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# Intergenerational solidarity and ICT usage: Empirical insights from Finnish and Slovenian families

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## Introduction

Over the last two decades, it has been argued that social relations have individualised due to increasing use of personal networking technologies (Rainie and Wellman, 2012). For instance, Kennedy and Wellman (2007) purport that individuals, rather than family solidarities, have become the principal unit of household connectivity as the daily agendas of family members diverge from each other. Supposedly, families are kept together ever more through ICT-mediated communication (Rainie and Wellman, 2012, p. 159). However, digital competencies and practices within families and between family generations may vary considerably, which makes it difficult to communicate similarly with all family members through ICTs. Also, states across Europe today rather enhance the importance of intergenerational solidarity within families than promote individualised lifestyle by providing publicly-funded services and benefits (e.g. Hammarström, 2005; Garattini and Prendergast, 2015).

In this chapter, we suggest that recent advancements in the use of ICTs, on the one hand, and the life course perspective, on the other, can clarify these seemingly contradictory developments. For instance, while mobile phones transformed family communication from place-to-place to person-to-person (Rainie and Wellman, 2013, p. 164), at present smart phones and social media are making one-to-many communication within (and beyond) families possible (Hänninen, Taipale, and Korhonen, forthcoming). We will also present here that such ICTs are differently engaged with and used in families across life stages, reflecting technological, personal, and societal changes in a contemporary society (e.g. Haddon, 2011).

The chapter is inspired by the notion of intergenerational solidarity in the context of ICT use within contemporary families. The aim of the study is to investigate to what extent ICT usage is intertwined with different forms of intergenerational family solidarity. The families investigated are so-called

(modified) extended families (Litwak, 1960) that consist of family members representing two or more generations, who may live in the same or different locations, and who stay in contact with one another by means of ICTs. The chapter also investigates potential country differences between Finland and Slovenia in terms of the relationship between the use of ICTs and forms of intergenerational family solidarity. We anticipate that country differences in family makeup, housing arrangements, and in the appropriation of ICTs in everyday life are reflected in the communication needs and practices of families and, thus, in the forms of family solidarity that are enhanced through use of ICTs. For example, the percentage of multi-generational households (13.7% vs. 0.6% in 2007) (EuroStat, 2010) and of young adults (aged 18-34) living with their parents (60.8% vs. 20.1%) (EuroStat, 2016) is considerably higher in Slovenia in comparison with Finland. Although both countries rank considerably high in the ICT Development Index, Finland is a step further in terms of its population's ICT skills and access to the internet (ITU, 2015). Also, the difference in problem solving skills in technology-rich environments is considerable between the countries, Slovenia (23rd) ranking far behind Finland (3rd) in a recent comparison of 29 countries (OECD, 2016).

## Theoretical background

### Intergenerational family solidarity

Bengtson and Roberts (1991) presented the intergenerational solidarity model in the early 1990s. It stems from the assumption that the importance of intergenerational relations is primarily defined through its contribution to common social cohesion in the family (Lüscher et al., 2015). Later, a large corpus of studies has built upon this model, investigating family relations between old parents, their adult children, and grandchildren (Hammarström, 2005, p. 34). The model draws from the theories of social organisation, underlining the importance on group norms and functional independence in behaviour, while also being premised on socio-psychological theories of sentiments and interactions.

The model consists of six solidarity types, each representing a dialectic dimension. Associational solidarity (integration and isolation) refers to the frequency and patterns of interaction connecting members of a lineage to one another. The modes of interaction may vary from formal to informal, including both ritual and spontaneous communications. Affectual solidarity (intimacy and distance) alludes to sentiments exchanged in intergenerational family relationships, such as warmth, understanding, respect and trust. Functional solidarity (dependence and autonomy) refers to the idea of help exchange, covering a range of activities from financial assistance to immaterial help. Normative solidarity (familism and individualism) indicates the endorsement of familial obligations,

while consensual solidarity (agreement and dissent) refers to the degree of consensus in beliefs, values or life orientations. The last dimension of the model is structural solidarity (opportunities and barriers), which implies the existence of an opportunity structure, such as availability of family members that is reliant to physical proximity, morbidity, mortality, and fecundity (Bengtson and Roberts, 1991; Bengtson et al., 2002; Hammarström, 2005).

The model is most suitable for the study of 'idealistic' family relations (Bengtson and Roberts, 1991) and it captures the positive aspects of intergenerational relations and assumes the absence of conflicts between family generations (Bengtson, Rosenthal, and Burton, 1996). In fact, the term solidarity in itself puts emphasis on consensus, rather than on conflict or ambivalence. Due to these limitations, the model was later extended with the idea of conflicts that coexists with solidarities both between and within generations (e.g. Bengtson et al., 1996; Bengtson et al., 2002; Silverstein and Bengtson, 1997).

The concept of intergenerational ambivalence presented by Lüschnner and Pillemer (1998) points out contradictions that exist between parents and their offspring but which cannot always be reconciled. They suggest that such contradictions stem from an individual's location in the social structure (structural ambivalence) and from an individual's sentiments when faced with structural ambivalence. Connidis and McMullin (2002) go further to claim that socially structured ambivalence is manifested in social interactions. Hence, agency, through which ambivalences are negotiated and privileged groups are formed should be studied.

Confronted with criticism, Bengtson et al. (2002) conclude that the ambivalence approach complements and expands the family solidarity model rather than competes with it. The ambivalence brings in the discussion structural and institutional factors (e.g., policy, cultural, economy) that intersect with family life, being still separate domains. In terms of methodology, Bengtson et al. (2002, p. 572) suggest that idiographic methods focusing on individual cases are perhaps more appropriate when studying negotiations that result in particular family forms and relations. Hence, qualitative methods might be more appropriate than nomothetic statistical approaches to investigate the ways in which various forms of intergenerational family solidarity are discussed vis-à-vis ICT usage and how possible contradictory expectations within families and between family generations are negotiated.

## ICT and intergenerational family relations

ICTs contribute to domestic meta-work, such as managing schedules, availability, and communication, as well as serve immaterial needs of families, ranging from entertainment and social networking to the feeling of security (e.g. Fortunati and Taipale, 2014; Ling and Haddon, 2003; Madden, 2010; Zickuhr, 2014; Zickuhr and Madden, 2012). Sayago, Forbes and Blat (2013) identified strategies that older people adopt in order to become successful ICT learners. These include linking learning to real-life needs (e.g. in order to be able to communicate with their children through Skype) and learning collaboratively.

The greatest motivator for older adults to get online and use social networking sites is communication with family and friends (Zickuhr 2014; Zickuhr and Madden, 2012). ICT equipment (e.g. tablet computer) are often gifted them by younger family members (Piper, Cornejo Garcia and Brewer, 2016), who also help them to buy and set up a computer and go online (Selwyn, 2004; Zickuhr, 2014; Zickuhr and Madden, 2012). Previous studies show a rather consistent pattern of households with children being more likely to use and adopt computers, the internet and mobile phones than other household arrangements (Kennedy, Smith, Wells and Wellman, 2008; Lin, Tang, and Kuo, 2012; Luijkx, Peek and Wouters, 2015; Mori and Harada, 2010).

Several survey studies explore ICT use and uptake in families by analysing the characteristics of individual family members, as more nuanced and knotty intra-family relationships are difficult to quantify (Eynon and Helsper, 2015). Another common feature in prior studies is that they contrast the concern over the decreased family time with the privatised solo use of new personal technologies (e.g., Livingstone, 2009; Oblak Črnič, 2009). Here we pay more attention to a range of new intergenerational relations of help, care and intimacy that take place in online environments and are negotiated through ICTs (Valentine, 2006).

Research on the relationship between ICT use and intergenerational family relations is still scant in Finland and Slovenia. One of the few Finnish studies explored the associations between ICT use, and peer and parent relations among 10–13 year-old children in Finland (Punamäki et al., 2009). It found that intensive ICT use for entertainment (digital games and internet surfing) and communication was related to poor parent–child relations. These relations were also gendered as digital gaming was specifically associated with poor mother–daughter and poor father–son relations. Another study investigated the use of old and new means of communication with a particular focus on geographical distance between grandchildren and their grandparents (Hurme, Westerback and Quadrello, 2010). It was found that there are fewer in-person, landline, and mobile phone contacts between the two

generations the farther away they live from each other. Conversely, the use of letters and/or cards, increased with geographical distance. The social networks of older people, especially grandchildren, have an essential role for their adoption and use of ICTs (Kilpeläinen and Seppänen, 2014; Rasi and Kilpeläinen, 2015). Some studies have also cast light on the use of ICT in families from the perspective of time use. Based on the data from Finnish time-use surveys, it is maintained that while computer and internet use are largely solitary activities in households, television programmes are still watched more with family members than with friends (Repo and Nätti, 2015).

Some relevant empirical studies were also conducted in Slovenia. The first analysed how the availability of emotional and social support is associated with proxy internet use. A survey study showed that internet non-users with larger social networks and stronger intergenerational support (e.g., a higher proportion of (grand)children in the social support network) are more likely to ask others to do things online for them (Dolničar et al., 2013). The other study, based on interviews with parents and their children, shows that in Slovenian families the computer has several controversial roles depending on the generation that the user belongs to: from being 'an intruder', 'destroyer of personal relationships' or a 'comforter' to a 'multi-tool for every occasion'. While young people perceived computer technology as a bridge between various structures of everyday life, their parents often considered the same technology as a source of family disintegration (Oblak Črnič, 2009).

## Method

### Participants

Our empirical data consists of 45 student reports based on extended group interviews and observations collected from Finland and Slovenia.<sup>1</sup> College students served as key informants of the study. In Finland, the key informants were social sciences and communications studies students at the University of Jyväskylä, who completed the assignment between December 2014 and March 2015. The recruitment of the key informants was conducted through university e-mailing lists. The total number of informants in this study is 133, including the 22 key informants. Nineteen of the key informants are females and three males. Their ages range from 20 to 38, being 28 on average. The key informants interviewed and observed altogether 61 female and 50 male family members, who geographically represent the whole country. On average, the interviewed mothers and fathers (N = 36) lived 150 km, sisters and brothers 317 km (N = 26), and grandmothers 239 km (N = 10) away from the key informant.

In Slovenia, the key informants were students of the Social Informatics graduate programme at the University of Ljubljana. The students completed exactly the same assignment as the Finnish students did but as a compulsory course assignment between November and December 2014. The total number of Slovenian informants is 139, including the 23 key informants, of whom 15 were female and eight male. The age of key informants varied between 23 and 30, being 28 on average just like in Finland. In Slovenia, the key informants interviewed and observed included, altogether, 61 female and 54 male family members. On average, the interviewed mothers and fathers (N = 42) lived 58 km, sisters and brothers 141 km (N = 27), and grandparents 90 km (N = 22) away from the key informant. Besides the longer geographical distances between family members in Finland, the main differences between the two countries' data relate to the age of interviewed family members. In Slovenia, the interviewed mothers were, on average, three years and grandparents four years younger than in Finland. In contrast, the siblings of the key informants interviewed for the study were about five years younger in Finland.

## Procedure

The data collection method applied is called the Extended Group Interview (EGI) (Hänninen, Taipale and Korhonen, forthcoming). The EGI was designed to study intergenerational relations among a relatively large number of family members. The EGI is grounded on the collaborative nature of the ethnographic enquiry and new methodological ambitions concerning family group interviews (Reczek, 2014). The 'extended' refers to the many attributes of the method. First, it highlights that the method allows the study of (modified) extended families instead of nuclear families. Second, the 'extended' refers to various methods of conducting interviews ranging from in-person to technology-mediated interviews (via phone, Skype, etc.), and third, the EGI allows us to reach a large number of family members by extending the interviews from one specific place and time into a series of interviews.

The combination of EGI and observation has a collaborative element between the key informants and the researcher, providing all family members a possibility to express their own voice freely (Lassiter and Campbell, 2010; Rappaport, 2008). Also, dissenting voices were well reported by the key informants. Despite these strengths of the EGI, it is obvious that the preconceptions of key informants influence their observation and interviews (e.g. Marshall, 1996). Also, the double role as

a researcher and as an informant may complicate key informants' interactions with other family members.

The key informants were given the assignment to observe ICT-related communication in their families for one week and then interview at least five of their family members on their ICT use. Based on the fieldwork, the key informants wrote three essays, with minimum of 300 words each, in which they were asked to describe: (1) what ICT tools and applications were used to stay in touch with family members; (2) how the key informants consider their ICT skills in relations to one another; (3) how ICT shapes the roles within their family. ICT was defined broadly as different kinds of digital communication devices or services that are used to stay in contact and communicate with family members (e.g. mobile phones, e-mails, Facebook, Twitter, WhatsApp, Instagram).

The key informants were instructed to interview at least one of their parents and one grandparent, if that was possible. They were free to determine the three remaining interviewees provided they were of different ages. Some key informants extended the interviews to their cousins, children and spouse's relatives. In addition to the reports, key informants gathered background information on each interviewee (e.g. gender, age, relationship with the key informant, and the geographical distance if the key informant and the informant did not share a household). The modes of data collection used with different informants were also reported.

#### Analytical technique

The research material is analysed following the principles of a directed approach to qualitative content analysis (Hsieh and Shannon, 2005). Using the Bengtson and Roberts's (1991) model, we investigate the ways in which pre-determined solidarity dimensions are presented and discussed in the research material. Given that the solidarity model was not developed to study intergenerational solidarity in relation to ICT use specifically, it is possible that some categories are discussed less extensively than others, and the expressions of solidarity that match poorly with any or overlap with two or more categories can be identified. While reporting results, pseudonyms are used to guarantee the anonymity of the informants.

## Results

### Associational solidarity



The most salient observation from the key informants' reports is that ICTs facilitate intra-family communication, particularly in Finland. Social media applications in particular, such as WhatsApp, Facebook, Path, and Instagram, have both increased and enriched interactions between family members. It is the possibility to use not only text and voice, but also photos, videos, and voice messages that is considered enriching to family communication in Finland (e.g. key informants Teresa, Eva).

While none of the Slovenian reports discussed WhatsApp as a platform for family communication, two thirds of the studied Finnish families had created a WhatsApp chat group for family. Sofia's brother Johan summarises the benefits of the group as follows: "Thanks to WhatsApp we write and communicate with another more than before". Similarly, another Finnish key informant Emilia maintains that: "We are much more in touch with other family members after adopting WhatsApp". WhatsApp does not only make interaction more regular, but it increases its volume and enables one-to-many communication.

"They [other family members] think that the group and its regular use have brought us closer. Now when everybody receives the same messages at the same time we can communicate with the family, and not only one-to-one. This is especially important for dad, since we otherwise call more to mom, but now communication within the family is more balanced." (Emma, Finland)

The above excerpt discloses another characteristic of associational solidarity in Finland. In particular, grandparents who do not use the same communication technologies as younger family members and often middle-aged fathers too, are either not included or they deliberately remain outside ICT-mediated family communication (e.g. Isabella's family). As Sara writes:

"I send most of my messages [in WhatsApp and Facebook] to my mom, just like my brother. Sometimes I send messages to my brother too, but often I prefer to make a call. To dad we seldom send messages by WhatsApp, as his internet connection is not always on, and he does not notice messages immediately."

Other reports further illustrate the limited communications with fathers in Finland. The sister of Isabella explains that she "counts that mother conveys the news from father". In some families the feelings of exclusions are very explicitly described. Finnish key informant Julia writes that "Me and

my sister have noticed that our father thinks that we continuously chat only with mom on the phone, and do not give him a ring nearly as often. What is indeed partly true.”

These excerpts reinforce the idea that mothers remain the main moderators of family communication in Finland. In some families, it was mother who proposed creating a WhatsApp chat group for the family (e.g. Emma’s family). Teresa underlines the role of mother in Finland summarising that “WhatsApp is used in our family by mother and all children”. Also, Finnish key informant Emilia writes that “Mom no longer needs to call once a week, asking news from her offspring, as we exchange news everyday (via WhatsApp)”. Besides WhatsApp, mothers are connected to their children through other social media such as Facebook and Instagram (e.g. Maria’s family, Finland).

Conversely, family and multi-generational housing arrangements in Slovenia do not create a similar need for the use of digital technologies for family communication as in Finland. Consequently, ICTs support associational solidarity to a lesser degree, like Slovenian key informant Katarina elucidates:

“I communicate via my mobile phone with other members of my family because such means of communication is sufficient, since we live nearby and visit each other regularly, so there is no need to use Skype, Facebook, etc.”

Occasionally when a family member travels abroad or a relative resides afar, Skype and social media are used to maintain contacts similarly in both countries (e.g. the families of Mia and Anton in Slovenia, and the families of Sara, Lucas, Maria, and Emma in Finland). The geographical separation of families makes also older family members realise the associational capacity of new technologies. Katarina from Slovenia illustrates this as follows:

“Given the fact that my sister (29-year-old) lives in Rome (800 km away), they talk to her via the Internet, i.e. Skype. Grandfather (82-year-old) has also learned how to use Skype in the last six years, as he wishes to communicate with his granddaughter, who comes to Slovenia only twice a year to visit.”

In summary, country-differences in the organisation of family and housing reflect in the ways informants describe the role of ICTs in family relationships. While geographically scattered extended families in Finland have found the exchange of short messages via WhatsApp and Facebook as a

channel to perform family solidarity from afar, the physical propinquity of family members in Slovenia do not bestow a considerable role for the same ICTs in family communication.

## Affectual solidarity

There is not much evidence that ICTs would particularly contribute to the exchange of positive or negative sentiments. However, the research material does reveal that good affectual relationships between children, parents and grandparents facilitate the uptake of new technologies in both countries. Intergenerational reassurance is considered in many families as a way to promote ICT usage among older family members. Other family members are encouraged "to try to find a solution on their own" when hands-on teaching in the adoption or use of ICT is not enough, as Marija from Slovenia writes. Another Slovenian key informant, Petra, writes that: "They [older family members] first need some encouragement."

Even if above-described practical and affectual support is at times considered a burden, younger family members appreciate that they are considered useful. In Slovenia, Jakob confirms this by writing: "If I may say so, those of us who help in such moments feel positive about ourselves because we feel useful and are happy to help". Likewise, in Finland younger people try to advise their older relatives in the use of digital technologies. Simon puts it as follows: "I have noticed that I take a role to encourage others in technology use. I am pleased to give advice and I try to motivate for instance my grandmother in the use of Skype".

The exclusion of certain family members from ICT-mediated family communication may also stem from the lack of affectual solidarity. This appears to be the case especially in Finland, where grown-up children consider their older relatives' comments on Facebook or Instagram posts embarrassing (e.g. Lisa, sister of Maria). Furthermore, the Finnish key informant Rita writes that as "phone calls with father are uncomfortable, I rather send him text messages or talk face-to-face". The other side of the coin is that "in some more complicated relations, social media is a low threshold medium for expressing warm emotions that are difficult to express face-to-face or express in words", as Rita's fellow citizen Laura maintains. These contradictory examples illustrate well that social media and other digital technologies are used with careful consideration to serve the varied needs of families.

## Consensual solidarity

By consensual solidarity we refer to the degree of agreement or dissent in beliefs, values or life orientations related to ICT use for family communication. In this regard, the key observation is that shared values and beliefs have not been established in the studied families, yet some are taking shape while parents follow their children's ICT use. Sometimes the gap between generations in their ICT-related skills is regarded as a barrier for the formation of consensual solidarity. Slovenian key informant Erika writes about this:

"He [father] was not always so confident and technologically educated, but with my help and because of my enthusiasm towards new technologies, he has become a sort of "connoisseur" of ICT, although he still does not fully understand the scope of his knowledge, which can rival mine in some areas."

There is a greater agreement on the growing importance of ICT skills in families (e.g. Marija, Tia, Anton in Slovenia) and the consensus is built upon the idea that everyone should not even have exactly the same skills, but that skills can complement each other, making the family as a whole stronger. In Slovenia, Marija illustrates this as follows:

"They [father, mother and aunt, all in their 60s or 70s] all stress the importance of communication skills, which are very important in everyday life, interpersonal interactions and in the use of ICT. They do not compare skills directly with each other, as they perceive them to be different categories of skills, incomparable with each other and which are intertwined, while emphasizing that they are all very important for successful and well-integrated functioning in everyday life and in the use of ICT tools."

The most obvious dissent, especially in Finland and to a lesser extent in Slovenian families, relates to what is considered as proper online communication. Younger family members are accustomed to open and straightforward online communication, while older people call for cautiousness and linguistic flawlessness. This disagreement between family generations is explicitly reported by Rita from Finland:

"My parents are horrified of all that openness that my sister keeps on performing in Facebook and in her blog. In turn, my sister hasn't noticed that her openness on these platforms would have caused any harm for social relation or finding a job, for example."

Similarly, Finnish key informant Maria writes that: "My father thinks that parents associate some sort of formality to communication, everything is taken more seriously, each thing and say are considered more carefully. Among younger interaction is more easy-going and free". The Slovenian key informant Veronika also writes about disagreements between generations regarding the proper style of communication:

"The younger generation also finds it unusual and slightly distracting that the older generation writes text messages in the proper register of Slovene. Most young people are accustomed to writing messages in colloquial language."

Despite some disagreements, the research material speaks about families' attempts to find consensus and overcome some generation stereotypes. For instance, the step father of Laura in Finland argues that: "There are 'jerks' in every generation" and he talks about "conflicts, and how it is easier to avoid them in social media by leaving the scene". Such consensus-seeking attitude is reflected in the reports collected from both countries. Consensus is also associated with the idea of democratic family, in which everyone has an important, yet different role to play. Even if all informants do not agree that family would have democratised, family members seem to widely agree (e.g. Marija's family in Slovenia) that roles have somewhat changed. Even if parents may still have a final word, children are typically listened to and consulted in technology-related family decisions.

## Functional solidarity

Two major themes emerge from the research material concerning functional solidarity with regard to ICT use. The first relates to the equity in the exchange of knowledge and resources over the life course. When children are young, parents teach them some basic ICT skills, like Marija from Slovenia writes: "When I first started using electronic banking a few years ago, my father had already been using it (he learned from my brother), and he helped me to learn how to use it, which I greatly appreciated." Sometimes parents and grandparents also teach their more mature children, for instance, regarding the use of domestic technologies not typically needed when young. Slovenian Veronika mentions an electronic blood glucose monitor or a digital meat temperature gauge as examples. Furthermore, it is generally agreed in both Slovenia and Finland that parents can deepen children's understanding on various issues owing to their life experiences (e.g. Karin in Finland, and

sister of Natalia in Slovenia). Parents can also teach patience in the use of ICTs (Sara and Mary in Finland) and help understand the line between formal and informal communication (Mary in Finland). Parents also remind about online risks and advice in wise ICT usage (e.g. Karin in Finland; niece of Tia in Slovenia). But when children grow up, the roles in teaching, especially technical matters, get typically reversed.

The second key observation pertains to the intergenerational provision of help by grandchildren. Contrary to Finland, where interaction between grandchildren and grandparents is typically limited to short calls and greetings via text-messages (e.g. families of Sara and Emma), in Slovenia grandchildren have relatively close relations with their grandparents, which often means regular assistance in ICT use (e.g. families of Katarina, Franc, Veronika, Mia, Tina, and Katja). The key informant Katarina describes this, revealing also the demands of such a relationship in the context of e-mail use, as follows:

“It is a lengthy process and almost every Sunday when I visit him [grandfather]. I have to help him with something. I am also bothered by the fact that I often do not know what he needs help with... [if it is] for example, with the use of Outlook (formerly Hotmail), as a Gmail user I am unable to understand what he wants.”

In Finland, young people do help their own parents in sorting out various technical problems, but they are less frequently and intensively in touch with grandparents than their Slovenian counterparts. A considerable part of this country difference is explained by the greater geographical distances between children, their parents and grandparents in Finland; providing assistance in technological matters from afar is really challenging, in particular when people in need of help are technologically less savvy.

## Normative solidarity

The research material contains little concrete examples about the existence of family norms with regard to ICT usage. Nevertheless, concerning some specific issues, like data security, family members in both countries seem to agree with one another. Like the brother of Finnish key informant Sofia argues: “Parents say: ‘don’t download this and that, even if they would be requisites [for the functioning of program or alike].’ I mostly do what they say.” Similarly, in Slovenia Katarina writes about how her father “is very reticent to publish any personal posts and advocates and

teaches others not to publish personal information on the web” and that her 25-year-old sister “is strongly aware of this, and posts only more general things”. However, this norm is shared only by the two in Katarina’s family as other “do not post a lot of information online, and focus more on looking for information”. In fact, it is not always clear how widely these norms are acknowledged, shared, and/or complied with as there is much variation in ICT usage in families.

In both countries, there are some familial obligations that are entrusted to and typically well received by one person, to whom others turn to ask for help (e.g., the families of Isabella and Carla, in Finland, and families of Franc and Veronika in Slovenia). Borrowing the words of Bakardjieva (2005), these persons can be named as ‘warm experts’; they are technically skilled and share the daily life of other family members. The latter makes them different from ‘cold experts’, external IT professionals. The following excerpts from Finnish and Slovenian key informants, in respective order, illustrate this:

“My brother has the main responsibility with regards the functioning of communication tools, applications and programmes. I feel it is self-evident that he sorts out the problems I detect in devices and programs. I never hesitate to ask help from him either.” (Karin, Finland)

“As for teaching others and introducing new ICT, my father (67), my mother (54) and my brother (35) unanimously agree that I am responsible for teaching others and ensuring the proper use of technology in our family.” (Tia, Slovenia)

It is the regular provision of help between grandchildren and grandparents, which can be considered as a kind of filial duty or a cultural norm, that distinguishes Slovenia from Finland. What underscore the normative nature of such grandchild-grandparent ICT aid is that the interviewees oftentimes take it for granted. It is considered as a natural part of family life, as it turns out from the report of Slovenian key informant Petra: “Whenever family members need help, I am glad to help them no matter how busy I am. I feel a sense of duty because that is how I was raised.” The Slovenian key informant Anja also writes that her grandfather often prefers contacting his grandchildren directly, as they know how to help.

What emerges from the Finnish data is the ambivalence of communication norms between different generations. For instance, Rita reports:

“My parents are, in turn, more dutiful and trustworthy as communicators than people of my age or younger. My parents always answer to the phone, if they are not driving a car or taking a sauna. They also reply to all text messages they receive and read them immediately when incoming message beeps. They also answer to emails straightaway, when they have time to read them. With people of my age the culture of using mobile phone differs from that of fixed phones more clearly. ... There is no need to always answer the phone, and you may switch it off completely, if you want to be alone.”

This excerpt illustrates how the normative basis of use of ICT for communication has not been established in families yet. The disagreement concerning the proper uses of ICTs between generations seems to echo with more general normative expectations that separate younger from older people. Similarly, a relatively strong expectation concerning the provision of assistance from grandchildren to grandparents (or its absence, like in Finland) cannot be considered only specific to use of ICT, but it certainly reflects more profound cultural values, prevailing housing arrangements and the integrity of the family that vary between Scandinavian and South European countries (e.g., Hank, 2007).

## Structural solidarity

Structural solidarity refers to the opportunities and barriers to intergenerational family interaction via ICT. These structural factors shed light to many country differences discussed earlier in the chapter. While shorter geographical distances make possible regular in-person interaction between family members in Slovenia, longer distances in Finland create a demand for technology-mediated family communication from afar. The Slovenian key informant Tia notes: “I agree that our family has always spent a lot of time together, and the whole family lives relatively close, so in the time it takes to call someone you can simply find them and tell them in person.” (also for Jakob and Angela in Slovenia).

On the contrary, Finnish interviewees highlight that regardless of different ICT preferences between young and old generations, families are highly dependent on technology due to long distances keeping them apart. The key informant Emma writes: “As there are several hundred kilometres of physical distance, meeting face-to-face is not very often possible”. Emma adds to this: “The utilisation of information technology makes it possible to maintain close relations with close ones even if there is lots of distance”. Such comments are less frequent in Slovenia. However, the



importance of ICT (e.g. email, Skype, Viber) for family communication and solidarity are recognised especially when a family member moves to another country (e.g., the families of Erika, Julija, Klara). Health conditions and functional capabilities are other structural factors that influence the possibilities to enhance family solidarity via ICTs. Poor eye-sight and agility of hands are mentioned as factors reducing ICT use for family communication in both countries. For instance, in Finland Emilia writes that "Grandfather's vision has worsened so much that he can barely read or write. He has also forgotten how all the equipment works, so he no longer uses other devices than the phone". In Slovenia, Petra writes about her parents and grandmother who use a feature phone, but find that "their fingers are 'too tough' and they do not have a lot of sensitivity in their finger pads" (also Marija and Aleksej in Slovenia).

Furthermore, comments show that health problems can make older people realise the benefits of ICTs. As Katarina from Slovenia writes: "Grandmother did not want a mobile phone, but she got one when she spent a longer period of time in the hospital for knee surgery". Both grandparents were "convinced to use ICT by the possibility of communicating with their granddaughters and great grandson".

## Discussion and conclusions

In this chapter, we explored how the uses of ICT in extended families relate to family solidarity in Finland and Slovenia. Regarding our first aim, to what extent ICT usage is intertwined with different forms of intergenerational family solidarity, we showed that in spite of increasingly individualised networking, ICT use contributes to solidarity in extended families. However, this applies mainly to associational and functional solidarity, and is specific to life stages as well as reliant on prevailing housing arrangements and cultural values. Structural factors, such as long distances and physical ability to control ICT devices, influence the utilisation of ICTs for promoting associational and functional solidarity in families. We also revealed that normative, consensual, and affectual forms of solidarity are manifested to a smaller degree in relation to ICT usage. This might be explained with increased individual networking, which presuppose less familial regulation for ICT use and may thus rather cause disagreements within family than add to its integrity.

Regarding our second aim, to investigate potential country between Finland and Slovenia in terms of the relationship between use of ICTs and forms of intergenerational family solidarity, we come across with some obvious differences. It turned out that social media platforms have been particularly

embraced in Finland to enable new micro-level (or nano-level, see Eranti and Lonkila, 2015) interactions between family members. A perpetual exchange of short messages, especially through WhatsApp, enhances associational solidarity between family members, who live apart and have few occasions to meet in person. At its best, the use of one-to-many communication tools ties together many family members or the whole family. Unlike in Finland, the adoption and use of ICT in Slovenian families feeds functional solidarity between generations. Physical propinquity in intergeneration relations makes technological assistance – a new form of social support between grandchildren and grandparents – a common practice with positive consequences for family solidarity.

This result suggests that intergenerational assistance in ICT emerges not just from generational differences, but also pertains to life stages and country differences in the developmental stage of the information society. The higher use of social media for intra-family communication seems to account at least for the fact that young people live longer with their parents in the same household (EuroStat2016). Furthermore, in some life stages a person is clearly more dependent from other family members when it comes to the use of ICTs (e.g. while a child learns to use ICT for the first time or an older adult tries to keep up with technological development). In light of the ICT Development Index, the need for intergenerational assistance in ICT use might be higher in Slovenia, where ICT skills and the share of individuals using the internet is somewhat lower than in Finland (ITU, 2015).

Some implications for further research can be drawn from this study. While many causal relations between various solidarity forms have been found earlier (e.g. Bengtson and Roberts, 1991; Grzywacz and Marks, 1999; Hogerbrugge and Komter, 2012; Schwarz, Trommsdorff, Albert, and Mayer, 2005), our research indicates that ICT-mediated interaction may alter such associations. For instance, the lack of normative solidarity in family communication is perhaps not related to lower associational solidarity (cf. Bengtson and Roberts, 1991) as ICTs enable communication from afar and continuously. The research also pointed out some ways of measuring ICT-related family solidarity. In particular, intergenerational help with ICT use emerged as a potentially important indicator of functional support in Slovenia. Affectual solidarity, in turn, could be gauged through the level of encouragement contributing to ICT use among other family members. Lastly, having the same ICT tools and applications as other family members could work as an indicator of structural solidarity.

Finally, this study is also subject to certain limitations inherent to the EGI method (elaborated above) and study design. It is obvious that the student key informants and their family members included in the sample are ethnically rather homogeneous. Including ethnic minorities and immigrants in the study could have revealed such practices of ICT use that enhance family solidarity but remained now undiscovered. It is also worth noting that even small age differences between the key informants and their interviewees may be reflected in the results. The fact that the key informants' mothers and grandparents were younger in Slovenia and the key informants' siblings were younger in Finland may be reflected in the distinct patterns of family interactions between countries, frequent in-person contacts being more typical for the former, and social media use for the latter.

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<sup>i</sup> The analysis here concentrates in these two countries, although data was also collected from Italy.