a certain appliance has become a part of their image. Therefore, it has become a matter of principle. Since a befriended couple also does not have a television set their image is becoming so important that they do not want to be the first to give into the temptation of having one. However, without a loss of image they can watch television at their grandmother's home.

8.2. The Irving family.

8.2.1. Socio-demographic structure.

mother: Kelly (°1955)

occupation: nurse (half-time; night duty)

educational level: higher education (<4years)

net income per month: between 743,86 € and 991, 82€

father: Garret (°1955)

occupation: assistant stationmaster

educational level: secondary education 2 (higher level)

net income per month: between 1735,68 € and 1983,63€

daughter: Caitlin (°1984)

14 years old (at the beginning of data collection)

16 years old (by the end of data collection)

daughter: Laura (°1986)

12 years old (at the beginning of data collection)

14 years old (by the end of data collection)

son: Luke (°1990)

8 years old (at the beginning of data collection)

10 years old (by the end of data collection)

Kelly works part-time as a nurse. She works on night-duty from 10 P.M. until 7 A.M. Furthermore, her work week alternates with a non-working week. In addition, she has to work one weekend per month. Garret works fulltime as a station master and alternates normal work weeks with night-duty. Caitlin and Laura go to school in the city centre. They go by bike. Luke goes to school nearby. The Irving family lives in a residential area of a major Belgian city. It is a neighbourhood where all the houses are newly build. They live in a detached house with a railway running at the back of their garden. The quarter is very peaceful. Hardly a car comes by. However, it is troubled by burglaries.

8.2.2. ICT density.

The Irving family is a typical intermediate family. They are very audio minded. The main audio cluster is situated in the living-room (table 8.2.1.). It is a stereo consisting of: a CD-player, a radio, and a cassette recorder. Furthermore, the children all have a radio/cassette player in their bedroom which forms secondary audio clusters. These clusters are mostly used by Laura and Caitlin. In addition, the children are in the possession of a walkman.

Table 8.2.1.: Frequencies and placing of the Irving family's media appliances at home (survey results)

media appliance	frequency	placing
connection for cable TV	1	living-room
stereo	1	living-room
radio alarm clock	3	parental bedroom, child's bedroom (2)
cassette recorder	4	living-room, child's bedroom (3)
CD-ROM player	1	living-room
multimedia PC	1	living-room
colour TV	1	living-room
record player	1	living-room
radio	4	living-room, child's bedroom (3)
CD player	1	living-room
walkman	3	
telephone	2	kitchen, parental bedroom
modem	1	living-room

The television cluster is to be found in the living-room. It consists of a colour television with a cable connection. The Irving family does not have a VCR. The computer cluster consists of a multimedia PC with CD-ROM player and a modem. It is placed in the living-room.

At the start of data collection the Irving family was in the transition to a multimedia family type since they had a modem and already tried to install internet. However, the installation did not succeed. By the end of data collection the installation did succeed and the transition was completed. They had become a multimedia family. Furthermore, they had purchased two GSMs by the end of data collection. One of these was purchased for security reasons and remained at the house. The other one was purchased for Caitlin.

8.2.3. A family in social interaction.

8.2.3.1. Internal relationships.

In their individual questionnaire all family members reported that their family is high on expressiveness. A finding that is supported by the ESM reports. The different family members often report that they are talking to each other. Furthermore, in their individual questionnaire, all family members report that their family is conversation oriented. However, the children also indicate that they find it important that the parents are the boss. This does not imply that their parents have absolute authority. On the contrary, the Irving family is the prototype of a democratic family where all decisions are taken after considering every family member's opinion. In the Irving family, the combination of a democratic family communication pattern and high expressiveness leads to mutual respect. This made the FIG into a real game where all the family members were equally enthusiastically involved:

Luke: (*points to his bedroom*) Here, a swimming pool with chlorine in it, in my bedroom!

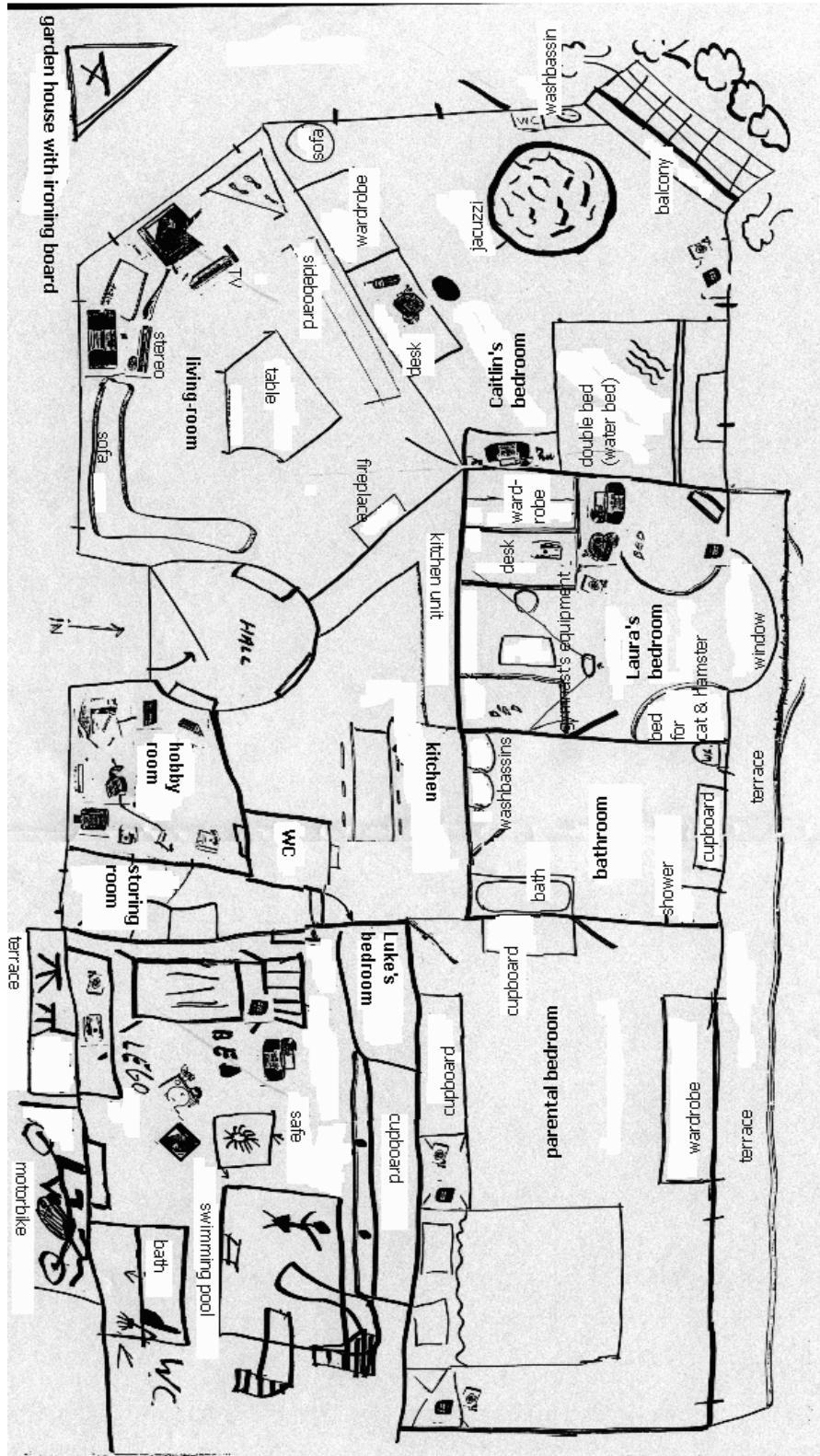
Kelly: Good that it's on the ground floor.

Interviewer: Is that a diving tower?

Luke: Yes, of course!
 Garret: If you dream you've got to go all the way!

As a result, the Griffin's ideal home is the most inspirational of the ten families (figure 8.2.1.).

Figure 8.2.1.: The Irving's ideal home design.



As apparent during the FIG, and typical of the Irving family, in some cases the children are even regarded as the authorities:

Luke: (*points at the house*) I would make it a bit round over here.
 Kelly: (*to Luke*) A little bit round like this?
 Luke: Yes.
 Kelly: And then? Like this (*draws an imaginary line*)?
 Laura: No.
 Luke: Like that (*draws an imaginary line*), (*to Laura*) don't you think?
 Caitlin: A nice line.
 Laura: (*to Kelly*) Just make it a little bit larger.
 Kelly: Yes.

This democratic view of authority is also reflected in the Irving's ICT use. Very special in this respect is the case of the multimedia PC. It was purchased for educational purposes and intended for Laura and Caitlin. However, they are not eager to work on it. This is a big disappointment to Garret since he finds it important that all his children can handle a PC. However, Caitlin and Laura argue that they do not have the time to work on the PC. In the evening they are busy doing their homework. Although Garret is disappointed that the girls do not use the PC, he does not use it himself. He only uses one at work. Furthermore, Kelly is a complete computer illiterate:

Interviewer: (*to Kelly*) Do you use the computer?
 Kelly: I don't know the first thing about it.
 (*Caitlin, Laura, and Luke are laughing out loud*)
 Kelly: You see, I don't have the time.
 Luke: She only knows how to get it started. (*laughs*)
 Kelly: It doesn't interest me.

The excerpt indicates that Kelly uses 'a lack of time' as an argument to mask her computer illiteracy. Based on the previous description it would seem as if the multimedia PC was a useless investment. However, from the start of data collection it was crystal clear that Luke is the one that uses the PC the most. For example, when we entered the family home the first time he was busy at the computer. During the following family interview another remarkable finding emerged. In addition to being the main user, and a very remarkable one for his age, Luke had placed himself into the expert role when it comes to the use of software applications:

Interviewer: Who uses the computer?
 (*Luke laughs*)
 (*Caitlin and Laura point in Luke's direction*)
 Interviewer: And why do you use the computer, Luke?
 Caitlin: To play computer games.
 Luke: No, not always to play games.
 Interviewer: So what do you do then?
 Luke: Well...
 Kelly: (*to Luke*) Go ahead tell her.
 Luke: To make stories.
 Kelly: (*completely into it*) Yes!
 Garret: Yes!
 Interviewer: You write your own stories?
 Kelly: And drawing, and what else?
 Luke: Scunny.
 Laura: But that's a game.

Luke: Ops, sorry.
 Kelly: The medical encyclopaedia.
 Luke: Yes.
 Interviewer: And where did you learn all this stuff?
 Luke: Well, I guess I've learned it on my own. (*laughs*)
 Kelly: He's very handy with that. He also uses Encarta. He's very eager to learn.
 Luckily, he doesn't use it just to play games.
 ...
 Garret: Luke is used to getting questions such as: 'Luke how do you start this
 up?' or 'Luke how do we close this programme?'

Furthermore, during the FIG Luke even asked for specifications of certain hardware that was on the price list:

Kelly: There is also a printer on the list.
 Garret: That's 6000 BEF (*more or less 149 Euro*). Add him too.
 Laura: Yes?
 Kelly: Yes, so 6000 BEF.
 Garret: Yes, 6000 BEF.
 Luke: (*to the interviewer*) It's a colour printer, isn't it?
 Interviewer: Yes, it's a colour printer.
 Luke: Well, then it's OK because otherwise I didn't want to have it.

Since Luke is practically the only one that uses the multimedia PC, it is an appliance that is hardly integrated into family life. Although it is located in the living-room, it has not yet reached its final destination or its full potential in the Irving family. The hardware is still developing as well as the meaning ascribed to the appliance. This observation is supported during the FIG. While in real life Garret would like the children to use the computer in an educational manner, in the ideal home design the computer is put into the hobby room for relaxation. As a result, it is still not clear what the implications of the multimedia PC will be for the Irving's family life. This is in contrast to the audio appliances, such as the stereo. In the Irving family, music is the background against which everyday life unfolds:

Interviewer: Which channel do you listen to?
 Garret: My channel is 'Studio Brussel' (*a channel that plays alternative music*), but it's a tricky matter.
 Interviewer: (*laughs*) You're not allowed to listen to it?
 Garret: When I go outside, they tune into 'Radio Donna' (*A radio station that targets at a young audience by playing popular music. For example: Britney Spears, The Backstreet Boys, Destiny's Child*). When I arrive back here and nobody is around I put 'Studio Brussel' back on. So several times a day it changes.
 Interviewer: And it's always on?
 Garret: It is when I'm here.
 Interviewer: And do you also consciously listen to it?
 Garret: It happens; there are certain programmes that I don't want to miss. So I turn the set on at the right time, but I'm not going to stay home for it. When I'm at home and I've got the time I will turn it on to listen to a certain programme.
 Interviewer: Which programmes?
 Garret: Oh, there aren't many. 'Kamagurka' (*a totally weird humoristic programme*) on Sunday and the alternative charts... I can't remember the name. It's a chart with the less commercial music. I also listen to the news flashes, several times a day. I put it on around 1 P.M. and 5 P.M. just to hear the news. Kelly isn't going to turn on the radio that

much to listen to the news, the children either. They need music. They often turn on the music because it has to be on. I doubt if they ever listen to it. They turn it on and then they're gone, outside or upstairs. When I leave I'll turn it off, but they don't. But I think that it's the media appliance that's used the most of all. And, well, the television. In the evening from a certain time on, the television is turned on.

The excerpt clearly indicates that music has become an integral part of family dynamics. If the music is not turned on, there is something missing. Therefore, the first one home puts it on. As such, turning on the radio has become a family routine and, although channels are switched the radio stays switched on. As a result, music is a constant presence in the family home, almost like an additional family member: You do not always listen to him/her or play with him/her but you miss him/her when he/she is not around.

Furthermore, at the end of the excerpt Garret points out that the television is also a popular media appliance. However, its popularity varies:

Kelly: Caitlin and Luke could watch a lot of television, Laura less. But it's restricted. We try to restrict it. Of course Caitlin and Laura watch other programmes than Luke. In summertime he plays outside. In wintertime he's allowed to watch television from 5 P.M. till 6 P.M. in order to watch certain cartoons. Then Caitlin and Laura take over and watch 'Seventh Heaven' before the news starts. It's a programme for young people. Caitlin always accompanies us to watch the eight o' clock news. Sometimes we've got to stimulate Laura, well, from time to time she joins in but afterwards...Laura doesn't watch a lot of television, sometimes just half an hour, a programme for young people or MTV. Caitlin would watch until 10 P.M. It's not often that she says: 'I'm going to sleep' or 'I'm going upstairs to my room', most of the time she's watching. But not Luke, he would like to but he's not allowed. He does watch it in the morning, when I say: 'You're up so early!' So then I think he watches television from 7 A.M. till 9 A.M. But actually that's an exception, only at holidays. He doesn't do it during a normal week.

Since the children mostly watch television together, conflicts occur. Caitlin and Laura agree. Luke, however, does not agree with his sisters' choices. This creates quarrels, especially, between Caitlin and Luke. However, Caitlin always has the upper hand since she cunningly controls the remote control:

Caitlin: Laura, Luke, and myself watch television together and most of the time we agree. However, sometimes it can be like: 'Give the remote to me; you've already had it the whole time.' Or I hide the remote under my sweater and when they ask: 'Who's got the remote?' I answer: 'I don't.' or, when you go to the toilet you just take it with you, so then the others can't change the channel, well, sometimes it gets really outrageous.

Caitlin's behaviour drives Luke mad. Laura, on the other hand, does not mind. In her ESM reports she indicates that she retreats and plays with her pet (a cat), or reads a book, or she goes upstairs to listen to her music when other family members are watching a programme she does not like. Kelly

and Garret's television behaviour does not interfere with their children's. They only watch the TV news. Sometimes they watch a programme that starts after the children have gone to bed. In the evening, they spend most of their spare time reading magazines or books.

To the Irving family the ESM turned out to be a daring experiment. They were the only family in our sample that decided not to use the television for two weeks. The day after this period started Caitlin already reported that she was going mad without a television. The ESM indicates that she turned to reading *HUMO (a magazine)* and listening to music in order to fill her spare time. However, she often felt really bored:

Interviewer: What did you miss about watching television?

Caitlin: Everything!! Being able to just sit there not doing anything else.

Kelly: But well, that's just because you didn't take the initiative to do something else.

When interviewed after the ESM, the other family members said that they did not find it all that difficult to live without a television. Kelly, Garret, and Laura already did not watch it that much. They substituted TV time by expanding the activities they normally undertake in the evening. Laura played with her cat more, read more, and listened more to the radio. Kelly and Garret spend more time reading and listening to the radio. The latter even had a pleasant surprise discovering 'Radio 1' (a channel with lots of news and information programmes):

Interviewer: Was it hard to be without a TV for two weeks?

Laura: No!

Garret: No, absolutely not.

Laura: I've found it nice to do something like that. Well, we've read much more.

Kelly: Very much more!!

Laura: And we've watched the radio.

Kelly: Watched?! You mean listened! And it was so peaceful in the evening. Because, normally you're inclined to, well, you want to get the eight o'clock news...

Garret: So you clear the table quickly. And now we took our time to eat and to clear the table.

Kelly: You don't have the urge to say: 'I would like to see that around 9.30 P.M.'

Garret: The only thing I've missed is the election show.

Kelly: Yes. Although we followed it on the radio, but that isn't the same, is it?

Garret: We discovered Radio 1.

Kelly: Yes!

Garret: They have an extended news bulletin and 'Actueel' (*a news programme with background information and political analysis*)

As for Luke, he was even in favour of adding another week without television. Since the weather was nice, he spent most of his spare time playing outside.

8.2.3.2. Relationships with the outside world.

The Irving family is well embedded in a large network of family and friends. The ESM indicates that Kelly and Garret often entertain friends at their home and often go to parties. The children go

on Holiday camps and visit their friends or have their friends come over to play with them. Here the quarter plays an important role:

Garret: Well it depends on the weather. Since we moved here, the TV has become even less important. From the moment that the weather is getting better, the TV set is turned off. In the evening, when the weather is fine, the kids are outside.

Since there is hardly a car that drives by, the children are allowed to play on the street. This setting creates an open boundary towards the outside world and makes the neighbourhood a real community. However, one appliance does not fit this observation: the intercom. Due to external influences the Irving family was forced to think about their boundary management. As noted previously, they live in a neighbourhood with a high burglary rate. As a result, they decided to install an intercom. The children are taught to answer the intercom before opening the door. As such, it is a media appliance that creates a boundary around family life. Furthermore, they installed an alarm system which forced them to purchase a GSM:

Kelly: Last year we purchased a GSM, because on Tuesday and Thursday, for a total of three times per month, we both have night-duty at the same time. Then Caitlin and Laura stay home alone. Luke always sleeps over somewhere else, mostly with grandma because she lives near the school. We've got an alarm installation; the neighbours are always alerted when something goes wrong. It works as follows: If the alarm goes off, you can't use the telephone, because the line has to be open in order for someone to contact you. So that's three minutes that you can't phone yourself. So we found this, well, you never know. The telephone is in our bedroom and now there's a GSM in Caitlin's bedroom. So, when something goes wrong, she can immediately contact the neighbours or us. You're never absolutely certain. It's so hard to leave them alone three times per month. I'm always happy when I get back home. But they are both doing very well.

However, the boundary that is created by these precautions is not a rigid one. It provides the family with a sense of security that allows them to be more open to the outside world.

8.1.3.3. Family theme.

In their individual questionnaires all family members indicated that their family life is not controlled by an external locus of control. They take their own family as a reference point for the outside world. In the Irving family's case this leads them to lead life on the bright side. Their family theme is: 'Be optimistic.' As a result, daily life is drenched in humour. Quarrels are directly undermined by a joke, an attitude that became especially apparent during ad hoc observations when family members started joking around. For example, at one time Kelly wanted to offer me a biscuit. She went to the kitchen cupboard and came back with a box of biscuits. However, it turned out to be empty because one of the children had been eating them secretly. Instead of making an argument all family members started laughing. Furthermore, they went on talking about the time that Kelly tried to fool the kids by buying biscuits with a flavour they did not like.

Another example occurred during the family interview. Kelly started talking about the sharing of household tasks. Luke then states how he solves this problem:

Luke: Most of the time I have to help but mum helps me. *(smiles)* So then I go to the toilet and it can take an hour before I return. By that time my room is cleaned *(everybody laughs)*.

ICT use is invaded by the same sense of humour. The remote control is taken to the toilet or hidden under sweaters. Luke jokes around about the computer skills of the other family members while Laura jokes around about Caitlin's GSM use.

8.3. Summary.

Chapter eight presented the discussion of two intermediate families. During data collection one of these transformed into a multimedia family. The other one remained intermediate although the technical conditions to become a multimedia family were present. In this family, the father's authority hampers ICT development.

Furthermore, the analysis of the two intermediate families indicate that families ascribe different meanings to media appliances. For example, a radio can be like an additional family member to one family while in the other family it is functional because it provides information.

In chapter nine the multimedia families are discussed. These are families that have a high ICT density. Furthermore, they all had an internet connection at the start of data collection.

9. Multimedia families.

9.1. The Collins family .

9.1.1. Socio-demographic structure.

mother: Rebecca (°1956)

occupation: head of two day-care centres (independent profession)

educational level: vocational training for 12 to 16 year-olds

net income (monthly): between € 743,68 and € 91,57

father: Andrew (°1952)

occupation: cold-storage engineer

educational level: vocational training for 16 to 18 year-olds

net income (monthly): between € 1239,77 and € 148,73

son: Matthew (°1984)

15 years old (at the beginning of data collection)

17 years old (by the end of data collection)

daughter: Lisa (°1988)

10 years old (at the beginning of data collection)

12 years old (by the end of data collection)

The Collins live in a large town house in the centre of a major Flemish city. Their house is very well maintained and renovated as are the other houses in their street. They live in a city-area with lots of immigrants (mainly from the Middle-East). Matthew and Lisa attend school in the city-centre. Rebecca runs a day-care centre in the city-centre and one in an adjacent town. Andrew works at the docks and is the handyman of the day-care centres..

9.1.2. ICT density.

The Collins family is well equipped with regard to new ICT (see table 9.1.1.). They have two multimedia PC's, a modem, and an internet connection. Furthermore, they are in possession of three GSM's (mother, father, and Matthew). The main television cluster is situated in the living-room as well as: the main computer cluster, the main telephony cluster, and the main audio cluster. The colour TV is accompanied by a connection for cable TV and a VCR. One of the multimedia PC's consists of a modem and an internet connection. The telephone is accompanied by an answering machine and a fax machine. The audio cluster consists of a stereo, a CD-player, and a radio. The music in the other rooms is regulated from this main audio cluster since Andrew installed speakers in the other rooms that are linked to the main audio cluster. A secondary

television cluster is situated in Matthew's bedroom, where a game console is connected to a colour TV. Furthermore, his bedroom is equipped with a stereo and a very basic computer. The parental bedroom is equipped with a telephone and a colour TV.

Table 9.1.1.: Frequencies and placing of the Collins family's media appliances at home (survey results)¹

media appliance	frequency	placing
connection for cable TV	1	living-room
video camera	1	
stereo	2	living-room, Matthew's bedroom
radio alarm clock	2	bedroom
cassette recorder	1	parental bedroom
CD-ROM player	1	living-room
cordless telephone	3	
answering machine	1	living-room
PC	1	Matthew's bedroom
multimedia PC	2	living-room
e-mail address	1	
game console	3	
colour TV	3	living-room, parental bedroom, Matthew's bedroom
VCR	1	living-room
radio	5	living-room, bedroom (2), bathroom, attic
CD player	1	living-room
discman	1	
walkman	1	
telephone	3	living-room, kitchen, parental bedroom
GSM	3	
modem	1	living-room
fax	1	living-room
internet connection	1	living-room
handheld	2	

The most important media appliance in this family is the television set. When given the choice to be deprived of either the television or the computer, they all chose the computer. They explained that they could not live without TV. The children, especially, watch a lot of television. Television programmes are even used as a reference point in everyday conversation, as illustrated by this excerpt that starts after Rebecca notified Matthew that everything he said was being recorded.

Matthew: They (*refers to the 'people at university'*) shouldn't sit there listening to it (*refers to the tape*) with bulging eyes and their tongue on the ground.

Rebecca: You watch too much of Ally McBeal.

Matthew: No

Matthew and Rebecca: The Mask!

9.1.3. A family in separated connectedness.

The determining factor in the Collins' family dynamics is their temporal structuring or rather their total lack of temporal structuring. As indicated by this key excerpt:

¹ By the end of the data collection Rebecca had already bought herself a new GSM while Lisa was given the old one.

Andrew: Well, they (*the children*) don't have any regularity here, it is pretty irregular. I'm not around... Anyhow, in summertime I'm always home late. But during the week Rebecca is also home much too late for... Well, she stays in the day-care centre until 7.00 p.m., so our children are in the after-school child care and afterwards they have to go to our day-care centre, and there they have to help taking care of the little ones (*the children in the day-care centre*) and afterwards they arrive home. Then dinner has to be made and everything. When we finish dinner it's often 10 p.m. So what remains of your evening? You don't have an evening anymore, you see? So for the children it's... Well it's easy for them to slip through the net. They go from school to after-school child care and then to the day-care centre, then they go shopping for groceries with their mum, then they arrive at home, it changes constantly and they aren't anywhere for a substantial amount of time. You can't get a grip on it, because when they've just arrived home, you can't say to them right away: "Sit down and start studying." Then they say: "But I've already done that over there." They have an explanation for everything. So you lose control. If your life isn't regular and you can't say: "The kids come home from school, they do their homework, then we eat..." then, in lots of families, they wash themselves, watch a bit of TV, or play... It's totally different here.

Both parents are very busy with the organisation of the day-care centres and work long hours. When they are at home they are often not available for their children because they do the day-care centres' administration on their home computer. This is especially clear when analysing a normal ESM week. Rebecca is up between 6 a.m. and 7 a.m. and goes to bed between 22.30 p.m. and 23.30 p.m. One big exception was found on a Saturday when she stayed up until 02.00 a.m. in order to round off the quarterly report for the day-care centres. She did this while Andrew was watching television. Before going to bed Rebecca is either working on the computer for the day-care centres or is doing the laundry. At weekends they also work a lot at the day-care centre. As a result, Matthew and Lisa are often home alone.

9.1.3.1. Internal relationships.

The result of this temporal chaos is a total lack of 'family time'. The Collins hardly ever do things together. However, they have a strong feeling of togetherness. When analysing the individual questionnaires it is clear that all family members score high on the cohesion scale but at the same time score high on the disengagement scale. This indicates the danger of over-romanticising or overemphasising 'family time'. Here we have a family that hardly spends any time together but nevertheless has a great feeling of togetherness and belonging. Physically they are separated but mentally they are connected, although the parents struggle and feel a bit guilty about the fact that they spend so little time with their children:

Interviewer: (*to parents*) Do you have any hobbies?

Rebecca: We do but for the moment we can't do them.

Andrew: My work is my hobby. I work at the docks and when I'm ready over there I've got four other addresses to go to.

Rebecca: Yeah, it's your hobby, work, that's your hobby.

Andrew: That's my hobby.

....

Matthew: But, how shall I put it, just as a hobby doing stuff with us, that isn't possible anymore.

Andrew: No. I admit, I treat my children unfairly because I hardly do things with them, there you go, it's a confession.

Classifying the Collins along Livingstone and Bovill's family interaction typology, would mean labelling them as a distanced family (low on interaction). A label that has an (intentional or unintentional) negative connotation: This is a dysfunctional family type. Here we touch on an interesting finding: the Collins are a distanced family but at the same time very much connected. They are a family in separated connectedness. It is the feeling of connectedness that keeps the family together more than family interaction.

In accordance with Livingstone and Bovill, we found that television is watched separately in this type of family. Although, in this case, this is mostly due to time considerations. As illustrated by the family members' exposé on their daily routines:

Lisa: When we (*refers to herself and her mother*) arrive at home in the evening I'm sometimes allowed to watch TV because I always finish my homework at school.

Rebecca: And I arrive at home at about 5 p.m. And Matthew arrives at 3.15 p.m.

Matthew: That's because we don't have supervision.

Lisa: Then I may watch TV, eat, watch TV for a while and go to sleep. Sometimes I put on a cassette with quiet music or sometimes when I'm allowed I go to their bed (*refers to parents' bed*) and then I calmly watch a series and then I go to sleep.

....

Andrew: Yeah well, if I do something in the evening, I arrive at home, mostly it's already very quiet around here but then I dare to put on the TV. Either to watch the news or...

Rebecca: The weather forecast.

Andrew: From time to time the weather is important to me when I have to work outside. So it happens that I want to see it. And sometimes I watch it in bed or a movie, when there is a movie on. But I don't search for programmes anymore. There are times, when you have a calmer lifestyle, then your TV evening is a TV evening. It isn't like that for us anymore. So when I arrive at home in time, in some cases when I happen to see something by accident then I try to take it into account and try to arrive on time so that I can still see a part of it, a movie or stuff.

In addition, the data indicate that all media appliances are used separately most of the time. However, there is one media appliance that seems to fit perfectly into this family in separated connectedness: the GSM.

Interviewer: Why do you use the GSM?

Andrew: My wife uses it for her job and I...

- Rebecca: I use it to phone him (*refers to Andrew*).
- Andrew: ...exclusively to keep in touch with my wife, to know where I'm needed or when something is wrong.
- Matthew: I also use it to be connected to mum and dad when I go somewhere, in case something happens or when I'm out with friends and we make an appointment to meet each other and there is a delay because they all have a GSM.
- (*Andrew and Lisa confirm this by saying: 'Yes, yes' during the whole of the exposé*)

All family members agree on the items with regard to the conversation orientation of the Revised Family Communication Patterns Index, especially on the aspect of the sharing of opinions. However, Andrew reports that feelings and emotions are not shown and certainly not shared with one another. What is most striking is the fact that all family members disagree with the conformity oriented statements except for those statements that deal with parental authority. They agree that everyone can have his say over anything but also agree to the fact that the parents make the final decisions, especially when it comes to important matters. Children are expected to obey. However, it is not clear what happens when rules are not obeyed. With regard to ICT use there are two main rules. Firstly: 'Do not go on the computer (Internet) on your own.' Secondly: 'Do not watch TV during the week.' Repeated as often as they are broken:

- Interviewer: (*to Matthew*) Do you work on the computer when you're home alone?
- Matthew: No, I'm not allowed to, I don't have the permission to do so.
- Father: No, but he already did, (*cynically*) but he's not allowed.
- Mother: Actually he's not.
- Lisa: Me neither.
-
- Andrew: They don't have a TV (*refers to a TV in their bedroom*) but they do watch lots of TV anyhow, well, I find they do. Matthew often goes upstairs to watch it secretly.
- Matthew: At weekends when you (*refers to his parents*) aren't at home.
- Andrew: Yes, and Sunday morning when we get up they are in front of the TV set. That happens frequently.
- Matthew: And Saturday.
- Andrew: And, if they have the opportunity, when they get home from school before I arrive at home.

Within the family dynamics, rules are only meant to get a feeling of control and functionality. They are a substitute for being there and raising the children. Since their parents are mostly not around, this leaves Lisa and Matthew with a window of opportunities to go behind the parental back when it comes to ICT use. Parents seem to have settled for the fact that their children know the rules but do not obey them. This also became clear during the ESM. On several occasions during weekdays, Lisa reported being in the parental bedroom watching television while lying on the bed - although she is not allowed to do so. Moreover, Andrew and Rebecca acknowledge that she does.

The parental subsystem is very strong. Husband and wife are oriented towards each other. Andrew, for example, measures other relationships against the relationship he has with Rebecca. However, in relation to the children, Andrew is the authority. Throughout the different interviews and observations Matthew and Lisa use the polite form when talking to their father. During group interviews Andrew is the one that takes over the conversation. A relation that is also found in family members' ICT use where Andrew claims the 'expert' function:

Andrew: I'm still exploring the Internet. Because it's so difficult, so I have difficulties staying away from it. I don't have much time for it, but it consumes my nights, because each time you discover more and more. Actually you go on the Internet when you're looking for something. Now I bought myself a laptop, second-hand of course, for the company (*means the day-care centres*). To make it easier for my wife, so she can take it with her. I try to make as many programmes as possible myself. Because they are very expensive. For example, when I have to put in the annual overview (*for his wife's day-care centres*), the computer automatically fills out the annual overview. But that's a lot of work because I'm linking it. If everything goes well I have to go to yet another day-care centre. Most people know even less about it than me... So lots of times I'm occupied with the optimisation of the PCs: the renewal and the improvement. They (*the government*) always ask more, they regularly want to have new information so I try to figure out how to optimise this information. I do this for my wife, to relieve her of as much work as possible, computerise as much as possible.

In addition to developing computer programmes, Andrew makes up the rules with regard to Internet and computer applications. He employs a bounded parental stimulation. He does stimulate his children to gain knowledge about computer applications by reading manuals, going to the cyber café, and following courses. However, their knowledge is not allowed to pose a threat to his expert function. Since Andrew is very insecure about the Internet he blocks it from his children by using the excuse that they are not skilled enough.

Andrew: I'm not anxious about them (*refers to his children*) using it too much, but I think that they aren't skilled enough. Because my wife still has a bit of a problem with it. I've used it the most. However, I'm not an artist at it. I'm just a bit better at it. But the Internet is still a huge mystery to us. You can give up the address of a web site and then you get it but automatically you get a pile of publicity and you will never be able to find your way around. With these search engines and stuff, I already know something about it but I haven't tried to search for anything properly yet because I get stuck all the time. Then they ask whether you want to subscribe to something and stuff. That's enough to scare me off. I'm a bit frightened because I'm much too insecure about it.

The Internet has made Andrew insecure about his 'expert' capacities and he does not know how to handle it. He is afraid of losing control. This attitude is in contradiction to the fact that Matthew and Lisa are very knowledgeable about the Internet as reported by their mother:

Rebecca: But the children, it has already been two holidays that they go to Telepolis for an introduction to the Internet and to know how it works, you know, to have an introduction. Actually they know more about it than us.

Interviewer: *(to the children)* Do you talk about the Internet to your parents?

Matthew: Yes sometimes, I did, in the beginning because then I explained... well told a few things about the Internet to our father...

Lisa:...to beg for a connection *(laughs)*.

Andrew: Yes yes *(a bit irritated)*

However, Matthew is very quick to downplay their expertise in order not to threaten his father's expert function. He even acknowledges his father's opinion that a computer course is necessary to gain knowledge about the internet. He knows perfectly well how to target for his father's soft spot:

Matthew: The following holiday I agreed with our mother and in consultation with our father that I'm perhaps undertaking a double course consisting of computer and horseback riding. So when I get back I will be more skilled.

However, there is one aspect of family life that is not under Andrew's control. After the FIG, I wanted to make an appointment for the following visit. This created the following sequence which is an indication of the fact that temporal structuring of family life (however poor it may be) is a maternal task:

Interviewer: Now, I would like to make an appointment for my next visit.

Andrew: *(to Lisa)* Ask your mother. Is your mother there?

Rebecca: What?

Andrew: Do you have your agenda? Yes? Because it is less important for me, it will always be in the evening, won't it?

Interviewer: Yes

Andrew: Because when it's during the week... we are very busy, even on Saturdays. We also have a day-care centre in another town. So she *(refers to Rebecca)* should have a look because she regularly has meetings.

Rebecca: *(joins the interviewer and Andrew with her agenda)* Yes what?

Andrew: *(to Rebecca)* Which days suit you?

It is important to note that the total lack of 'family time' is also related to the Collins' family life cycle stage. They are a family with two teenagers. Lisa is in her early teens. Although she hardly makes an effort, she is a very good student. Furthermore, she is an excellent gymnast who has already won a few competitions. She is admired by her parents for her talents. She took on the role of the prodigy. She cannot do anything wrong. The ad hoc observations indicate that she is very manipulative and tries to get things done her way by screaming and crying. Matthew, on the other hand, is the prototype of an insecure teenager. He feels as if he cannot measure up to his sister:

Andrew: Matthew has got lots of good qualities. Sometimes he doesn't think so, because he thinks that his sister is much better in lots of things.

Rebecca: Her school subjects.

Andrew: Her school subjects are better. His maths, French... However, Lisa's French wasn't that good this time. I believe his maths was better this time, wasn't it (*asks his wife*)? But he always had to do more of an effort studying than Lisa.

An inferiority complex that he tries to hide behind the image of a tough guy. Sometimes this leads to explosive situations between Matthew and Lisa, resulting in a physical conflict situation:

Andrew: She (*refers to Lisa*) really can make his (*refers to Matthew*) life hell. Nowadays, he hits her from time to time. Yes, he's turning into a big hunk of a fellow. But she's the venom. He often has to moderate his demands. But hey, she's his sister, isn't she?

A practice we even witnessed on one occasion during data collection. But Matthew also tries to beat Lisa on other grounds. In order to win his parents favour he often takes responsibility for cooking and other household tasks:

Interviewer: Who does the household tasks?

Matthew: I often help, my dad also, but my sister doesn't do anything at all.

Interviewer: Because you have to?

Matthew: I'm not expected to help in the household; some things are compulsory, but I do certain things of my own accord. You see, my parents demand that the house is clean and neat. I make sure that the table is laid, that dinner is ready, those are the sort of things that I take care of.

Although Andrew thinks that Matthew has an ulterior motive for doing this:

Andrew: There was a period of time that Matthew went home straight after school because he didn't want to go to the day-care centre. So, then he already made dinner, or preparations for dinner, and that was a good thing. But in the mean time he could do whatever he liked, because I wasn't home. He was home before me.

This ulterior motive also indicates that Matthew is looking for independence, respect, and privacy. This is also apparent when he loses his own room due to redecoration and rebuilding:

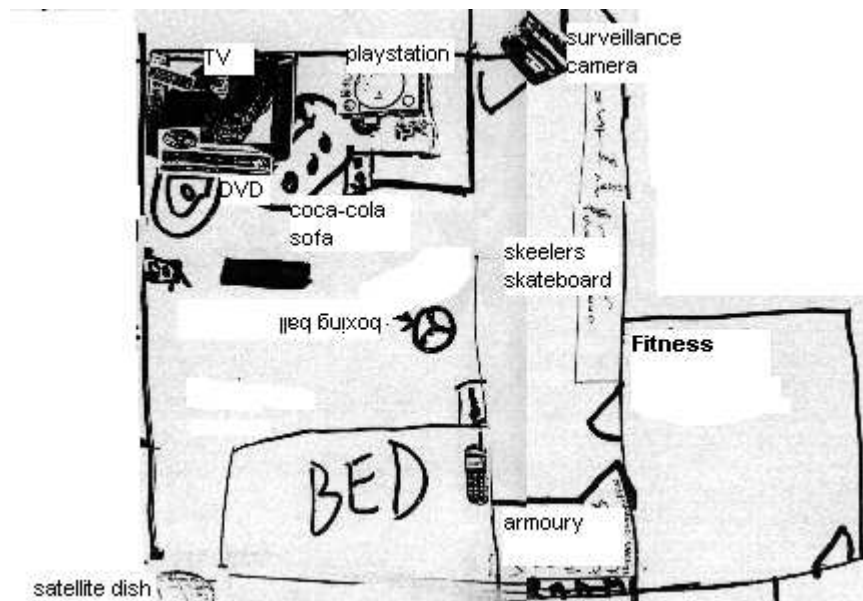
Matthew: Formerly the desk, nowadays containing the computer, stood in my room. Then I sat there doing my homework while listening to the radio or with the CD-player on. But that's changed because I don't have a desk anymore.

Andrew: No, but when his room is finished everything will be back in place.

The need for privacy is also carried through in the design of his ideal bedroom (figure 9.1.1.). Matthew placed a surveillance camera on top of the entrance door. This creates a guarded boundary between 'his domain' and the rest of the family home:

- Matthew: I've got my DVD-player, my TV and my remote control with my playstation attached to it. My GSM and my satellite dish near my window and a camera when someone wants to enter my room. (*acts*) "Bzzzbzzzbzz, You! Get out! (*imitates an explosion*) Bang! Lisa, get away from that door! It's my third camera this week!" (*laughs*)
- Lisa: (*finds it very childish*) Very funny! Matthew, you will not get into my room, because when I put a mirror over here, then I'll see you and then... (*imitates a mirror that breaks to pieces*) and then my whole room will be covered in glass.

Figure 9.1.1. : Matthew's ideal bedroom design

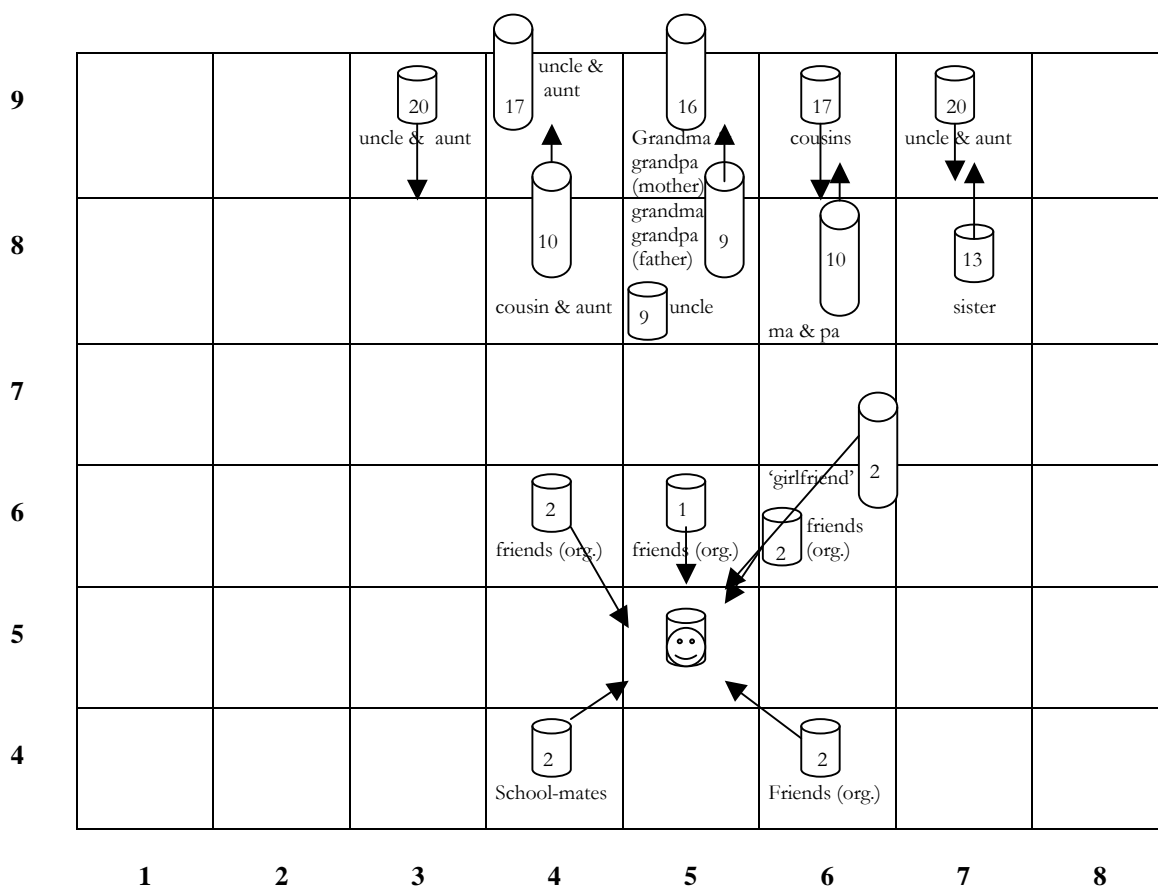


The excerpt and the drawing are a clear indication of the fact that media appliances can contribute to privacy creation. Matthew splashed ICT all over his ideal bedroom. Thereby creating a multimedia island.

9.1.3.2. Relationships with the outside world.

Matthew articulates his independence by orienting himself towards his peers. In his family plan (figure 9.1.2.) the dyadic distance to his friends is two or one. The dyadic distance to his parents is ten and to his sister thirteen, although he elevated his parents. His family plan is the depiction of the two separate worlds in which he lives: one centred around his family and one centred around his friends.

Figure 9.1.2.: An excerpt of Matthew's family plan



Matthew, Lisa, and Rebecca have an extensive list of friends. However, Rebecca admits hardly seeing them because most of them live abroad. Matthew and Lisa have the largest and most dense network of friends. Lisa's friends are almost all in her gymnastics club while Matthew's friends are almost all related to his membership of a youth movement. Andrew and Rebecca are more oriented to the core of the family, as illustrated by Andrew's clarification of his family plan:

Andrew: I should place my wife in the middle and definitely can't forget my children. Here I place my son, Matthew. I consciously put my daughter Lisa in this spot (*next to him*), because she's my daughter, logically that is a whole different sort of tie... Actually, I'm a very asocial being. ... By now, you definitely figured out that the family group is very small and that the strength of the ties seriously weakens when you go beyond the nearest family members.

The only one with a stronger tie to his extended family seems to be Matthew. Rebecca characterises him as a 'family man'. At first sight this seems to run counter to Andrew's views about family. However, when taking a closer look, they both ascribe the same meaning to family:

Andrew: When you talk about family and friends, it deals with how strong these ties are. How far can you go? It's about what you do or don't do for each other. What can I get this person to do for me? So I don't do anything for the rest of them. Only when I have a goal.

...

Rebecca: He (*refers to Matthew*) has a broad idea about family. He has a real 'family feeling'. Lisa doesn't have that.

Matthew: So she shouldn't come to us when she needs something.

Family is perceived as functional. Family and friends are measured against what they can do for you or what you can get them to do for you. It is a question of being in control; this being an indication of the fact that family cannot be defined as biological ties but is more of an emotional concept as Andrew puts it:

Andrew: I could jot down the whole of the extended family, because they will always be friendly when you meet them, but if you don't see each other unless someone dies... That isn't family anymore, isn't it? The people I work with are more of a family to me than my family, although they aren't friends either.

Again, control over the situation seems to be important. The same phenomenon can be found in Rebecca's explanation of her family plan:

Rebecca: I will leave them at the same size. I hope that I'm not so impressionable; I'll put it like that. However, my parents... But they aren't on the board anymore (*note: They are dead*).

Interviewer: How would you say that they influence you?

Rebecca: Well in the way you think about things and everything. Actually, they form you don't they? They give you a lot of baggage. And my mother was a very dominant character; they often compared her to Joan Collins (*laughs*). She was quite something, not only in a negative sense though, but she knew how to manipulate people.

....

Lisa: (*to Rebecca*) I heightened those that influence me more.

Rebecca: But I'm not influenced anymore, I don't want to be impressionable anymore.

The same sense of control is found in the Collins' ICT use. Andrew does not allow for much external influence. He evaluates external input from his 'expert' point of view.

Interviewer: Do you have a free Internet connection?

Andrew: No. You can get it, but you need another provider. I've kept my provider. I could have changed to World Online, my provider told me, because I had Uunet. But I haven't done it yet, I'm going to read through it again, because they've sent me several e-mails about it and I've kept them all. But I don't see the use of it. According to a guy at work there are certain providers via whom you can get a faster connection to certain sites and that offer better links.

...

Rebecca: The news vendor said to me: "I have to be very careful with the Internet or else I end up somewhere where I don't want to be."

Andrew: That's ignorance, pure ignorance.

Opinions about ICT that come from the outside world are stopped by Andrew's strict boundary management.

9.1.3.3. *Family theme.*

In the individual questionnaire all family members indicated that they experience events and developments as something they can control themselves. They do not believe in an external force that controls their lives. When we place this along the lines of Reiss (1981) concept of family paradigm it is clear that the Collins family approach events from an internal reference point of view. Their own experiences are used to frame events and experiences. For example, they do not want to be ruled by market principals:

Andrew: (*in reference to the speed of the Internet connection*) I think that they are already capable of improving it but it's all commercialism, it has to be expensive. It may not evolve too quickly because then... The same question is: 'Why does everyone keep on driving on petrol?' The petroleum market has to keep on turning. They could already have switched to alternative sources of energy. But it's the same as everything else. Sales have to keep on going.

Rebecca: They already made a car that drives on water or was it sugar-beet (*laughs*)? I don't know anymore but the Arabic Emirates quickly bought it up.

Matthew: Even an engine that runs on air.

Control is the key word in their family theme. They are proud of the fact that they are: 'A family of arrangers.' Making their family theme: 'We are in control and arrange things the way we want.' To them, the term 'arrangers' combines organisation and functionality. For example, family interaction is mostly functional for making arrangements and organising family life:

Interviewer: (*to Andrew and Rebecca*) Do you talk to each other?

Andrew: Not much, we have a relatively busy life. When we come home in the evening and there is still some time, we watch TV. When there is no time left, we go to sleep.

Rebecca: We go to sleep and otherwise we talk. We talk a lot in the evening.

Andrew: Talking about things that still have to be done or things that are done. Or we go on the computer...

Rebecca: To work.

Andrew: To work, if it has to be done. But really talk about something, about the release of a movie or about music... we don't have the time to do that for the moment.

ICT use parallels this family theme. With regard to ICT 'arranging' stands for making your own software and buying second-hand appliances, an indication of the fact that media appliances are seen as 'precious durable goods'. They are kept until they are completely worn out. When something is broken it gets fixed. Rebecca and Andrew stress this durability and want their children to handle the appliances with care. This factor is also taken into account when new appliances are purchased. They only want to buy something for their children when they know they will be able to handle it with care:

- Matthew: I have had mine (*refers to his CD-player*) for four or five years already without anything happening to it. It is the first time something happened to it. So she (*refers to Lisa*) can have mine and I would possibly get grandpa's.
- Andrew: I found that she (*refers to Lisa*) was too young to have a discman and stuff because she's rather untidy...
- Matthew: Very untidy.
- Andrew: And well, I think that it will not last for long. But once his room (*refers to Matthew's bedroom*) is finished, I don't see why she couldn't get a small music installation herself.
- Lisa: Mum saw this installation with a little TV in an antique shop. So she had the idea to take me there to have a look at it. But when we arrived there, the shop was closed so she said: "We'll come back later and maybe they have this in a more modern version too."
- Matthew: Otherwise she can have mine and perhaps I could have grandpa's...
(*Lisa coughs meaningful*)
- Rebecca: We'll see about that.
- Andrew: Yes, here, everything gets arranged like that. Because he (*refers to Matthew*) inherited his grandpa's music installation. But actually it is of no use to him yet because it's in the day-care centre at the moment and it's being used by us when we're there.
- Rebecca: He (*refers to Matthew*) plays with it at weekends.
- Andrew: For a while, it had been standing where they played. It already has some minor shortcomings but most of it is intact. So after a while it will be moved in again, and then the small installation in his room won't be of any use to him anymore. But we discuss this together until everybody is satisfied. If she doesn't want his installation because of this or that because he got a new one. Eventually we'll say: "OK, you also get a new one." But if she's fine with it, it's cheaper for us and she's happy. We don't want to do her short but if she's happy with it, it's better for us of course.
- Lisa: Sometimes, it's the same with clothing. I have to wear his (*refers to Matthew*) sweaters.
- Rebecca: Actually, we've even never bought a TV.
- Andrew: We've never bought a new one.
- Rebecca: We've always had cast-offs from others that daddy (*refers to Andrew*) fixed up.

The family theme can be seen as a tool to cope with changes to the family system. A perfect example is the way in which the family deals with the introduction of the Internet in the family home. First try to get it under control by searching for its functions in manuals and courses, then make use of it. However, while this does not mean that it is necessarily an effective strategy, it is a strategy that works for this family.

9.2. The Brown family.

9.2.1. Socio-demographic structure.

mother: Emma (°1955)

occupation: housewife

educational level: higher education (<4 years)

net income per month: not applicable

father: James (°1953)

occupation: medical general practitioner (independent profession)

educational level: university

net income per month: between € 2479,54 and € 319,32

daughter: Olivia (°1988)

11 years old (at the beginning of data collection)

12 years old (by the end of data collection)

son: Jordan (°1990)

9 years old (at the beginning of data collection)

11 years old (by the end of data collection)

The Browns live in a very small charming town. A town that is surrounded by a wide ring road. Their home is situated in the town centre, nearby the town-hall and the main shopping street where you can find everything from food to clothes and interior decoration materials. James' practice is located in the family home. Furthermore, he is affiliated with the local medical centre. He organises it and does the administration. They are very much privacy oriented. While other families were already very open after my second visit (being the FIG) they kept at a distance until the end of data collection.

9.2.2. ICT density.

Although they did not have an internet connection the Brown's ended up as a multimedia family especially due to the high density of media appliances in James' practice (table 9.2.1.).

James' practice contains an ICT cluster consisting of a fax, a modem, a telephone, a cassette recorder, a stereo, and a multimedia PC. James clearly states that practice equipment is not to be used by other family members. These are media appliances for professional use only. Inside the family home the main ICT clusters are to be found in the living-room. The main television cluster consists of a colour TV, a connection for cable TV, a video camera, and a VCR. The main audio cluster contains a stereo, a cassette recorder, a radio and a CD player. There are scarcely any media appliances in the children's bedrooms. The ICT clusters in James' practice make the Brown's an

atypical family in the cluster of multimedia families. They are only interested in ICT when it is functional for James' practice.

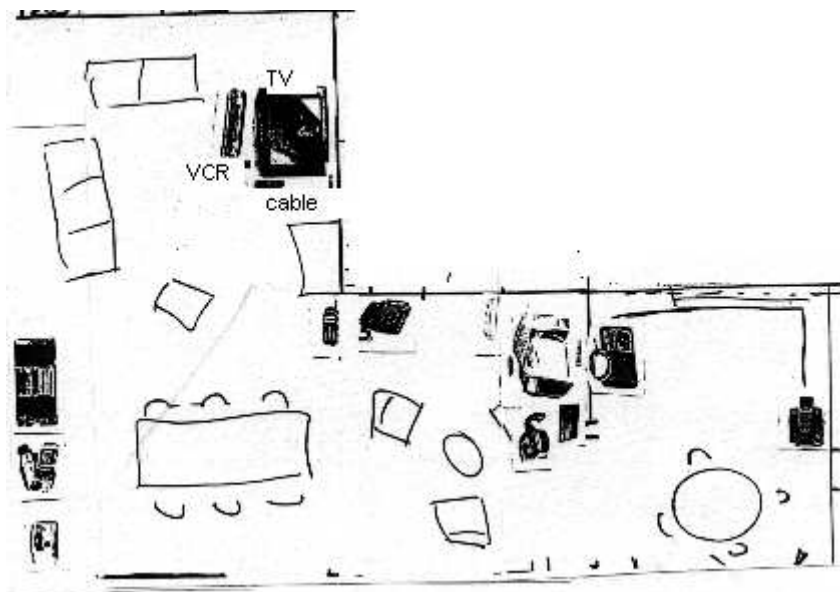
Table 9.2.1.: Frequencies and placing of the Brown family's media appliances at home (survey results)

media appliance	frequency	placing
connection for cable TV	1	living-room
video camera	1	
stereo	2	living-room, practice
radio alarm clock	1	child's bedroom
cassette recorder	3	living-room, child's bedroom, practice
record player	1	practice
CD-ROM player	2	living-room, practice
cordless telephone	1	
answering machine	1	living-room
multimedia PC	2	living-room, practice
colour TV	1	living-room
VCR	1	living-room
radio	3	living-room, kitchen, attic
CD player	1	living-room
walkman	3	
telephone	2	parental bedroom, practice
GSM	1	
modem	1	practice
fax	1	practice
handheld	2	

The most important media appliance is the television set. After one week of ESM, Emma had already reported that it would look as if they were constantly watching television. An analysis of the ESM reports proved her right. This also became clear during the FIG. The Brown's started to furnish the living-room of their ideal home by indicating where the television set should be placed (see also figure 9.2.1.):

- Emma: *(to Olivia and Jordan)* Where do you want to place the television?
 Olivia: Near the sofas.
 Emma: Where are you going to put the sofas?
 Olivia: Over here.
 Emma: So we put the sofas here... I want a long sofa to be put here.
 Olivia: Or we could put it like that *(points at where she wants to place the sofa)*.
 Here, and that's the television set, OK?!
- Emma: In the middle of the room?
 Olivia: Yes, here you have the sofas *(around the TV)*, and then you can watch it like that.
 Emma: So where do you want to put the television set? In the middle of the sofas?
 Olivia: Here you have the kitchen, and then you can put your television set over here, so that when you sit here, you can see it...
 Emma: No, no, the kitchen is over there!
 Olivia: So what is this then?
 Emma: That's the dining table. That's this table and it's going to be a rectangular one not a round one.
 Jordan: *(is a bit puzzled)* So this is where we put the TV then, is it?
 Mother: Those are the chairs *(around the dining table)*!

Figure 9.2.1.: The Brown's design of the living-room and kitchen of their ideal home.



The other media appliances were put in the living-room when the whole of the ideal home was designed and furnished. These are also appliances that are less important to the Brown family. In their everyday life, for example, the multimedia computer is mainly used for educational purposes. Even during holidays, Jordan and Olivia are given educational CD-ROMs to practice maths and languages.

9.2.3. A family bound by spatial organisation.

9.2.3.1. Internal relationships.

The key to the Brown's internal organisation lies in James' practice. It is central to family life. The family adapts itself to James' practice, as Emma points out when explaining why she heightened her husband on the family plan:

Interviewer: You heightened your husband. How would you explain his influence?

Emma: Because we orientate our life according to his situation since he's got a practice.

Interviewer: The family is organised around it?

Emma: Yes.

Since the focus is on James' practice, Emma decided to stay at home to look after the children. This arrangement induced traditional role-patterns: father is the bread-winner and mother is a housewife - A division that seemed to be needed to preserve family functioning. To get a better insight into what this means in their real life situation, a normal ESM week is presented (figure 9.2.2.).

Figure 9.2.2.: A normal ESM week in the Brown family

* the whole family	□ James	⊕ Jordan
○ Emma	⊙ Olivia	

<u>Tuesday</u>	12.20 PM			*				
					living-room (dining-area): having dinner			
	05.10	○ living-room: ironing	□ blood transfusion centre: patient examination	⊙ no account		⊕ no account		
	06.42	○ living-room: doing nothing	□ blood transfusion centre: patient examination	⊙ living-room: watching TV		⊕ no account		
	08.55	○⊙ living-room: watching TV/ making a bracelet	□ blood transfusion centre: watching TV			⊕ living-room: watching TV		
<u>Wednesday</u>	07.45 AM			*				
					kitchen: having break-fast and listening to the radio			
	04.18 PM	○□ living-room: assembling a saxophone		⊙ no account		⊕ no account		
	06.49	○ living-room: eating	□ blood transfusion centre: prick a patient			⊙⊕ living-room: watching TV		
	09.10	○ no account	□ blood transfusion centre: prick a patient	⊙ no account		⊕ bedroom: sleeping		
	10.07		○□ living-room: browsing through advertising leaflets	⊙ bedroom: reading		⊕ bedroom: sleeping		
<u>Thursday</u>	10.24 AM	○ at home: vacuuming	□ no account	⊙ at school		⊕ at school		
	04.28 PM	○ no account	□ at home: run up bills	⊙ bedroom: doing homework		⊕ no account		
	06.03	○ no account	□ no account	⊙ living-room: watching TV		⊕ no account		
	07.12	○ living-room: browsing through advertising leaflets	□ living-room: browsing through a catalogue			⊙⊕ living-room: watching TV		
	08.36	○⊙⊕ living-room: watching TV	□ car: driving to a retraining course					
	09.33	○ living-room: watching TV	□ at the retraining course	⊙ bedroom: reading		⊕ bedroom: sleeping		

Friday	11.22 AM	O kitchen: making dinner	□ at the medical centre: talking about the construction of a car park	⊙ at school	# at school
	04.51 PM		O□ Kitchen: talking and drinking coffee	⊙ no account	# no account
	06.43	O living-room: eating	□ in the practice: organisation medical centre		⊙ # living-room: watching TV
	08.09	O living-room: talking to a friend	□ medical centre: reviewing the book- keeping	⊙ no account	# no account
	09.44	O Bathroom: washing myself	□ in the practice: checking the payments for the employees of the medical centre		⊙ # living-room: watching TV
Sunday	11.14 AM	O living-room: watching TV whilst cleaning		□ ⊙ # living-room: watching TV	
	12.16 PM	O kitchen: preparing dinner	□ living-room: lighting a fire in the hearth		⊙ # no account
	01.28	O kitchen: doing the dishes	□ living-room: lying down on the couch		⊙ # no account
	02.49	O no account	□ living-room: dozing on the couch	⊙ bedroom: doing homework while listening to music	# living-room: playing on the gameboy
	03.57	O no account	□ no account		⊙ # living-room: watching TV
	05.37	O at home: looking for keys	□ no account		⊙ # living-room: watching TV
	07.09	O no account	□ no account		⊙ # living-room: watching TV

The ESM, as well as other data, indicates that Emma takes on all the household chores. She cleans, does the dishes, and makes dinner while James is totally occupied with his practice. Whenever James is at home, he relaxes. A perfect example can be found in the first sequence of Sunday morning (figure 9.2.2.). While Emma is cleaning, James watches television. Later on, while Emma prepares dinner in the kitchen, James lights a fire in the hearth. After dinner, Emma does the dishes while James is lying on the couch dozing. Furthermore, James is absent for most of the evenings. He either attends a retraining course or is busy with the organisation of the practice and the local medical centre. As a result, Emma and the children are often home alone. This stimulated the introduction of a television in the family home:

James: She (*refers to Emma*) did go on about having a TV a long time before we had a TV.

Emma: I've been without a television for two years. He was always away for a retraining course and then I said: 'I want one.'

....

James: Actually I find it (*watching television*) a waste of time.

Interviewer: Why?

James: Well, there's never anything interesting on it (*Olivia and Jordan laugh*)
But you can't work every evening.

Emma: Work constantly.

James: No, but actually I often think it's a pity. Then you lose four hours, or several hours.

Interviewer: You could turn it off.

Emma: (*laughs*) Yes.

James: But I also have it when I'm alone in the evening and the set is turned on then I watch it for the rest of the evening. Otherwise I would listen to music and read a bit.

James uses television as a tool to fill up his, already limited, spare time because he does not know what else to do when he is not working. Emma regards television as a tool to cope with the loneliness created by James' absence, a solution that was chosen over other possible solutions such as finding leisure activities to keep her occupied or asking James to spend more time with his family. Due to its important meaning to family life, the television soon became deeply embedded in the Brown's everyday routines:

James: Normally they have to do their homework first and then they start watching television, around six P.M.

Apart from being embedded in existing family routines, the television set created new ones. As Jordan reports:

Jordan: We're allowed to watch television during evening dinner, because we have a sort of lunch box and then we're allowed to sit in the couch and watch TV and eat.

A phenomenon that was also observable during the ESM (figure 9.2.2.). On two separate occasions Emma reported that she was eating in the living-room. At the same time Olivia and Jordan reported watching television in the living-room. Eating in front of the television set replaced the evening dinner together.

Since James is absent for most of the time, Emma and her children form the core of the family. However, this does not imply an emotional connectedness. They live their life in physical compartmentalisation. Normally, James is busy at the practice, Emma is doing household tasks, Jordan is watching television, and Olivia is in her bedroom listening to music. They appear to be indifferent towards each other. On the rare occasions that the Brown's are together it boils down to mere physical togetherness. Overall, family members hardly do anything together. Olivia and Jordan, for example, hardly ever play together:

Interviewer: Do you often play with Jordan?

Olivia: For example, this morning I wanted to play outside so then, well there is nobody else around here but Jordan. But he didn't want to, so... But

usually it's that way: when I don't want to, he wants to and the other way around.

This is also perfectly illustrated by the Sunday morning sequence of the normal ESM week (figure 9.2.2.). It is the only occasion on which James reports that he is watching television with his children. In their booklets, Jordan and Olivia report that they wanted to watch television. In addition, they report not doing something else and to be thinking about nothing in particular. James, on the other hand, reports that he did not know what else to do and that he was drilling holes in the wall while thinking about the fact that the landing should be cleaned up. At first sight, the family watching television together might be interpreted as 'real' family time. The ESM refutes this. It is clear that James did not plan for this family time and is even not aware of the opportunity.

Both parents agree on the conversation orientation and consider the family high on expressiveness. However, they do indicate that they take all the decisions without consulting their children. In their questionnaire, the children report a lack of conversation orientation and expressiveness. As Jordan writes down after the FIG:

Question: Are you satisfied with the ideal home?

Jordan: No, because I hardly had the permission to say what I wanted to say.

This also surfaces in the children's ICT use. Jordan and Olivia indicate that they only talk about ICT with their friends. Furthermore, parental rules with regard to ICT use are discussed nor negotiated:

Interviewer: Do you agree with the rules?

Olivia: (*smiles shyly*) No.

Interviewer: And do you talk about it?

Olivia (*shy*) No.

Jordan: No.

James: They growl a bit. (*to Olivia and Jordan*) Don't you?

Olivia: (*smiles shyly*) Yes.

Emma: Or they go on about it.

James: But that doesn't work.

It is clear that rules must be obeyed. Both parents and children indicate that the children must obey their parents. Although, it is often not clear what the rules are. The only rule that was made perfectly clear throughout data collection was: 'When there are visitors, the television set gets switched off.' However, this created protest and quarrels with the children. Leading to an ambiguous situation whereby Emma questioned her own rule:

Emma: I would like to have an extra TV for myself for when I've got visitors so that the children can go and sit somewhere else. When they get older, it gets even worse. They find it annoying, that when I have visitors the television set gets turned off.

It reflects in the normal ESM week (figure 9.2.2.). When Emma reports having a visitor, there is no account of what Olivia and Jordan are doing. Before and after this visit they report watching

television. However, it will be unlikely that a second television set is placed in one of the children's bedrooms, although, during the FIG, Jordan was begging to have one in his ideal bedroom. At first, Emma teases him and leads him on about having his own television set:

Emma: Later on, you can pick what you want, Jordan, which television set you want in your bedroom. But mummy and daddy have to agree, else...
 Jordan: No, we get to choose ourselves.

However, Jordan is cunning when it comes to the set that he really wants:

Jordan: Ops, I already...the TV
 Interviewer: It doesn't matter; you can stick the picture on it.
 Emma: The TV? That TV, you're not getting it.
 Jordan: But I already drew it.
 Emma: You're not allowed. (*to the interviewer*) You see!

But Jordan does not give in on it:

Jordan: Here, a small TV, costs 174 and a big one, 496. So can I have a small one in my bedroom then?
 (*James laughs*)
 Emma: You're not getting a TV for now.

But when Emma again explains her visitors problem, Jordan spots an opportunity. This time, his sister is more cunning and bargains her mother into a second television set:

Emma: Do we have everything we need?
 Jordan: No
 Emma: A second TV, when we've got visitors.
 Jordan: Yeah well, and then you'll get it!
 Olivia: (*to Emma*) I would put it in your room.
 Emma: Yes, perhaps that's the best solution.
 Jordan: In my room.
 Emma: In my room.

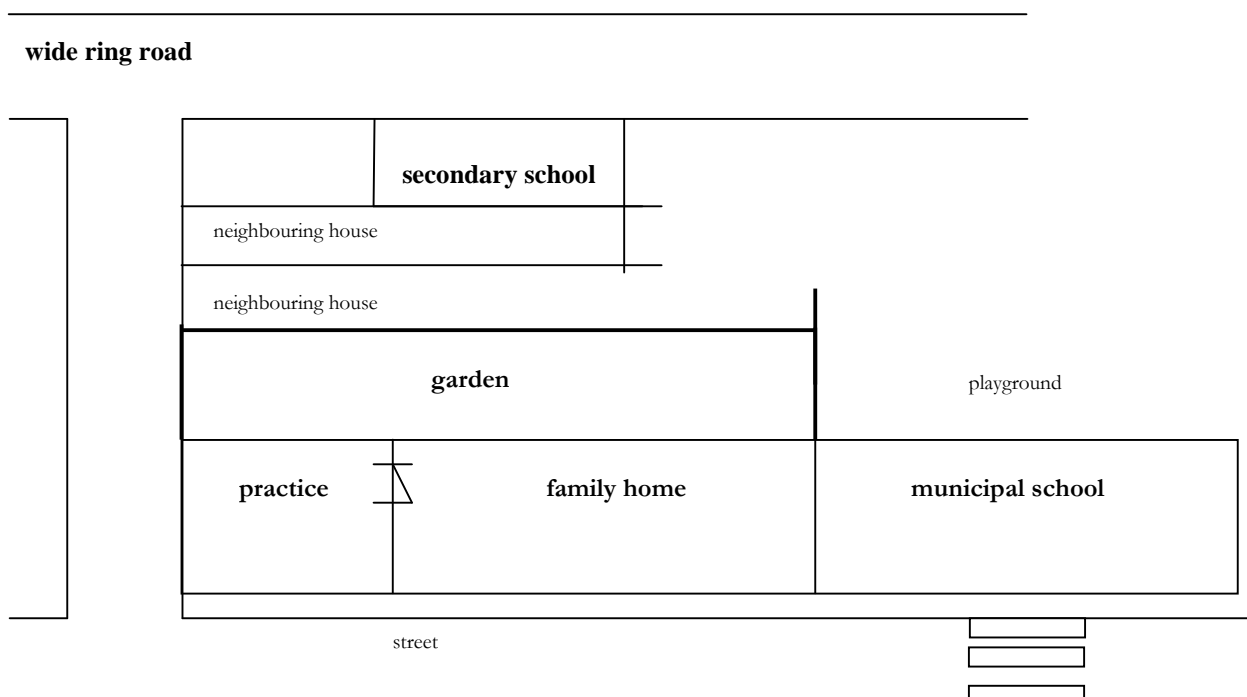
 Olivia: So, this is the small TV set. (*to Emma*) Put it in your room, and when there are visitors, we can go to your room to watch it.
 Emma: Yeah, I guess so.

In the individual questionnaire all family members report being high on cohesion. However, this does not imply internal cohesion but rather, as we will note, a cohesion towards the external world.

9.2.3.2. Relationships with the outside world.

While James' practice determines internal relationships, boundary management is the key indicator for the family's relationship with the outside world. The relationship between the family home and its wider environment (figure 9.2.3.) gives a clear indication of how the family perceives the outside world. Especially important is the ring road that runs around their town.

Figure 9.2.3.: The Brown's family home environment.



In their accounts of family functioning they clearly indicate that they manage family life inside fixed boundaries. These are not symbolic boundaries. They are physically present in family life. The first and most important boundary is the walls of the family home. Their garden is surrounded by walls (each about two metres high). One wall on the street side, one on the school's side, and one on the neighbours' side. If it is necessary to go outside the family home, the Browns make sure to stay as close as possible to it. Olivia and Jordan, for example go to school at the municipal school next door. Every noon Olivia and Jordan come home to eat and after school, they go straight home. However, in September 2001 Olivia started secondary school. James and Emma opted for a school situated around the corner so that Olivia could go to school by foot. As such, strict physical boundaries are set and there is a fear of trespassing them. However, maintaining these fixed boundaries does not stimulate Olivia and Jordan's development as Emma herself acknowledges:

Interviewer: The primary school is next door?

Emma: Yes.

Interviewer: And next year Olivia will go to secondary school?

Emma: That's only a street away.

Interviewer: It's quit easy to have everything nearby.

Emma: But it has a disadvantage too, they do not enter traffic. They aren't mature enough in traffic situations.

Interviewer: If they have to go further to go to school, they would go by bike?

Emma: She wants to do go by bike, but then she'd have to cycle around the block. That's all too crazy.

When family members do go outside the family home boundary, a new physical boundary is set: the ring road. Emma only allows the children to stay home alone when they (the parents) stay inside the ring road. An arrangement that was only possible due to the purchase of a GSM:

Interviewer: Are the children often home alone?

Emma: Nowadays more frequently. It couldn't be done previously. But now it's different with the GSM. But we are always inside the ring road.

For the Brown family, the GSM creates an opportunity to preserve the physical boundary of the family home while being able to go out. Emma and James simply take the GSM with them so that they could be contacted by their children.

Interviewer: Why do you use the GSM?

James: For my practice. But also for the children, for example at weekends, when we (*refers to himself and Emma*) go out together. But that's only for a couple of hours or so.

Interviewer: Are they often home alone?

James: No, that isn't often, previously we always had a babysitter, but now... Well, she (*refers to Emma*) wants to have a babysitter when we go outside the ring road. Else they are home alone.

Interviewer: And then they can contact you on the GSM?

James: Yes, At home we put on the answering machine so that they don't have to pick up the phone.

During the FIG it becomes clear that Emma is the one that urges to have a GSM that is used for boundary maintenance:

James: So what we don't want to have. A GSM, do they have a new one...

Emma: I would like to have one.

James: You would?

Emma: Yeah, because when we go out and we want to be reached.

James: Yes, but then you don't want to be reached anymore, do you? (*laughs*)

Emma: We do, if they (*refers to the children*) don't want to come with us.

The parental attitude towards the outside world is typical of the fact that the Brown family is entering a new life stage where rules from the previous life stage do not apply. This makes them insecure about what to do. An insecurity that is masked by over-protectiveness and fixed boundaries. As a result, Olivia and Jordan experience difficulties when it comes to contacting the outside world. For example by telephone:

Interviewer: Does Olivia use the telephone?

James: No, not that much.

Interviewer: And Adam?

James: Yes, but not a lot. But that's also a bit of a problem here. When they are little they can't pick up the phone. And now we have to guide them a bit so that they find their way. They do it, well they know how to, I don't help them; they have to look up the number themselves. But it doesn't go all that easy just because they are later than others to start using it.

Since the family home and the ring road are two fixed boundaries, all family members reported that their family network is small. Furthermore, it has a low density. Emma, for example, only puts her parents on the board. James does not even put his parents or his parents-in-law only his two brothers-in-law but at a large distance. The same situation appears in their network of friends.

Emma only reports one friend of her own. The other friends are her husband's colleagues. Again the importance of James' practice is illustrated.

9.2.3.3. Family theme.

In their individual questionnaire all family members indicate that they do not believe that external forces dictate their family life. To them it is under their own control. This belief originates in a fear of the outside world. As such, trying to control situations becomes the sense behind their actions. Their family theme can be paraphrased as follows: 'Stick to what you know and what is controllable.' As a result, their family life is a routine whereby Jordan and Olivia are kept dependent. When placing this in Reiss' conception of the family paradigm, it is clear that the Brown family lives with the notion of stable coherence. To the Brown family there is an underlying structure or order in the experienced world that remains fixed. A conception that also becomes clear in their views on purchasing media appliances. Although inside their family home media appliances create opportunities for physical compartmentalisation this is of no concern to them. What they do fear is a loss of control over the situation:

Interviewer: Did you talk about having a radio/CD/cassette player?

Olivia: Yes, at my eleventh birthday. We went looking for one then.

Emma: We didn't know whether we should do it or not.

Interviewer: Why did you doubt?

Emma: Well, radio in the bedroom well ... It's annoying from time to time. As a parent, you don't have any control anymore, how long they are listening. They can put it very quiet in their bed or with the headphone on.

Olivia: Well the headphone that's quite difficult! Firstly, I have to fetch him and then I have to plug it in.

The Brown's obsession with boundary management is an externalisation of the family theme. By living inside strict boundaries they feel that everything can be kept under control. They are bounded in a physical sense but also by the routines that originate from these physical boundaries. Due to James' profession their lives have become routine. As noted after the first 'normal' week of ESM when Emma explained that they catch themselves doing the same things every day and that one day is a perfect reflection of any other day:

Emma: Yeah well, it beeps at the same time and our pattern repeats itself.

She even feels awkward when she admits that it looks like the only thing they do is watching television. Due to the ESM a major family routine emerged that is not socially desirable. While in the interviews they give socially desirable answers, during the ESM they were confronted with their own behaviour.

9.3. The Bell family.

9.3.1. Socio-demographic structure.

mother: Vanessa (°1958)

occupation: housewife

educational level: higher education (<4 years)

net income per month: € 247,95 (benefit for Eric)

father: Richard (°1953)

occupation: bank manager (branch office)

educational level: higher education (>3 years)

net income per month: € 2231,59

son: Eric (°1982)

17 years old at the beginning of data collection

19 years old by the end of data collection

daughter: Erin (°1984)

15 years old at the beginning of data collection

17 years old by the end of data collection

The Bell family lives in the green district of a small village. It is a very peaceful area where they have built their own house. Eric is handicapped. During the week, he lives in a specialised boarding-school. At weekends, Vanessa picks him up and takes him home. Richard is the bank manager of a local branch office. He works regular hours. Vanessa is a housewife.

9.3.2. ICT density.

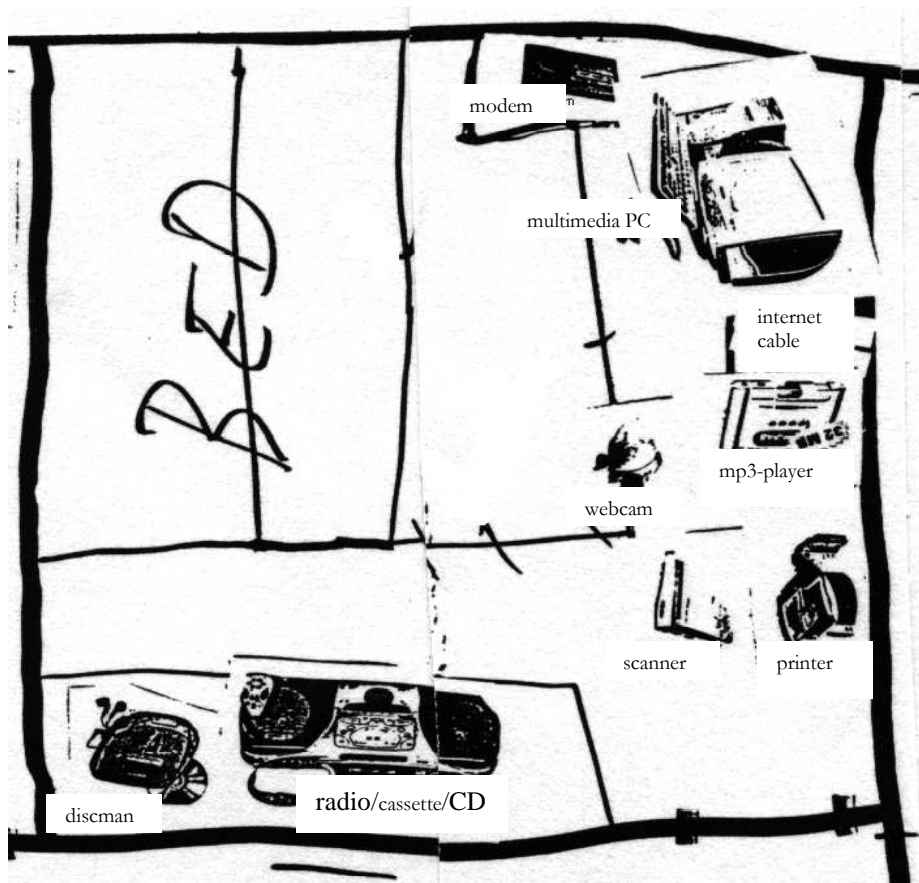
The Bell family was identified as a multimedia family due to the ICT density in Erin's bedroom (table 9.3.1.) The living-room is equipped with the main television cluster consisting of a colour TV, a connection for cable TV, and a VCR. Furthermore, there is a computer cluster in the living-room consisting of a multimedia PC and a modem. However, the most advanced computer cluster is to be found in Erin's bedroom. It contains a multimedia computer, a modem, and an internet connection. In addition, by means of an advanced video card, Erin is able to watch television via her PC. Furthermore, the living-room annex kitchen is scarcely equipped with audio appliances (only a radio/cassette player) while Erin's bedroom contains a stereo (consisting of a radio, a cassette recorder, and a CD-player).

Table 9.3.1.: Frequencies and placing of the Collins family's media appliances at home (survey results)

media appliance	frequency	placing
connection for cable TV	2	living-room, child's bedroom
stereo	1	child's bedroom
radio alarm clock	2	parental bedroom, child's bedroom
cassette recorder	2	child's bedroom, kitchen
CD-ROM player	2	living-room, child's bedroom
multimedia PC	2	living-room, child's bedroom
e-mail address	2	
game console	1	
colour TV	1	living-room
VCR	1	living-room
radio	2	child's bedroom, kitchen/living-room
CD player	1	child's bedroom
walkman	2	
telephone	1	living-room
modem	2	living-room, child's bedroom
internet connection	1	child's bedroom

The importance of these ICT to Erin also becomes clear in the design of her ideal bedroom. It is splashed with two ICT clusters: a computer cluster and an audio cluster. The computer cluster consists of: a multimedia PC, an internet connection, a cable connection, a modem, a webcam, a scanner, a mp3-player, and a printer. The audio cluster consists of a radio/CD/cassette-player and a discman. Furthermore, the bedroom design is very rudimentary. It is a box dominated by media appliances.

Figure 9.3.1.: Erin's ideal bedroom design.



After the FIG, Erin noted that she certainly would not have bought a GSM. The following excerpt indicates how Erin felt about GSM by the end of the data collection process:

- Vanessa: Meanwhile, she's got a GSM, so now they (*refers to Erin and her friends*) can send messages to each other, that's another method.
- Interviewer: When did you get the GSM?
- Erin: Last week or two weeks ago.
- Interviewer: And...is it expensive?
- Erin: It could have been worse.
- Vanessa: She's got a prepaid card, on that basis. She's got a card that contains a credit of 25 Euro and 25 Euro credit for free, so that makes a credit of 50 Euro. But it takes some time to run out of credit, doesn't it?
- Erin: Yes, actually I only have it with me when I go to school by bike.
- Vanessa: We've already made use of it when she had a flat tire or when she goes into town with her friends, not often, but sometimes she has to go babysitting or so on the same day. Well, then she can notify us...
- Interviewer: And do your friends also have one?
- Erin: No, well their parents do. But I send a message to their parent's GSM to make arrangements with them. Well, there are already lots of classmates that have one.
- Vanessa: In the classroom?
- Erin: Yes, they are sitting there in the classroom with their GSM, during lessons 'tuuuuuuut' (*imitates a GSM tune*) 'Oh', they say 'my watch! I've put a tune on it!' (*laughs*)

During ad hoc observation it became clear that Erin mainly uses her GSM to send messages (Short Message Service). This is a cheaper way of communicating than making an actual call.

9.3.3. A family in connected separateness.

Eric is the key factor in family dynamics. Since he is only at home at weekends, he divides family life into two time frames: week and weekend. As such, he induces the family's connected separateness.

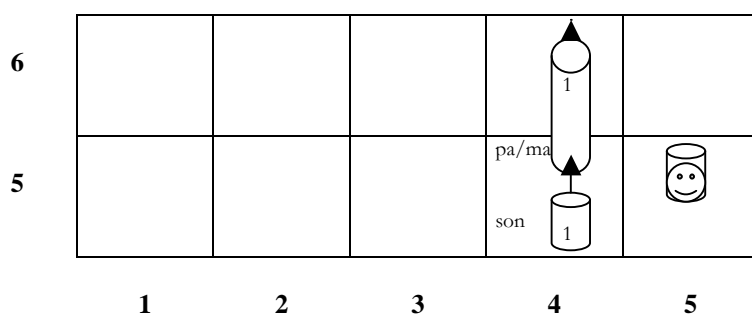
9.3.3.1. Internal relationships.

Although Erin is a teenager and her bedroom is fully equipped with ICT, it is striking that Erin's interest in ICT does not create physical compartmentalisation. Most of the time she is in the living-room together with her parents. She even prefers doing her homework at the living-room table:

- Interviewer: Are their rules with regard to computer use?
- Vanessa: Actually, no, because we trust Erin, she won't take advantage of it.
- Interviewer: She's got her own computer in her room?
- Vanessa: Yes, and up and till now she always studies here (*refers to the living-room*) so I know what she's doing. However, I can't evaluate anymore whether or not she's doing enough. She has to know it herself, she's sixteen years old. If she doesn't know by now... Sometimes, it isn't that pleasant that her stuff is always lying around here, but if that's the only way... She says that she's very easily distracted when she has to study in her room. Then she's got an urge to be on the computer, or with her music... So then she should study here. Well, during the week she's here by herself, so that's not a problem. And she loves me to rummage around her. It doesn't bother her.

The only time she does retreat to her bedroom is at weekends when her brother is at home. Internal relationships are affected by the fact that Eric is handicapped. Although he is only at home at weekends, he seems to be present at all times. A situation that is acknowledged by Richard and Erin and becomes clear in their family plan (9.3.2. and 9.3.3.).

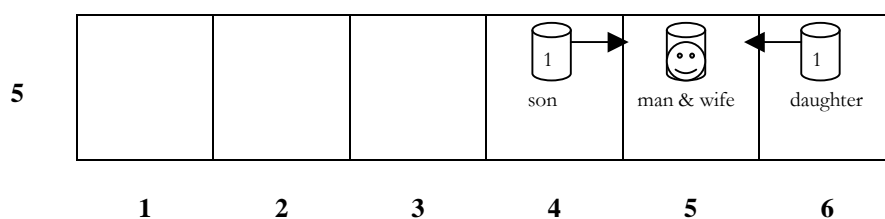
Figure 9.3.2. An excerpt of Erin's family plan.



Interviewer: Why do Eric and your parents look away?

Erin: My parents are more occupied with Eric, I guess it's normal but...

Figure 9.3.3. An excerpt of Richard's family plan.



Interviewer: Why did you place Erin and Eric like that?

Richard: Because they bicker a lot as brother and sister. They don't agree. My wife thinks that it's due to Eric's situation.

Eric himself also indicates that his relationship to Erin is a difficult one:

Interviewer: Do you agree with Erin?

Eric: No, sometimes she...

Interviewer: Do you often quarrel with her?

Eric: Yes, I do.

Interviewer: And why do you quarrel with her?

Eric: I always think she's wrong.

Interviewer: Do you often watch television together with Erin?

Eric: Yes...and then she always tells me to be quiet and stuff and she acts really annoying towards me.

Interviewer: Because you are commenting on things?

Eric: Yes, I have to be very quiet.

The ESM illustrates that Vanessa is especially occupied with Eric's needs. She thinks about him a lot during the week and at weekends. This results from the fact that Vanessa is Eric's primary care-

taker. She is the one that brings him home at weekends and takes him back to boarding-school by Monday. Therefore, it is difficult for the other family members to get connected to her. At weekends, Vanessa even co-ordinates family activities in accordance to Eric's capacities. As a result, at weekends television occupies 'family time'. Television viewing creates family time and substitutes for family activities that are too difficult for Eric:

Vanessa: I sometimes think that the television set is turned on too much.

Richard: Yeah.

Vanessa: But it's also very difficult to play board games with our son. Otherwise we would say: 'Shut off the television and lets play a board game.'
But then he can't participate so...

However, this does not mean that the family plays board games on weekday evenings when Eric is not at home. During the week, the television is frequently switched on as a background to other activities such as: reading, household tasks or working on the computer. Most of the time Vanessa watches television while Richard works at the computer. Erin normally watches television together with her parents except when she is home alone or when there is a discussion about the programme that they are going to watch. However, mostly the family is in physical connectedness. Something that is wanted very much and is greatly valued. The Bells even placed their computer according to this need:

Vanessa: We've put our computer in the living-room as a piece of furniture.
Because the person that's working on it does still belong to the family.
Not separately because that isn't pleasant anymore.

Richard: Yes, we really did that on purpose. The computer is a piece of furniture and isn't placed somewhere separately. Maybe because otherwise he won't be used all that much. Because you aren't going to sit separately.

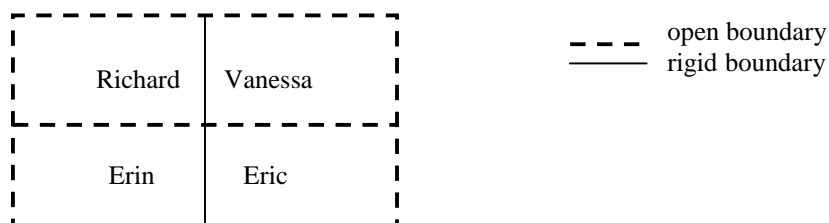
...

Vanessa: Richard doesn't watch TV all that much. He's sitting at the computer, but that means that he's present in the living-room, working at the computer.

Vanessa's preoccupation with Eric brought Erin and Richard together. Erin took over Eric's role in the father-son subsystem. Since Eric is handicapped he cannot participate in Richard's passion: soccer. Therefore, Erin accompanies her father to the soccer game. They are fans of the same team and have a season-ticket. During the ESM Richard as well as Erin often reported that they were thinking about the team's performance. On one occasion, while not in the same place together they were at the same time thinking about an important game the team had to play in the European League. Erin even uses her internet connection to visit the team's website and keep abreast of what the other teams in the first division are doing, an indication of the fact that Erin does not solely go to the soccer game to please her father. Furthermore, they share opinions about: ICT, politics, and reading. In the family interaction typology of Livingstone and Bovill they would be an outward-looking family. However, this label is only applicable to the father-daughter subsystem. Since

Eric's handicap divided the Bell family into two subsystems (figure 9.3.3.): the father-daughter subsystem and the mother-son subsystem - a division that especially emerges when Eric is at home.

Figure 9.3.4.: The Bell family's internal relationships.



Not only did this division surface during ad hoc observations but also during the FIG. Vanessa and Eric worked together to design Eric's bedroom. Richard and Erin worked together to design the other rooms. The two subsystems are divided by a rigid boundary. Furthermore, inside the marital subsystem there is a clear division. Due to Eric's handicap Vanessa decided to become a housewife. This resulted in clear role patterns. Vanessa acts out the role of a traditional housewife. She does all the household tasks like cleaning, making dinner, etc. According to Richard this follows naturally from the fact that she is a housewife. Richard manages the money and when he comes home from work he relaxes. However, with regard to Erin role patterns seem not to be applied. She is not forced to clean her room or do the dishes:

Richard: We've bought ourselves a dishwasher, so we solved that problem a few months ago. Before, I had to do the dishes sometimes. Vanessa does everything else, she doesn't work outdoors.

Interviewer: Does Erin have to clean up her bedroom?

Richard: She doesn't do a thing.

Interviewer: Do you think she should do something?

Richard: Yes, well a bit, because when she leaves home to live by herself she should be able to manage. Well, everything gets done for her.... When we force her very hard then perhaps she will clean up her room, maybe once a month. And then she throws everything on a pile. That isn't cleaning, is it?

...

Erin: They're always telling me to clean up my room, but I keep postponing it. So then my mother gets so distressed, she cleans it herself. That's when she really can't stand it anymore.

A further indication of the fact that Erin has taken over Eric's role in the father-son subsystem.

As already indicated Erin and Richard are both interested in ICT. Vanessa knows this and tries to use her technological incompetence in order to facilitate communication. This clearly annoyed Richard and Erin. However, neither Richard nor Erin wanted to be forced into the expert role. Vanessa picked up on it and decided to take a computer course. As a result, she did not depend on their expertise anymore:

Vanessa: I've started a course, it takes about five weeks, 'Word' for beginners. And I find it pretty difficult (*laughs*). Actually it might have been better to start with a 'Windows' course. I'm doing them together and there's a lot that goes wrong. But nevertheless, it's at my pace and I've learned a lot already. It comes in handy if you know it, but it's without engagement. It's not as if I've got to do it for my job or anything, but I find it very pleasant to know it. Otherwise you are typing away on the computer not knowing what you're doing. It's very interesting to see what you can do with it. But it's hard to find out at the beginning. I started the course because I wanted to do something on the computer but I didn't want to ask how something is done over and over. I would like to do this course first and then I would like to do an Internet course. The others at my course told me that's it very interesting to do such a course.

As such, the ICT course becomes a tool to cope with a certain situation. Instead of interacting with family members, Vanessa turns to the outside world.

9.3.3.2. Relationships to the outside world.

Eric is stimulated to lead a 'normal' life. As well by his parents as at school he is stimulated to use the computer:

Vanessa: Eric attends a special school. They are very busy with computers at school. Those computers have a specially adapted program. But that's hard to find. We've been searching to find it but...

Richard: He's is mentally handicapped. He's seventeen. He can't read or write. But that doesn't mean that he can't play certain games but it's hard to find games that are adapted to his capacities.

Furthermore, Richard and Vanessa stimulate him to have 'normal' friends. He is well integrated in the local horse-riding club. When he comes home at weekends he often spends some time with the friends he has made there:

Interviewer: Do you like to be at home?

Eric: Very much, yes. To be with my pals, with the youngsters, I've got lots of friends.

Interviewer: Are they all from around here?

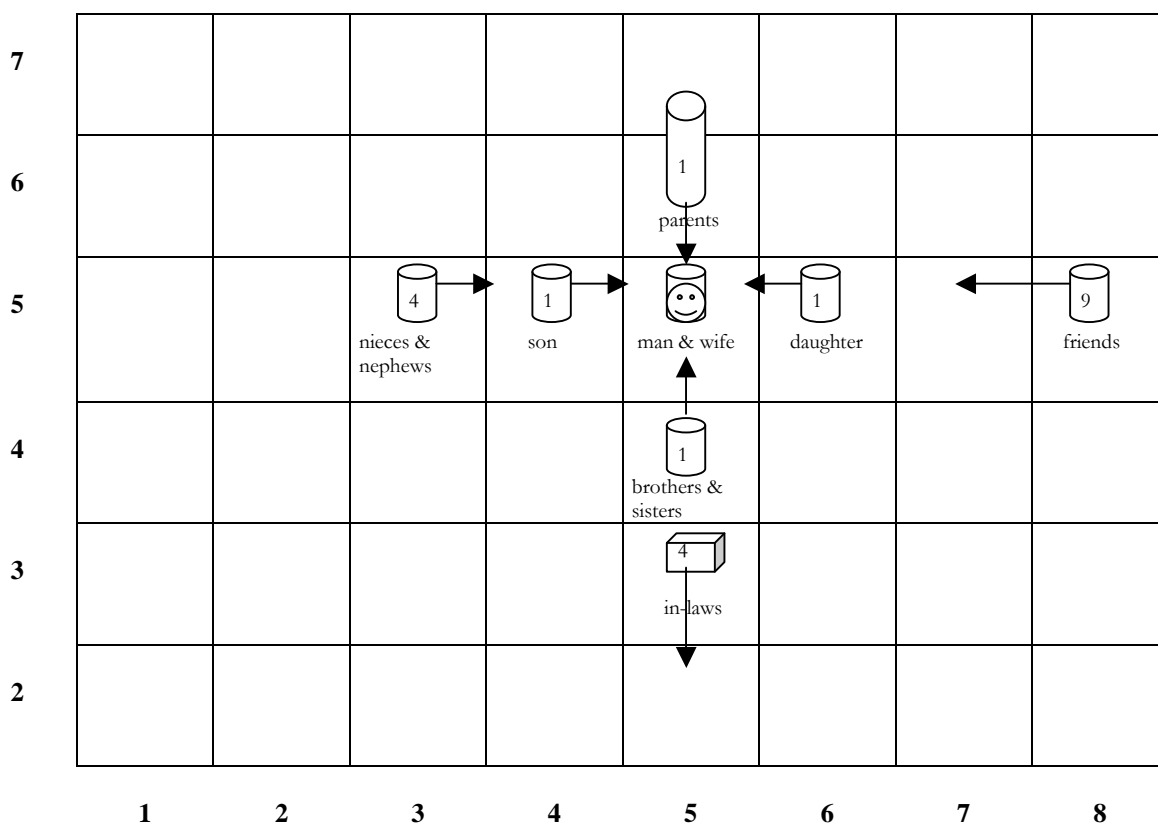
Eric: From the youth club.

Interviewer: So you go out with them?

Eric: Yes, for my birthday, when I turned sixteen years old, I had a party at the youth club and my cousin was the DJ.

Furthermore, not only he, but all the other family members are well embedded in the extended family on the father's side, as illustrated by Richard's family plan (figure 9.3.5.):

Figure 9.3.5.: An excerpt of Richard's family plan.



On Richard's family plan his parents and siblings are placed at a dyadic distance of one. Richard's family even plans special family weekends together:

Erin: We just went on a weekend together.

Interviewer: With your family on your father's side?

Erin: Yes. They also live closer to use. It's the second time we've done that.

Interviewer: So it's with everybody?

Erin: Yes, with all the grandchildren and everyone. Two of them have to come over from London. So then they have a special reason to go to Germany (*where the family weekend was held*).

They are very close physically as well as symbolical. The relationship does not end at special family weekends. In addition, every two weeks family members gather at the same sports event. While Vanessa stays at home to look after Eric, Erin and Richard go to the soccer game where they meet up with the extended family. They all have a season-ticket:

Erin: I go to the soccer game with my dad. But we have a seat with our family, aunts and uncles, we've got a compartment and that's where the family sits. We do that with my father's family. They are all soccer fanatics. My grandfather also joins us.

This close relationship is also reflected in Erin's internet use. She e-mails with her cousin and he comes to visit her and then they go on the internet together. In addition, Erin uses the internet to meet people:

Erin: Sometimes I get to know people via chat and then I'm chatting and e-mailing them for a month or so. Or I use it at school and then there are others.

However, this does not seem to lead to social isolation. She prefers to chat and surf while a friend is present in the room:

Interviewer: Do you go on the Internet by yourself?

Erin: No, with friends, that's fun. I prefer doing it with two, for example, chatting is much more fun when you're with two.

Interviewer: Why?

Erin: Because you can talk to each other. When chatting, you're talking to somebody else but actually you don't, well I don't feel like I'm actually talking to someone else. Also when I look for something on the internet, it's much more fun doing it together with a friend, and it's faster.

Erin uses the GSM in the same way. While she is accompanied by her friends, she sends messages to others. In this way she is in contact with somebody in the virtual context while at the same time being in contact with a person that is physically present. Again, an illustration of the importance of togetherness in the Bell family.

9.3.3.3. Family theme.

The members of this family agreed that there is no external locus of control. However, the Bell's do have an internal factor that controls their lives. In terms of Reiss' family paradigm, there is an internal reference point. In this case, the family does not experience itself as the central orienting point but rather one family member. Family life has moulded itself to accommodate their special son, Eric. Vanessa stayed at home and father and daughter become a separate subsystem. At weekends, activities are dependent on Eric's capacities. It has formed their lives. Erin gets less attention than her brother especially from her mother and she orients herself towards her father and her friends. Richard orients himself to his daughter and his family. Eric's handicap divides them and has trapped them into monochronic time structuring. This has become the determining factor. Vanessa indicates that Eric needs structure. He cannot handle chaos:

Vanessa: When they (*means the people at the boarding-school*) have a meeting and decide to do this and that this week, then they stick by it and do it. He really needs that, but it's difficult to attain that in a family setting. We (*indicates how normal people think*) can't say tomorrow we're going to do this and that, maybe, but not for certain. He really needs structure, clarity, clear arrangements and a person that acts correctly with him, he likes that very much. Somebody that doesn't know for himself where he stands, he doesn't like that.

Furthermore, in accordance with Reiss, they acknowledge the principle of mobile coherence meaning that to them reality changes of its own volition. As such, Vanessa indicates that it is practically impossible to reduce chaos in a family situation. As a result, during the ESM it became apparent that family members are constantly occupied structuring their everyday life, trying to

control it. Although they seem not to be aware of it, their days are planned out according to strict time schedules. This is highlighted by the fact that a couple of times a day family members run over what they are going to do.

9.4. The Abbott family.

9.4.1. Socio-demographic structure.

mother: Claire (°1960)

occupation: social worker

educational level: higher education (<4 years)

net income per month: between € 1239,77 and € 148773

father: Victor (°1959)

occupation: researcher and computer system manager

educational level: higher education (<4years)

net income per month: between € 1735,68 and € 198363

son: David (°1983)

15 years old at the beginning of data collection

17 years old by the end of the data collection

daughter: Jenna (°1986)

13 years old at the beginning of data collection

15 years old by the end of data collection

son: Alex (°1987)

12 years old at the beginning of data collection

13 years old by the end of data collection

son: Sean (°1989)

10 years old at the beginning of data collection

12 years old by the end of data collection

son: Brian (°1991)

8 years old at the beginning of data collection

10 years old by the end of data collection

The Abbott family lives in a residential area, just outside the wide ring road of a middle-sized city. Claire gets up early and works regular hours. Victor gets up later but also works regular hours. The children go to school in the city-centre.

9.4.2. ICT density.

The abbott family has the highest ICT density of our final qualitative sample (table 9.4.1.). The main computer cluster is to be found in the living-room where the multimedia PC is equipped with: a modem, a fax, and an internet connection. The main television cluster is also situated in the living-room where the colour TV is accompanied by a VCR and a game console. In addition, the

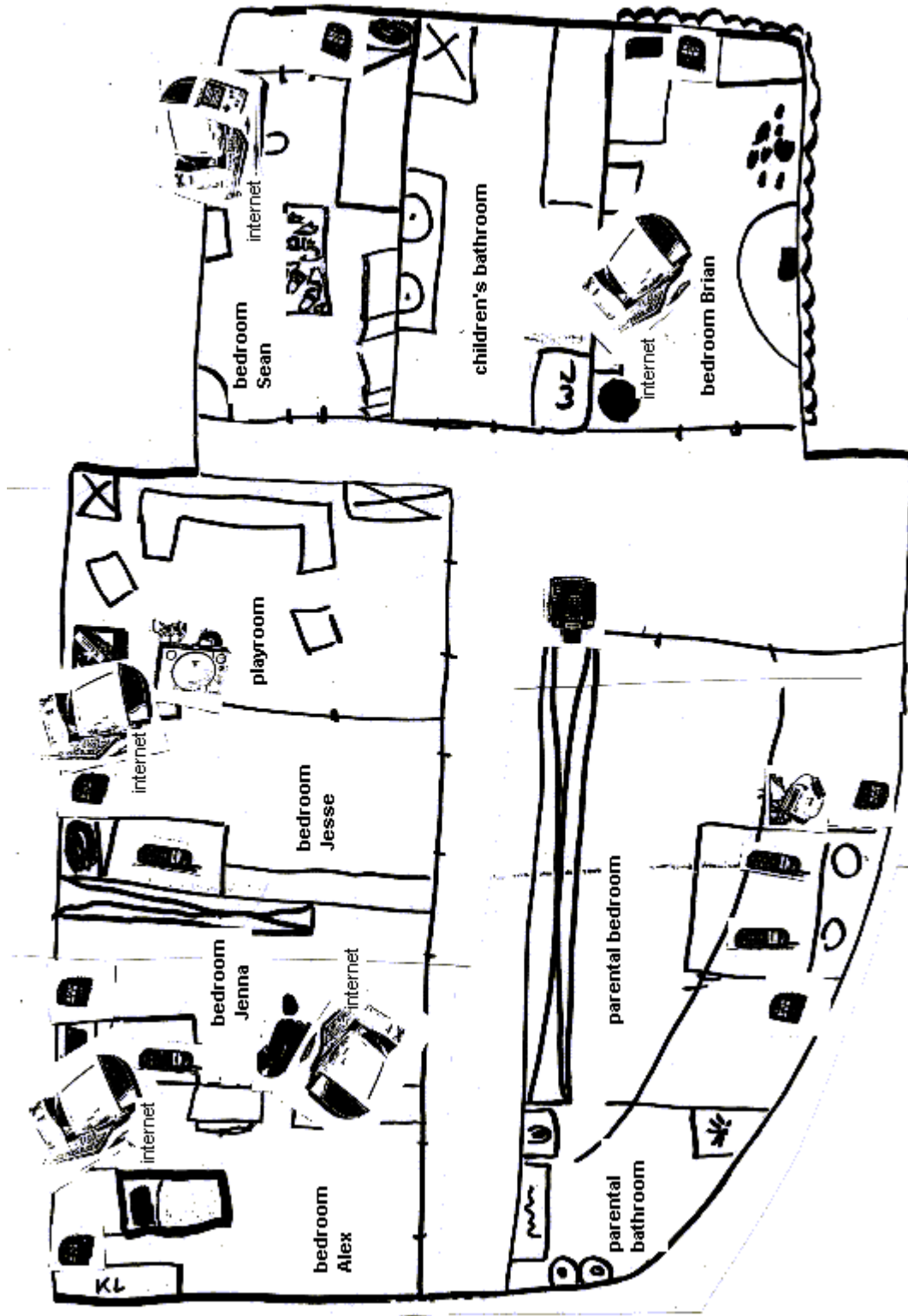
children's bedrooms are well equipped with media appliances. Jenna and David have a multimedia PC in their bedroom while the other three children have a less sophisticated PC in theirs. Furthermore, they all have some sort of audio appliance. The parental bedroom is equipped with audio appliances and a second television set.

Table 9.4.1.: Frequencies and placing of the Abbott family's media appliances at home (survey results)

media appliance	frequency	placing
connection for cable TV	1	living-room
video camera	1	
stereo	2	living-room, bedroom
radio alarm clock	4	parental bedroom, child's bedroom (3)
cassette recorder	5	parental bedroom, child's bedroom (3), veranda
CD-ROM player	3	living-room, child's bedroom (2)
cordless telephone	1	
answering machine	1	living-room
semaphone	1	
multimedia PC	3	living-room, child's bedroom (2)
PC	4	living room, child's bedroom (3)
e-mail address	3	
game console	1	
colour TV	3	living-room, parental bedroom, veranda
VCR	1	living-room
record player	1	living-room
radio	5	parental bedroom, child's bedroom (3), veranda
CD player	5	parental bedroom, child's bedroom (3), veranda
discman	1	
walkman	5	
telephone	2	living-room, parental bedroom
GSM	1	
modem	1	living-room
fax	1	living-room
internet connection	1	living-room
handheld	4	

The multimedia PC (with Internet connection) is the most important media appliance in this family. As shown by the Abbott's design of the upstairs of their ideal home (see figure 9.4.1.). The children all wanted to have a multimedia PC with an internet connection in their ideal bedroom.

Figure 9.4.1.: The Abbott's design of the upstairs of their ideal home.



However, their ideal home was not just a dream. By the end of data collection, Jenna and David, as well as Alex and Sean, had an Internet connection in their bedroom. Furthermore, the multimedia PC in the living-room was equipped with a webcam and the veranda got equipped with a multimedia PC and an internet connection.

9.4.3. A family in physical and symbolic compartmentalisation.

9.4.3.1. Internal relationships.

In the individual questionnaire all family members report that there is a lot of verbal conflict in their family. Ad hoc observations make clear that the conflict situation is especially apparent between Victor and the children. Overall, he is incapable of relating to his children. This is mainly due to his character. As Claire indicates:

Interviewer: Do you find it important to talk?

Claire: I find it important. But my husband isn't all that talkative.

The only way in which Victor communicates with his children is by shouting when they get on his nerves. These observations are confirmed by the ESM reports.

The introduction of the Internet in the family home brought this conflict situation to the surface. It is a perfect example of family dynamics whereby the internet has a homeostatic (figure 9.4.2.) as well as a morphogenetic (figure 9.4.3.) function.

Figure 9.4.2.: The homeostatic function of the internet connection.

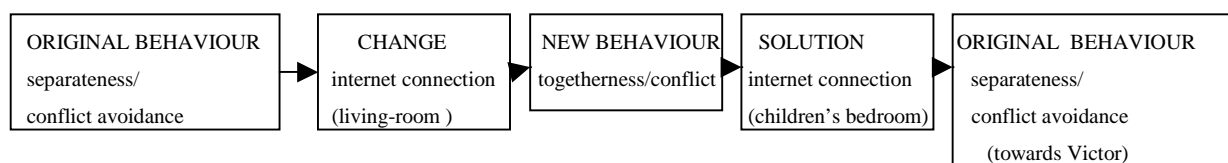
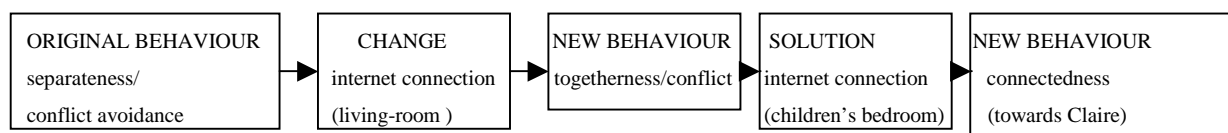


Figure 9.4.3.: The morphogenetic function of the internet connection.



Before the introduction of the Internet, family members avoided these conflict situations by engaging in physical compartmentalisation. They retreated to their bedrooms, visited friends or engaged in leisure activities outside the home. David and Jenna especially, often fled to their bedroom:

Interviewer: Where are you when you're home alone?
 Jenna: In my bedroom.
 Interviewer: And where are you when everybody is at home?
 Jenna: In my bedroom.
 ...
 Interviewer: Where are you when you're home alone?
 David: Downstairs.
 Interviewer: And where are you when everybody is at home?
 David: Upstairs.

The change occurred when the internet connection was placed in the living-room. Family members were forced together by sharing this one source of ICT. This has created quarrels over the amount of time that the multimedia PC is occupied. As a result, family relations became tenser. To get back to the original situation of conflict avoidance, Claire and Victor first tried to make up a scheme in which they assigned certain periods of 'Internet time' to their children:

Jenna: It's absolutely wonderful. I can never stop with it. I chat with this one boy and then I just can't stop. I say to him 'bye, I'm off' and five minutes later, there I am...still chatting !
 Claire: Most of the time you are chatting with ten people at the same time. When I say 'It's time to stop', then she has to say goodbye to ten people, so half-an-hour later she's still busy saying goodbye. And then the next one standing in line is getting worked up about it, saying that it's his turn.

 David: They say that we have half an hour but then you've just got time to open your programme (*means the chat programme*), say hello, and turn it off again.
 Interviewer: So you don't observe the rules?
 Claire: He doesn't agree with them.
 ...
 Jenna: Most of the quarrels are about Internet. Because we all want to get on it at the same time.
 Interviewer: You only have an internet connection in the living-room?
 Jenna: Unfortunately, yes.
 Interviewer: And how do you solve this?
 Brian: When David comes home he sits down directly at the computer and when somebody else wants to go on the computer, he starts shouting at dad. Then dad tells the person at the computer to get off.
 Claire: It's like I've said, both parents act as referees and say: 'you can go on it from that hour to that hour.'

However, despite parental mediation the conflict situation continued. Therefore, Claire started to think about another solution:

Claire: It's only getting worse. At the moment only two of them go onto the Internet. When the time comes that all five children want to do it... I don't know what to do anymore. We have to find something different. It's really unpleasant to be fighting about it all the time. It doesn't seem to work when we limit the amount of time. You can't say, 'you can go on the Internet from 8 to 8.30 p.m.' because maybe their friends can't go on the Internet at this time.
 Interviewer: How would you solve it?
 Claire : An extra internet connection.

David: (*displeased*) To my sisters bedroom, I suppose! I need it more than her.
 Claire: To all the bedrooms, of course.
 David: Oh, I see.
 Claire: You've never been discriminated against, so I don't see why it would only be in your sister's bedroom.

When I went back nine months later, David and Jenna had obtained their own internet connection in their bedroom by linking the multimedia computers in a network:

Claire: We've tried all sorts of possible arrangements. We tried to let them on the internet on turn...but that led to quarrelling...So we extended the cable (*necessary for the internet connection*). Well it already occurred that they were on the internet until 02.00 AM.

....

Claire: David and Jenna have a multimedia PC that's linked to the one downstairs, so they have an internet connection and they can fax,... Alex doesn't have one yet but we are busy equipping his multimedia PC. Recently, Sean got a multimedia PC from his uncle, so he can do some word-processing or play a game. Brian also has a PC, he got it from his aunt, but it's for playing games. So the youngest ones don't have it (*refers to internet*), but Alex is increasingly interested in it. He's sending e-mails and he's chatting...

This brought about a reorganisation in the family system. While previously the children were more involved in family life and had to share one ICT source some of them again isolated themselves from their family members. By creating physical compartmentalisation, the family returned to its original behaviour. This is especially true for Jenna:

Jenna: I arrive at home, I eat something, I drink something, and I go upstairs to my room. I put on my PC and then I'll do my homework and I chat.

...

David: Jenna is always upstairs in her room chatting on her computer, she hardly ever comes downstairs. She arrives at home and puts on the computer downstairs to be able to go on the internet and then she goes to her room.

...

Claire: Jenna takes the portable telephone to her room and while she's chatting she's on the phone with someone, it's unbelievable!

Jenna has become completely cut off from family life. During an ad-hoc observation Claire tells us that Jenna is addicted to the internet and especially to chatting. She recalls that there were occasions when the server was down and Jenna really got beside herself and started ranting and raving. David, on the other hand, does not regard himself as an addict:

David: I don't use my computer all that much. Jenna on the other hand! She's addicted to it (*refers to chat*), it's terrible!

Since David finds the computer in his bedroom inferior to the one downstairs he does not retreat to his bedroom all that much. Instead he uses the downstairs computer very often. However, this does not imply that he is an active participant in family life. By chatting and surfing on the internet he is engaged in symbolic compartmentalisation. By entering the virtual context of the chat rooms, he creates a wall between himself and family life.

By the end of the data collection the Abbotts also had an internet connection and a multimedia computer in the veranda, thereby adding to the physical compartmentalisation. It seemed as if computer technology and especially the internet would lead to a disintegration of the family system. However, Claire was very quick to understand that she could still communicate and keep in touch with her children by using their means of communication:

Interviewer: Do you chat?

Claire: Rarely, but I love to do it from time to time. *((laughs))* Sometimes I go searching for my children on the internet when I have to tell them something. Then I go onto the chat channel where they are, looking for them.

...

Interviewer: Why do you use the webcam?

Claire: David regularly comes down to put it on when I'm sitting here *(refers to the living-room)*.

Interviewer: Did he buy it?

Claire: He got it. But when they are upstairs and you want to speak to each other, it's certainly as pleasant to type to one another. Because you've got the reactions of others in between. Instead of telephoning somebody, it's easier like that. We regularly use the webcam. When it's on and the TV is on, you can see it upstairs, the living-room.

As such, the Internet created a new habitus for Claire and the children. Victor, on the other hand, does not want to comply with his children's forms of communication. Instead of getting in touch with them, he sabotages them. As such, he hopes to get back to a more social family life:

Alex: Sometimes dad takes away the cable. Because to get on the internet you need this cable and sometimes he takes it away if he doesn't want us on it.

...

Victor: The only way to intervene is by taking away the cable. It's no use securing it with a password because David hacks it anyway.

He regards the internet as a temptation that takes his children away from family life and gets worked up about it:

Victor: Alex is going on about having his own internet connection in his bedroom. The rooms are prepared for that, the PC is ready to be connected. And then he's also going to disappear to his room, another one that we're not going to see anymore.

This is supported by the ESM reports. They reveal that we caught the family in the middle of an internal crisis. On separate occasions Claire and Victor reported thinking about the situation at home and the problems in the family. While David at one time reports that he was thinking about the fact that he hates his father.

However, physical compartmentalisation does not seem to be due only to the internet. The television, for example, also seems to be a means of separation. The Abbotts have three television sets: one on the veranda, one in the living-room, and one in the parental bedroom. The one in the

living-room is mostly watched by the children. The one on the veranda is mostly watched by Victor on his own. This ICT mix creates extra opportunities for physical compartmentalisation:

Claire: It's like I've said earlier on: dinner is over, someone goes to watch TV, another one watches the news on the other set, a third one puts on a CD, and someone sits behind the computer and the conversation is over.

However, while these media appliances contribute to compartmentalisation they can also be the one item that assures some family time together. All the children and Claire have a busy agenda when it comes to leisure activities. This adds to the physical compartmentalisation of family members:

Interviewer: Is there one day that you're at home together?

Claire: It isn't Wednesday afternoon?

Brian: No, not Wednesday afternoon!

Claire: When would we be at home together on a Wednesday afternoon?

David: In the evening?

Claire: In the evening after he's been to his hockey training, around 8 p.m.

Brian: 8 p.m.? I'm already in my bed then!!

Jenna: Sunday.

Claire: Yes, it will be on Sunday since they stopped going to the youth movement on Sunday.

All family members report that there is no 'family time' whatsoever. Furthermore, they indicate that the only time they do spend together is when they watch their favourite TV programme. It is a teen soap named 'Dawson's Creek'. It has become a family ritual, and to Claire in particular this half hour of family television viewing was the way of keeping the family together. The importance of this soap for family life became apparent during the deprivation part of the ESM. Although the majority of family members chose not to use the computer during the two weeks of deprivation, David and Jenna decided not to use the television. This came as big disappointment to Claire who hoped that for once they could be on the same side. The analysis of the deprivation part of the ESM indicates that the family did not see Jenna for two weeks since she did not come down to watch 'Dawson's Creek' together with her family members. She spent all her time in her bedroom chatting to her friends and surfing on the internet.

However, we must note that physical as well as symbolic compartmentalisation can also be a feature of the life-cycle stage in which the family finds itself. One of the important factors in the Abbott family is a clash between generations. David and Jenna are teenagers in search of more privacy. It is normal for them to separate themselves from family life since they have their own interests. Again it is Claire who acknowledges this:

Claire: We talk more because of the computer. It also has to do with their age. Especially with regard to the two eldest ones (*refers to David and Jenna*). Personally I think that we talk more...because we have shared interests. And I'm not so old fashioned that I don't have anything that interests them and vice versa. We do have subjects to talk about.

At the same time the family is going through two other life cycle stages. Alex is what his mother calls a typical 'middle child'. He is too young for David and Jenna and too old for Sean and Brian. Alex states this as follows:

Alex: I do agree with Jenna and moderately with the others. If they feel like it...

Since the family does not have enough bedrooms, Alex has to share his bedroom with Brian. This creates a privacy problem for him. As a solution he created a symbolic compartmentalisation in the bedroom:

Brian: I would rather have my own room. Because when you want to do something in your room and you enter his part, then you get hit and all.

Interviewer: Is the room divided in two?

Brian: Yes, but there's no wall between the two parts. Alex started it, he assigned a half to each of us. Alex then said: 'You can't trespass there'. Sometimes we are allowed to if he doesn't say anything, otherwise we aren't.

Sean and Brian, the two youngest ones, are good friends. They often play on the playstation together. As such, they create their own space. But this has got a little bit out of hand:

Victor: They aren't allowed to go on the playstation before 9 a.m. Because they turned it into a competition to get up as early as possible. Like Sean, who got up by 7 a.m., didn't even eat breakfast first, and went straight on the playstation.

9.4.3.2. Relationships with the outside world.

All family members indicate, in their individual questionnaire, that their family is high on family sociability. This is supported by the fact that they all have an extensive list of friends. However, this does not mean the family as a whole but rather the individual family members. They are all separately embedded in different organisations. The children often entertain their friends at home and often go to visit their friends. As such, this family sociability adds to the physical compartmentalisation. This is clearly illustrated by Jenna's family plan. Remarkable is that her brothers and her father are looking away from her:

Interviewer: Your brothers are looking away from you. Why is that?

Jenna: Because they only talk to me when they need me. Otherwise, I'm in my bedroom.

Interviewer: So you don't have a lot of contact with them?

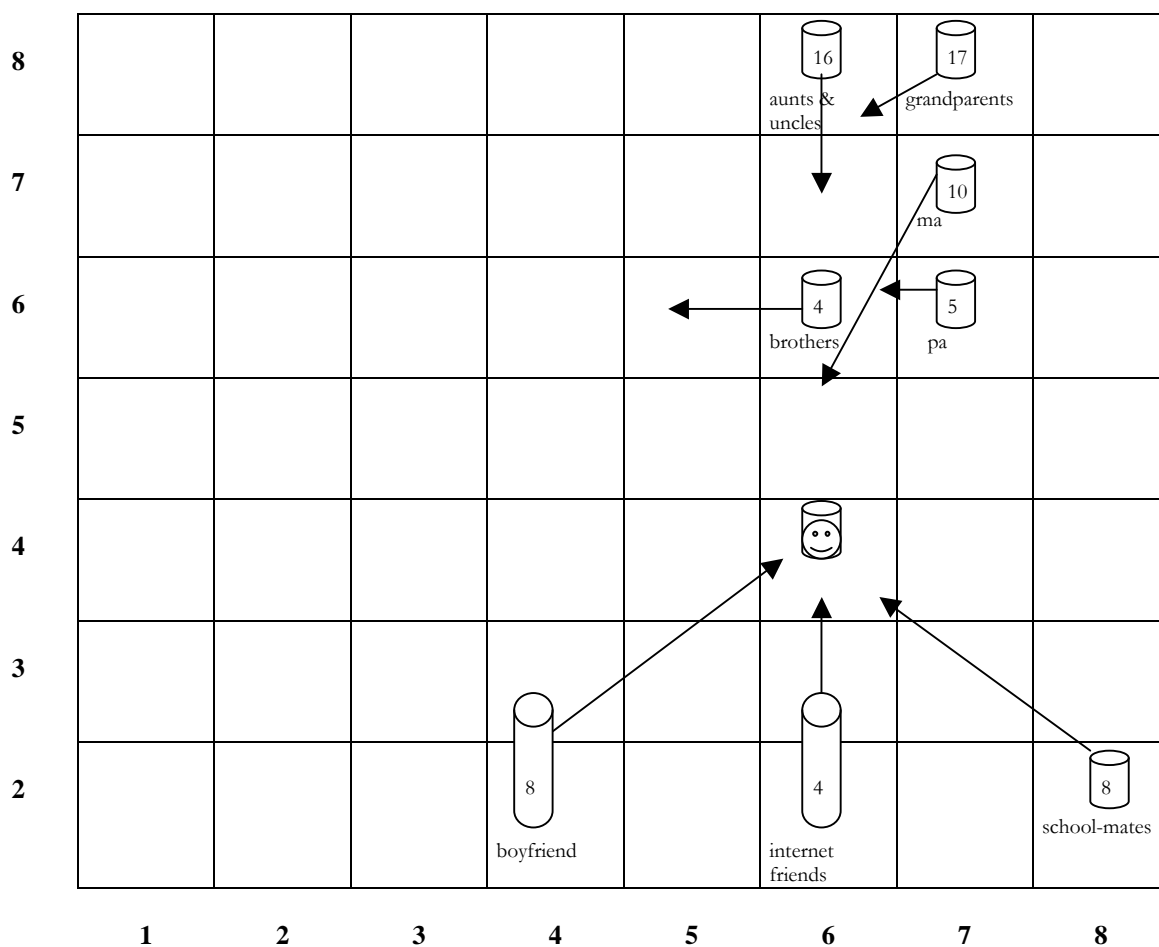
Jenna: No

Interviewer: Your mother is looking at you and your father is looking away from you. Why is that?

Jenna: Because I don't have a good relationship with him. Well, we don't get along. But I do get along with my mother.

As shown by her family plan, Jenna orientates herself to the outside world by means of the internet. Jenna heightened her boyfriend and her internet friends. Jenna met her boyfriend via a chatline and they now regularly visit each other. Furthermore, the people in the chatbox meet each other several times a year. Each time in a different Belgian city.

Figure 9.4.4.: An excerpt of Jenna's family plan.



The internet friends are all looking at her. To her, they have a very special meaning:

Interviewer: Those people that you chat with, are they total strangers?

Jenna: Well, now they've become... well we regard each other as...we say brother and sister to each other.

This excerpt and her family plan make clear that Jenna is more engaged in this 'Internet family system' than in her 'biological family system'. Due to the internet she created another family system which for her is an alternative to the 'biological' family system. This clearly indicates the problems one might have in defining the family system and defining where its boundaries lie. Here the concept of 'family of choice' applies. It is a family that is in no way restricted by age or gender. Jenna explains that her family of choice also consists of people that are much older or younger than herself. Her excessive chat behaviour can be interpreted as a way of coping with the crisis situation in her 'biological family'. This explains why she is beside herself when the connection is broken. To her it is the contact with her family that gets broken, which also explains why she is often furious with her dad since he often pulls out the cable connection.

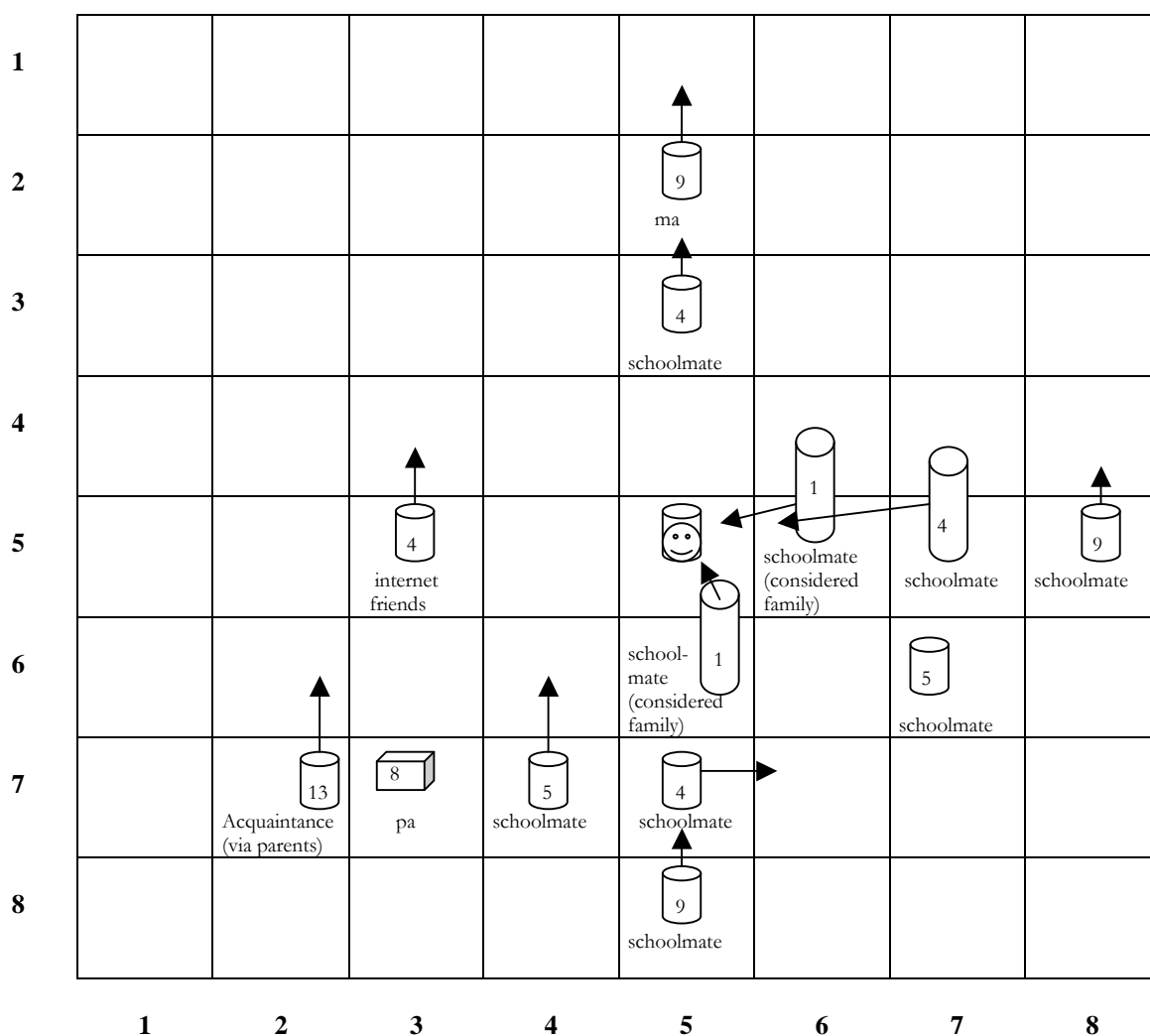
David's family plan (see figure 9.4.5.) also reveals a disconnection from his biological family. He does not even put his brothers and sister on it:

Interviewer: Why aren't your brothers and sister on the plan?

David: I don't know, actually, I'm not really involved with them.

Instead he puts two schoolmates closest to him and reports that he considers them to be family. Again the Internet plays an important role in the maintenance of the family of choice. David uses the internet to keep in contact with his schoolmates.

Figure 9.4.5.: An excerpt of David's family plan.



For David and Jenna the internet creates an ideal opportunity to get in contact with their family of choice. However, while Jenna's 'family of choice' extends beyond physical and generational boundaries. David's 'family of choice' lies within physical and generational boundaries.

9.4.3.3. Family theme.

The different family members report that they do not believe in an external locus of control. They believe that their destiny is in their own hands. However, this does not make the family a homogenous collective. Rather it seems that everybody lives for his or her self. The family theme is not 'all for one and one for all' but rather 'I come first'. 'Be sure to have what you want first.' Placing them along the lines of Reiss' dimensions of the family paradigm, the family believes in particular integration whereby individual experience is inaccessible to the other family members. Jenna's and David's internet use strengthens this point of view. Their experiences in the virtual context are inaccessible to other family members.

What is very apparent is that the family members in no way regard their family as the ideal family. The key statement seems to be: 'We are satisfied with the way we live'. Family members find this statement to be very untrue or fairly untrue.

Separateness and connectedness construct family life. In the Abbott family the emphasis lies on separateness. However, this does not imply that the family is not functional. In this case separateness is an essential part of family functioning as became apparent with the introduction of the internet in the family home. Therefore, no actions are being taken against physical and symbolic compartmentalisation. This is especially apparent with regard to Jenna's chat behaviour. Although Victor and Claire complain about it, they do not take action against it. If they were to take action they know that they would see that their daughter is totally estranged from her family; a situation that is less desirable than the excessive chat behaviour since it can create a crisis in the family system.

9.5. The Green family.

9.5.1. Socio-demographic structure.

mother: Julia (°1957)

occupation: teacher

educational level: higher education (<4years)

net income per month: between € 991,82 and € 123977

father: Steven (°1954)

occupation: co-ordinator of international programs for a major bank

educational level: university

net income per month: not known

son: Duncan (°1982)

17 years old at the beginning of data collection

18 years old by the end of the data collection

daughter: Katie (°1983)

15 years old at the beginning of data collection

17 years old by the end of the data collection

daughter: Chloe (°1985)

13 years old at the beginning of data collection

15 years old by the end of the data collection

The Green family lives in a small town that is divided in two by a canal. Their house is situated in the main street of the town. Duncan and Chloe go to school nearby. By the end of data collection, Duncan had gone to Brussels to study computer science. Julia teaches in a school nearby and Steven goes to work in Brussels in higher education. Katie attends a 'Steiner' school. This is a school with its own educational philosophy. The starting point of this educational system is children's own interests. As a result a school day is not strictly divided into different lessons. Rather they work around themes, named projects, that interest the children. When a friend of Katie's went to this school, Katie followed her. As a result, she goes to school in a town that is situated 40 kilometres away.

9.5.2. ICT density.

There are three important ICT clusters in the family home: the computer cluster that is situated in the living-room, the portable telephone, and the portable radio-CD-cassette player:

Steven: We've got one that uses the phone a lot (*refers to Chloe*), another one that listens to music (*refers to Julia*), someone that plays music herself (*refers to Katie*) and one that sits behind the computer for most of the time (*refers to Duncan*).

While the computer and the telephone are only used intensively by a few family members, the portable radio-CD-cassette player is shared by all of them:

Duncan: We've got a portable 'stereo'. That moves around from one room to the next: the bathroom, my sisters' room or my room, it changes.

Although Duncan has a computer in his bedroom, the multimedia computer in the living-room is regarded as the main computer. This is due to the fact that it is equipped with an internet connection and the latest state-of-the-art software. In our qualitative sample, the Green family is the family with the largest number of software applications.

Table 9.5.1.: Frequencies and placing of the Green family's media appliances at home (survey results)

media appliance	Frequency	placing
satellite dish	1	
video camera	1	
stereo	2	living-room, child's bedroom
radio alarm clock	3	parental bedroom, child's bedroom (2)
cassette recorder	3	living-room, child's bedroom, portable
CD-ROM player	2	child's bedroom, living-room
cordless telephone	1	
semaphone	1	
multimedia PC	2	child's bedroom, living-room
PC	1	child's bedroom
e-mail address	3	
game console	1	
colour TV	1	living-room
VCR	1	living-room
record player	1	living-room
radio	3	living-room, child's bedroom, portable
CD player	2	living-room, child's bedroom
discman	1	
walkman	1	
modem	1	living-room
internet connection	1	living-room
handheld	1	

By the end of data-collection the multimedia PC in the living-room was equipped with a CD-writer and Duncan had bought himself a GSM and a palmtop.

9.5.3. A socially embedded family.

9.5.3.1. Internal relationships.

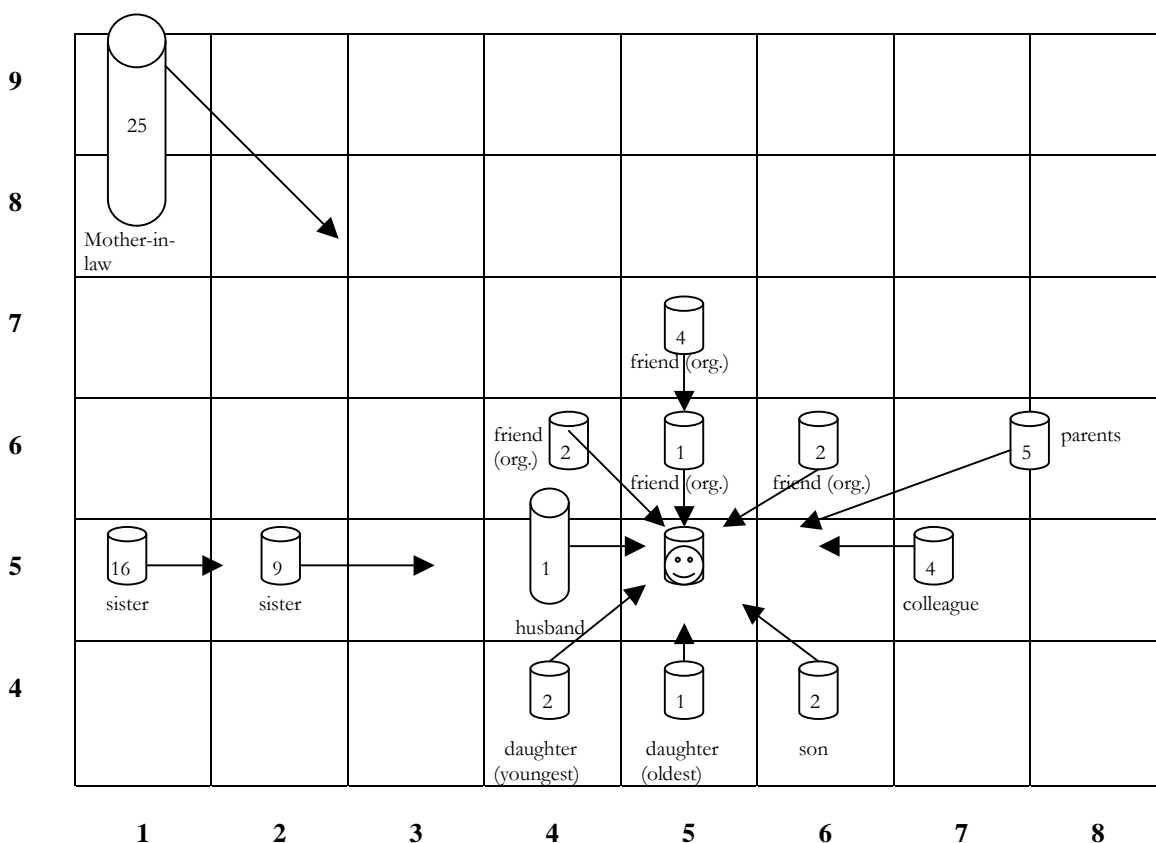
Internal relationships are strongly affected by an external element: Steven's mother. She is very dominant and wants to control Steven's life which really annoys Julia. According to Julia, Steven's mother does this because he is the only child that she has left (her other son committed suicide).

Steven's family background creates disturbances in the internal relationships. As Julia argues, Steven took over his mother's dominance and applies it to his own household:

Julia: There are persons that try to influence our family, but they fail at it. My mother-in-law, for example, she has been trying for twenty years...(laughs), but now I've seen through it... I've got to stop her. I've just let her get away with it and unconsciously she had an influence... on the stupidest things first... about the children or in practical matters... but now this is clearly different. Although she's a very dominant person. Unconsciously Steven has taken over that system. But to a lesser extent. But if you look at situations in which decisions have to be taken, I think that Steven, well ... (laughs). It's changing but up until now it has been like that.

This also becomes clear through Julia's perception of internal and external power relations (figure 9.5.1.). Despite the fact that her mother-in-law is at a dyadic distance of 25, she's tripled in size. Steven is doubled in size.

Figure 9.5.1.: Julia's family plan.



Steven acknowledges that his mother perhaps interferes too much but he does not regard this as problematic. However, he does confirm Julia's perception of his dominance:

Steven: I always take the decisions about major issues, but Julia takes the decisions with regard to our daily needs.

Steven takes the important decisions while Julia is in charge of trivial everyday questions such as: What shall we have for dinner. She is put into a subordinate position. However, she tried to arm herself against this situation by taking an assertivity course in order to become more self-confident and to be able to communicate her needs. As a result, she reduced her working hours and, in order to have more time to herself, hired a cleaning lady. However, Steven's dominance persists, especially when it comes to ICT. He is the one that decides which ICT are purchased:

Interviewer: Did you discuss the purchase of the satellite dish?

Julia: No, my husband decided it for himself. He wanted to have it. But after a while, with the children...

The previous excerpt already indicates the onset of a lively discussion in the family about the satellite dish. Steven legitimates his choice by saying that it enriches every family member's world view. However, he himself makes clear that he wanted it to watch the NBA competition:

Katie: He finds that the future lies with the satellite dish. But if we visit our grandmother, he's always watching VTM (*Flemish commercial channel*), and he finds it interesting. He finds the satellite much more interesting because it gives you an open view on the world and stuff like that.

...

Steven: We only have VRT and RTBF (*Belgian public channels*) but I have a satellite dish. I also receive the rest of the world. And that causes discord because they (*refers to Katie and Chloe*) want to have VTM and VT4 (*Flemish commercial channels*). I find the current selection broad enough and when they watch a programme on the satellite they are obliged to watch it in another language and they get another view of the world than the one that they serve you up. So I choose what I watch and not just that what's offered by the cable company.

Interviewer: So why did you opt for satellite instead of cable?

Steven: Via the satellite I can watch American basketball (*hilarious reactions from the other family members*) and all the other things. VRT was enough for me I didn't want to pay for programmes that don't interest me.

It is clear that, with regard to ICT, Steven claims the expert function. However, he does not mind sharing this role with his son. On several occasions during the family interview he proudly indicates how skilled his son is with this new technology. Julia reports that the two of them are bonded by their mutual interest in computer technology:

Julia: Duncan and Steven are on it (*refers to the computer*) a lot and they also collect and read magazines about it. And then I hear them talking about it. Duncan will also have a bit of an influence, for example, he would say: 'Lets take an internet connection via cable'. That's a discussion they have. It hasn't happened yet but he reckons that it's better or cheaper, I don't know what it's all about. So they are busy with that...maybe that's typical of boys, I don't know (*laughs*). However, it's like that with us.

Furthermore, during the family interview, Steven constantly interrupts other family members to display his technological know-how, especially to note that they have different sophisticated software packages for their multimedia PC:

Julia: It's always like that. It was like that when they were younger and wanted to have a game boy. So he (*refers to Duncan*) got a game boy when the hype was almost over. And then they were constantly playing on it...

Steven: We have 'Technomake'. So he (*refers to Duncan*) can make his own music and we have a 'groovebox' accompanying it.

Julia: Well he (*refers to Duncan*) uses the computer a lot. For example, they had this school assignment to make something with a video footage. So then he produces it.

Steven: We also have video. So a video camera and our computer is able to process video footage. Because you can create things with a mixing console.

However, the large number of software applications that are installed on the multimedia PC create an overload, causing the computer to crash:

Steven: We have problems with our computer. We have problems starting up certain applications. But perhaps this will change now.

Interviewer: Are you going to buy a new one?

Steven: No no we are going to delete everything!

Interviewer: Delete everything?

Steven: Format C.

Interviewer: So everything goes?

Steven: No, the hard disk is divided in two. So only the part where the programmes are will be formatted so that will go. Hopefully it will be alright so that the other data that are on the other part of the hard disk, are kept. Because the CD-writer didn't work.

Julia: Actually, It seems to me that there are more times that the computer doesn't work properly then times that he does work properly.

Steven: But it's like that everywhere.

Julia: Yes, but I find it strange...It's like this, when I pass by the computer I hear someone swearing.

This adds to Julia's computer scepticism. During ad hoc observations and during the interviews Julia frequently points out that this new technology has disadvantages. She is especially worried about Duncan's computer behaviour:

Julia: OK, he can do things on it that amaze me but it troubles me that he's so attached to it. It's not good to get attached to something that easily. I don't like extremes.

According to Steven, Julia regards the computer as a 'nasty machine'. She herself states that she is not experienced with ICT. She is afraid of it and gives Steven the opportunity to act out his dominant expert role:

Julia: I'm not technically competent. I know he's good at it. He finds everything out and looks for the best quality and a good price. So, I leave it totally up to him. I don't know the first thing about it. So he decides whether to have this or that, but I don't mind about that. However, there has to be a limit. If he says: 'maybe we could have that or that for the computer...' I try to keep a balance.

The assertivity course helped Julia to have the courage to make some time to herself. However, it did not decrease Steven's dominant position. This becomes especially clear when Julia complains

about Steven's excessive computer use. She finds it very disappointing that Steven is on the computer until late at night. As a result, Julia experiences the multimedia computer, and in particular the internet, as disruptive to family life:

Julia: He's on it for hours on end. OK he does stuff on it but you should be able to do without the computer. And he loses his attention. When he's on it for hours on end, and you say something to him, he's not present. I find it harmful.

...

Julia: I think the computer changed a lot.

Interviewer: In what way?

Julia: I've almost become a computer widow (*laughs very hard*).

Steven: (*laughs*) Yes, yes.

Interviewer: But he's sitting in the same room?

Julia: (*laughs*) Yes, but if that has to be the standard. (*in a normal tone of voice*) When he's at home and he's on the computer yeah well... that's very hard, in the evening.

However, Julia does not react against it. She does not tackle the problem in a direct way. Instead, she tries to downplay the excessive computer behaviour by comparing it to what happened to other appliances that were brought into the family:

Julia: I'm under the impression – just like with the video - which they use an appliance intensively when it's new but after a while they lose interest and use it less.

However, by the end of data collection she started realising that this perception might prove to be false:

Julia: Maybe it's because it's new. It has always been like that, when something is new...just like the VCR. But now...

Julia is supported, in her opinions about ICT, by Katie:

Julia: Katie is anti-media appliances. I think she's got that from me. Well, not really anti but negative. She finds everything else much more important. She finds it important to talk to each other or she's playing the piano, she does that very often.

As such, the computer technology has created two subsystems in the Green family (figure 9.5.2.). An ICT sub-system consisting of Duncan and Steven that transcends generational boundaries. They are highly interested in ICT and regard it as an advancement. Julia and Katie, on the other hand, regard ICT as harmful to family life. It is seen as a conversation killer.

Figure 9.5.2.: The Green family's internal relationships based on ICT.

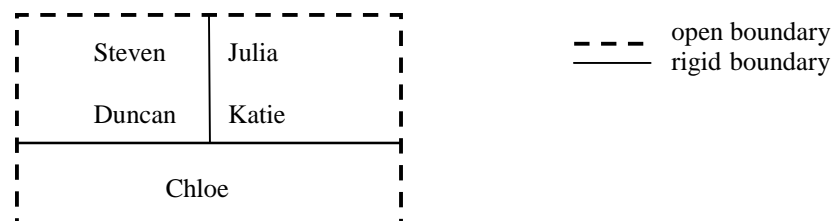
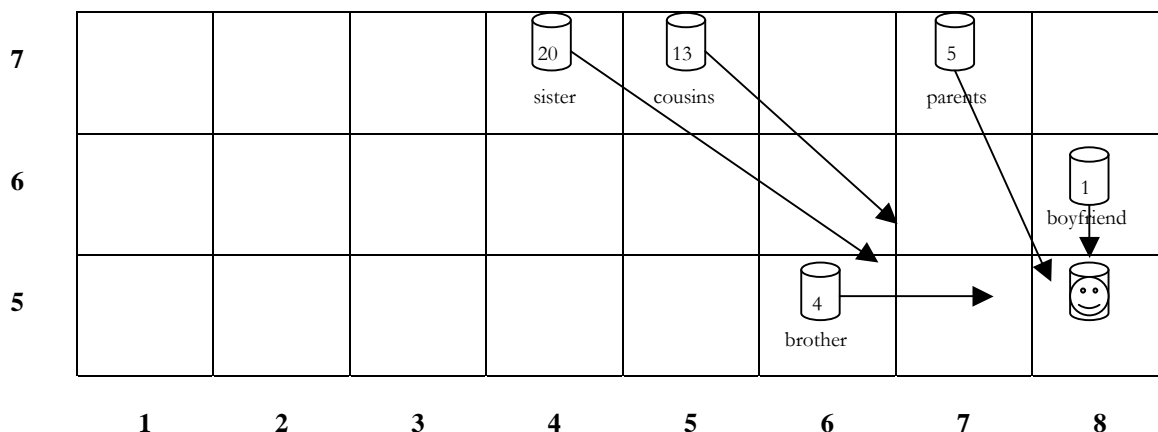


Figure 9.5.2. also indicates that, with regard to ICT, a separate subsystem is formed by Chloe. She is an excessive telephone user. She is constantly on the phone to her friends. For example, during the first in-depth interview she got phoned three times. Steven has already installed a special service for her so that she can talk with three people at a time. Since the family can only connect to the internet via a telephone modem this causes conflict with other family members when they want to use the internet. However, instead of getting her to cut down on the phone calls Julia and Steven are thinking about an alternative solution. They want to install a second telephone line for Chloe. Not only does this solve the conflict between internet and telephone, it will also be used to monitor Chloe's telephone use.

However, apart from the ICT subsystems, Chloe feels closer to Duncan than to Katie. This becomes clear when Chloe talks about her family plan (see figure 9.5.3.).

Figure 9.5.3.: An excerpt of Chloe's family plan.

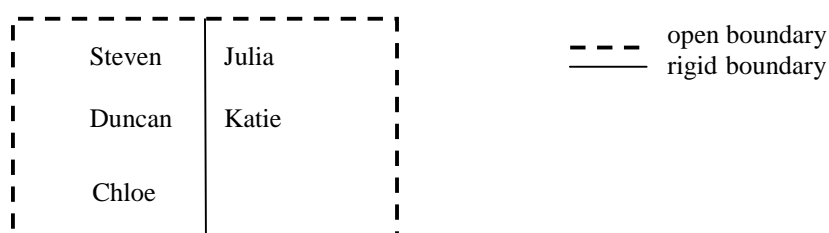


Interviewer: Why did you place Duncan closer to you than Katie?

Chloe: Katie doesn't agree with my friends and Duncan does because he knows them from school. I do agree with Katie, but she isn't fond of my friends.

As such, inside the family system another division is created (figure 9.5.4.), a division that is based on intellectual and cultural interests. Julia and Katie are interested in spiritualism and art. The others are more rationalistically oriented.

Figure 9.5.4.: The Green family's internal relationships based on intellectual and cultural interests.



These incompatible interests proved to be a problem for the planning of the Easter holiday:

Steven: When it will be the Easter holidays, the three of us (*refers to himself, Chloe, and Duncan*) love to go skiing but they don't (*refers to Julia and Katie*). So I suggest that they go for a walk while we ski.

Katie and Julia did not approve of Steven's solution. Instead of having a family holiday they proposed going on separate holidays. Together they proved to be strong enough to carry their opinion:

Steven: We (*refers to himself, Chloe, and Duncan*) went skiing and the others (*refers to Julia and Katie*) went to Turkey. We both filmed our holiday and afterwards we looked at each others video.

The excerpt indicates that due to the video footage these separate holidays became shared experiences - a token that they are interested in each others activities. This is confirmed by the family members in their individual questionnaires. They indicate that there is still family time. Furthermore, they report that family members attend the activities of other family members. For example, Julia, Steven, and Katie are members of the same choir. When they have a performance the whole family attends it.

Although Steven dominates the decision making process, all family members indicate that their family is conversation oriented. Steven's domination has more to do with finding the most profitable solution a character trait which the other family members find amusing. However, when other family members have well-argued suggestions he will take them into consideration and in some cases he will follow their suggestions - for example, when the question arose of how they would furnish their attic: Steven wanted to turn it into a room for himself; Duncan, however, stated why he wanted the room. Steven then admits that he tends to give the attic to Duncan. However, this still implies a hierarchy. Steven manages the resources and the others have to give arguments for why they want to make use of certain resources. This leads to lots of animated family discussions, leading family members to indicate, in their individual questionnaire, that their family is high on expressiveness and high on verbal conflict. Clearly, in this family, verbal conflict does not have a negative connotation. It is a sort of bickering that strengthens the family and gives them a feeling of connectedness.

9.5.3.2. Relationships to the outside world.

The Green family is very well embedded in an environment which consists of three communities: the local community, the Christian community, and the extended family. First of all, their embeddedness and concern for the local community is an aspect that surfaced in the discussion

about the satellite dish. Several family members wanted to have a cable connection to be able to watch the regional channel in order to be informed about local events:

Julia: ...And I would like to have it, cable, for the regional channels. I find it interesting because you stay informed about feasts and other things in your neighbourhood. But on the other hand, we don't watch it that much. So perhaps it will happen, the entrance of the cable but of course if certain channels are added it becomes a bigger problem.

Steven: I know that they are going to reorganise the cable. So then they are going to tell you: 'Look this is what we're offering, that's the basis, and that is what you're gonna pay for it.' But I'm not... well, it depends, if they would only offer regional channels, just a certain type of channels. Yes, then I would sign up because that is what you miss the most. It happens closer to you than everything else. That's important.

Furthermore, the Green family is well integrated into the Christian community. The whole family goes to church every Sunday and Steven, Julia, and Katie sing in a church choir. Katie and Chloe are also acolytes. The girls seem to be ashamed about it. Being a Catholic is not really 'cool' in a teenage context. As a result, straight away they downplay their active participation in the Catholic Church. They give the impression that they only participate because of the friendships they formed at the church:

Katie: I've put Andrew on my list. That's the priest, but he's OK.

...

Katie: (*about being an acolyte*) It's once a month, but actually I don't really like it. But I do it because the group is great, because this year we're going to Rome. We have a splendid group and we're also going away for the weekend next week.

...

Chloe: Actually I don't like being an acolyte but it's with this group of friends.

However, certainly in Katie's case it is clear that she really feels at home in the values and surroundings that religion provides for her.

The third community, in which the family is embedded, is Julia's family. They practically all live in the same town. There are even brothers and sisters that live in a street around the corner. The Greens have a good relationship with them. They see some of them more than twice a week.

In addition, due to ICT, new relationships outside the family system are being formed. This is especially true for Steven and Duncan. For them, the computer created a topic to talk about:

Julia: After a while they seek each other out. Not only inside the family but also outside it. It's impossible for my husband to go out without meeting and talking to someone that is interested in computers. He looks for it. And then they start talking about things that I don't know anything about. But I know: 'They are computer freaks'.

Again, Julia is sceptical about the internet:

- Steven: In the subway they gave me a free paper and I've read that the internet is a social medium.
- Julia: Yes, I've heard about that.
- Steven: Actually it's true because you're anonymous and it's easier to say something to a machine.
- Julia: But that also implies that normal contact dilutes when people are really into it. Because then you can't do anything else. I'm not in favour of that. I tremble at the thought. Also with regard to the children. I see this at school.
- Interviewer: They almost all have a computer at home?
- Julia: Of course, that's progress. But I don't know whether the real social contact...I've got my doubts about it.
- Steven: It's a different form.
- Julia: Yes, for example on the one hand you can talk to someone from the other end of the world, but on the other hand you don't know anything about your neighbour.
- Steven: It isn't the same as sitting together by candlelight, the direct contact happens via, via.
- Julia: But to what extend is this contact direct? They can fool around with you. So to what extend is it real? Well that will be the perpetual discussion in our family.
- Steven: There are even people that met someone else via the internet, someone from America for example.
- Julia: Yes, but there have also been murders via the internet. So that's the reverse. Our neighbour is also an internet freak and one evening he phones us: 'Is my son at your place?'. And I say to him: 'No, he isn't here anymore. He's been here but he already went home.' What happened? He had been so occupied with his computer that when his son came back home and said to him: 'Dad, I'm going to bed' He didn't even answer him. The son was already sleeping for two hours and dad calls us to ask where he is! Those are things that happen.

The statement indicates that both Steven and Julia find social embeddedness important. However, they differ in their perception of social contact. Julia believes that new ICT such as the Internet will be a danger to social contact. Steven, on the other hand, is very optimistic and proposes a scenario where you have mediated social contact. Steven perceives this as being as meaningful as face-to-face social contact.

9.5.3.3. Family theme.

The Green's family theme stems from their religious background. Because of this background, in line with Reiss' perception of the family paradigm, they are a family that believes in universal integration. Expressing the belief that family members' experiences are accessible through empathy. However, they extend this notion to their contacts outside the family system. This is externalised in values such as: sharing things and taking responsibility for others. Furthermore, resources need to be spent and managed for the benefit of the whole family. ICT are often used as such:

- Steven: They can say what they want and then I start thinking about the needs: is it also useful for something else? Or can everyone enjoy it? When it is properly supported and justified, it's purchased.

Interviewer: I've heard that there's a discussion inside the family about an Internet connection via the cable?

Steven: Yes, I listen to them, I take it into account, but in the meanwhile I'm investigating other possibilities with regard to ISDN, looking at what's interesting or less interesting from an economic point of view. For example, Duncan wants an internet connection via the cable to download music. That's one-sided and not useful for something else. The others would like it because the telephone line will no longer be occupied. OK that's so via a cable connection. But I'm looking for a compromise, which means a faster internet connection and a separate telephone line. I look around to see if I can find a way to do this. Because downloading music is not weighty enough (*laughs*).

...

Julia: Duncan is the specialist at school. If there's something that needs to be looked up, he will do it, he applies for it. For example, for their English class they had to review a song. So he and some other boy said: 'We will put those songs on a CD'. We have a CD-writer. So they've made a CD for each student with all the favourite songs of the students. He's always into such things. The girls (*refers to Katie and Chloe*) are going on a weekend and they have to make up a music quiz. So he (*refers to Duncan*) will download the music for them.

All family members demonstrate their responsibility towards society by participating in different organisations. But as much as the family theme is about being responsible towards society, it is also about being a responsible person:

Duncan: I would like to study computer science in Brussels. But I won't rent a room there, because I think that I would party too much. I'm allowed to rent a room but I know myself. I hardly do anything now so then I wouldn't do anything at all.

The following statements indicate how family functioning thrives on this family theme. Instead of forbidding certain activities, the parents find alternative solutions in order to get their children to act responsibly:

Julia: (*about Chloe's telephone habits*) I proposed to her to go to the phone booth at the corner of the street and phone from there. In order to give her an idea of what the costs of one telephone call are. She has already done that but the only measure that helps right now is cutting her allowance.

Or in other situations:

Julia: (*about household tasks*) I've tried to make up a plan together with them. Letting them note down what has to be done around the house. In order to give them an insight into what has to be done.

9.6. Summary.

Chapter nine presents the analysis of the five multimedia families. This group of families was over sampled due to the intrinsic importance of newer ICT such as the internet to our research design. Although all families have an internet connection, this is not the most important appliance in all of them. Family discussions may revolve around other media appliances. For example, in one family the satellite dish and the lack of a cable connection were under discussion. Furthermore, being a 'real' multimedia family either depends on the interests of one family member or on the interests of the whole family. This is a feature of the difference in family dynamics.

The discussion of the five multimedia families is especially important for future research. It suggests the ways in which family's ICT environment as well as family's ICT density and ICT use will evolve. Furthermore, it indicates how families willingly or unwillingly decide how much influence they let these ICT have on their family life.

Throughout the analysis of the ten families important results that alter or support the theoretical framework emerged. In the following chapter these results are discussed.

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