

## The emergence of the 'digital generation' in Estonia's transition period

Veronika Kalmus

**Abstract.** This chapter examines Estonian transition society from the perspective of media use and 'media generations'. The focus lies on the younger cohorts born between 1978 and 1996, with their formative years falling in the period after Estonia regained its independence in 1991. By applying a cultural, multi-dimensional perspective to digital stratification and media generations, the chapter aims to reveal how Estonian young people, according to their media use characteristics, are positioned in the socio-cultural field vis-à-vis older generation groups. Bourdieu's concepts of multiple forms of capital, 'taste', and 'habitus' are applied to contemplate the extent to which structural versus lifestyle-related aspects of media use justify the discursive construction of the young as the 'digital generation'. The chapter also deals with the reflexive aspect of constructing generations by analysing how the perception of intergenerational differences is related to media use preferences and attitudes towards new media technologies. The analysis is based on quantitative data from representative population surveys conducted in 2002 and 2011, enabling us to observe the dynamics of media use across a period of almost ten years.

The characteristics of media use and the related cognitive aspects outlined in the chapter allow us to interpret the crucial distinctions between the age groups as referring to different 'media generations'. The findings, particularly the structural aspects of new media use, justify the discursive construction of the young as the 'digital generation'. The boundary of the 'digital generation' remains vague, extending, according to some criteria, to those born in the late 1960s. The chapter describes the unfolding process as the 'digitisation' of media generations, most clearly observable among those born between 1982 and 1996. Furthermore, media experiences shared with members of another media generation are shown to be related to a weaker perception of inter-generation gaps.

## Introduction

The post-socialist transition in Estonia is often viewed as a special case among Central and East European countries. Specifically, economic reform in Estonia has been radical, particularly in its highly liberal transformation policies, sometimes highlighted as the key component in Estonia's success. Closely related to the economic aspects of the socio-cultural field, technological change has been a crucial component in the Estonian transition. 'Internetisation' has become one of the central symbols of the rapidly changing society, leading to a widely held perception of Estonia as a leading e-state (Runnel et al 2009). It can be argued that the speed of the adoption of new information and communication technologies (ICTs), both on the institutional and individual levels, and the prominence of the celebratory discourses legitimating this process, have led to the acceleration of social time (cf Adam 2003; Spurk 2004) and further intensification of transformation.

The speed of social and technological changes, however, has affected different social groups to a varying degree, bringing about emergent patterns of social distinction and stratification. The category of 'social generations' (Pilcher 1994), undoubtedly, deserves a prominent position in sociological analyses of transformation: generations differ because events occur at dissimilar locations on the lifespan; their speed of adapting to rapid social changes has become one of the most significant markers of social inequality. For example, it is argued that Estonia experienced a change from a gerontocracy to a 'youth-oriented' society (Tallo & Terk 1998). Studies of perceived social status (e.g. Lauristin 2004; Lindemann 2011) have, indeed, shown significant differences from Western countries, with Estonian young people estimating their social position to be higher compared to other age groups, regardless of education and income, and notwithstanding the fact that the youth unemployment rate in Estonia is one of the highest in Europe.

The paradox of the youth-dominated Estonian society can be explained by taking into account the distinction between class-based and status-based social stratification (Weber 1978 [1922]). While social classes are groups of people who have the same economic position, status groups are formed on the basis of social esteem, which is typically practiced as well as expressed through a specific lifestyle. Status may depend on class position; however, it is not solely determined by it. In a similar vein, Pierre Bourdieu (1984 [1979]) emphasises the role of multiple forms of capital, which are increasingly becoming a new basis of social inequality. Although economic capital remains the main principle of domination in capitalist society, its efficacy as a principle of stratification is constantly

challenged by factions of the dominant class (for example professionals, academics, etc.) and other social groups who are relatively poor in economic capital, but who strive to enhance their cultural and/or other forms of capital as a rivalling principle. Furthermore, Bourdieu argues that members of a social class share the same objective structures, which give them the same objective meanings of collective practices. These common practices include similarities in lifestyle or a certain 'taste' that is reflected in 'habitus'.

In contemporary societies, where ICTs are becoming increasingly important in almost all spheres of life, differences in taste, habitus, and capital manifest more and more in distinctive consumption patterns, self-expression, and cultural practices based upon unequal access to and socially variable use of ICT products and digital services. Such digital stratification, in turn, creates and reproduces social stratification, particularly in the context of rapidly developing information societies in which both public- and private-sphere services are increasingly available exclusively online (Kalmus et al 2013b). As digital skills tend to be most rapidly adopted by younger generations, more technologically inert elderly people may experience a decline in social status. Distinctive patterns of new media use, thus, acquire growing significance in the sociology of generations. Media technology – and its dominant uses, which an individual gets socialised into during his or her childhood and youth – becomes that which "one keeps a special relation with for the balance of one's life" (Bolin & Westlund 2009, 109). Based on this assumption, the concept of 'media generations' appears, differentiating for instance between the radio generation, the black and white television generation, and the Internet generation (Volkmer 2006). Moreover, contemporary children and young people are often defined by their relationship to the media technology they embrace from their childhood, with a variety of labels such as the "digital generation" (Papert 1996), the "Net generation" (Tapscott 1998) and "digital natives" (Prensky 2001) used to signify supposedly common characteristics of this age cohort.

This kind of labelling, often criticised for attributing too powerful a role to technology or a particular medium, brings us to the socially constructed nature of generations. The discursive and reflexive dimensions of generation construction are highly significant with regard to intergenerational relationships and the process of socialisation: when the younger generation is constructed as more competent in an area deemed as a central innovation of society (e.g., ICTs), and when they internalise this quality as a mainstay of their generational identity and consciousness, the older generations face a considerable challenge in fulfilling their socialising role (cf Kalmus & Roosalu 2012).

This chapter examines social generations of the transition period in Estonia from the perspective of media use and media generations. The focus lies on the younger cohorts born between 1978 and 1996, whose formative years fell in the period after Estonia regained independence in 1991. Furthermore, media socialisation of this age group largely took place in the late 1990s when the diffusion rate of new media technologies accelerated in Estonia (Runnel 2009); thus, even the oldest segment of this generation became acquainted with computers and the Internet at a young age. The analysis is based on quantitative data from representative population surveys conducted in 2002 and 2011, enabling a comparison of the younger generation with other age groups and observation of the dynamics of media use over a period of almost ten years.

This chapter proceeds from a cultural approach to social and digital stratification which focuses attention on the multi-dimensional nature of inequality, viewing it as being related to class position as well as status differences, and raises the issue of lifestyle and consumption (Witte & Mannon 2010). In line with this, the chapter draws upon a cultural conception of 'media generations' (Aroldi & Colombo 2007; Vittadini et al 2013), according to which neither the development of media technologies, nor people's ages, are relevant in themselves. 'Media generations', too, are treated as a multi-dimensional category that needs to be analysed as closely related to different factors, such as lifespan phase, the development of the media system, the phases of technological innovation, processes of domestication and incorporation of technologies and media products, and broader structural changes that affect the social and cultural system (Aroldi & Colombo 2007). Membership of a media generation is defined by "the fact of having the same age and having to confront the same cultural panorama" (op cit, 36). Accordingly, in addition to media technologies and their dominant uses as experienced during one's formative years, a more nuanced picture of "media repertoires" (Hasebrink & Popp 2006) or "media diets" (Aroldi & Colombo 2007) is needed to conceptualise and describe media generations.

By applying the cultural, multi-dimensional perspective on digital stratification and media generations, this chapter aims to reveal how Estonian youth, according to their media use characteristics, is positioned in the socio-cultural field vis-à-vis older generation groups. Bourdieu's concepts of multiple forms of capital, 'taste' and 'habitus' are applied to contemplate the extent to which structural versus lifestyle-related aspects of media use justify the discursive construction of the young as the 'digital generation'. The chapter also deals with the reflexive aspect of constructing generations by analysing how perception of intergenerational differences is related to media use preferences and attitudes towards new media technologies.

## Conceptualising media generations

### 'Generation' as a social construct and a sociological category

The concept of 'generation' has several different meanings in the social sciences. While demographers define generations in terms of reproduction cycles, and family sociologists tend to study individuals as members of generations in the kinship sense, sociologists of youth and generations focus on generations in the cohort sense, or as social generations (Pilcher 1994), linking the concept with social time and chronological consciousness (Nugin 2010). According to Karl Mannheim's (1952 [1927/1928]) conception of the socially constructed nature of generations, the very notion of a generation depends on the existence of a shared generational identity and self-consciousness. Although an objective prerequisite for generations to emerge is that members were born within the same structural and social conditions (or "generational location" in Mannheim's terms), a generation as a social construct comes into being "when a formative historical experience coincides with a formative period of people's lives" (Marada 2004, 153). New generations, in Mannheim's sense, form during sudden and significant societal changes, after which young people have to adjust and develop their habitus in a new social context. The young are the first age cohort to experience and negotiate new social conditions during their socialisation years (according to Mannheim, they have 'fresh contacts' with the emerging phenomena). This makes young people interpret their common social experiences in a way that differs from that of previous cohorts and provides them with their own shared orientations, principles of evaluation, and discursive practices (Corsten 1999), all of which create a "generation as an actuality" in Mannheim's terms.

As formative historical events and social changes may unfold at a different pace and cover various time spans, the definition of the length of a generation remains vague (Lovell 2007). Mannheim (1952 [1927/1928]) states that a generation can embrace fifteen to thirty years, but such parameters are never strict. Whilst a generation is a social entity in which members have a certain 'bond' and 'generational consciousness', the connection between the members is not as tight as it is in groups, where the members depend on each other. A generation, thus, does not have to be a homogeneous concept, but rather consists of 'generational units' – people who "work up the material of their common experiences in different specific ways" (Mannheim 1952 [1927/1928], 304). Radim Marada (2004) also argues that people filter a shared experience of historical periods or events through their respective socio-economic classes, gender orientations, geographical locations, etc., which supports the concept of 'generation'

as a multi-dimensional category (Aroldi & Colombo 2007). The Mannheimian generation approach, thus, can serve as a viable and palimpsestic alternative, or a compliment, to Marxism for the understanding of social stratification (cf Eyer- man & Turner 1998). While Marx's social class is primarily distinguished in terms of group interests and access to resources, generations are constituted according to their relation to social, cultural, and historical time (Corsten 2011), and to the respective lifestyles underlying status-based social stratification.

### Generational construction and the media

Relationships between generation construction and the media are meaningful in a broad sense, representing structural changes in the cultural system as well as social divisions. Elsewhere (Kalmus et al 2013a), we have delineated three main ways the media may contribute to forming generational consciousness and constructing borders or bridges between generations.

First, age cohorts differ in how media technologies and specific 'news cultures' perform distinctive roles as mediators of the world for them (Volkmer 2006). According to Steve Anderson's (2001) framework, memories of the media as specific technologies as well as their meaning in the construction of the life-world, experienced during one's formative years, have relevance for today's media usage and world perception. We suggest that since they perform as mediators of the world during childhood and youth, media technologies are related to Mannheim's definition of "generational location", providing an age group's "specific range of potential experience, predisposing them to a certain characteristic mode of thought" (Mannheim 1952 [1927/1928], 291), in other words, the cohort's "mental opportunities" (Corsten 1999).

Second, different media technologies provide distinctive "communicative affordances" (Hutchby 2001) that influence the patterns and habits of media consumption, including the extent to which the media are used for participation and creative activities, or "produsage" in Axel Bruns' (2006) terms. This aspect of the media parallels Mannheim's notion of "generation as an actuality", in the sense of participation "in the characteristic social and intellectual currents of their society and period" (Mannheim 1952 [1927/1928], 304). Moreover, the media offer an inventory of both symbolic resources and spaces where people can share their habitus in terms of "the collection of practices through which generational experiences are manifest" (Edmunds & Turner 2002, 16), thus serving as a powerful channel in constructing and reinforcing generational identity.

Third, the media may function to provide 'bonds' or construct borders between generations and 'generational units' in Mannheim's sense. As 'objects'

and as 'things' the media are "deeply embedded in the symbolic territory of the family" (Volkmer 2006, 15), providing "actively, interactively, or passively, links between households, and individual members of households [...], and do this (or fail to do this) in complex and often contradictory ways" (Silverstone et al 1992, 15). According to the logic of the concept of 'media generations', similar and shared experiences with the media during formative years bring people together (Bolin & Westlund 2009), serving as a basis for generational identity. Conversely, different media experiences and "particular media consciousness produce media gaps which separate people" (Gumpert & Cathcart 1985, 23). Shared 'discursive practices' among members of a generation establish 'generational semantics' and a generational 'generalised other' (Corsten 1999), creating distance between people of different generations. However, common ground still exists: "the exchange between the generations also takes place through the sharing of these different semantics" (Aroldi & Colombo 2007, 39). Thus, it can be assumed that media experiences and media consciousness shared with members of another media generation may reduce perceived distances between generation groups, and vice versa, a weaker perception of generation gaps may foster the use of the media more common to another media generation (Kalmus et al 2013a).

### 'Digital generation' as a heuristic concept

In the age of digital media, the acceleration of technological and social change and the need to emphasise a firm break with the past have contributed to the elevation of the concept of 'generation' to newfound popularity in academic and media discourses (cf Aroldi & Colombo 2013). The idea of a new generation gap has fed narratives ranging from superficial labelling to more or less sophisticated analytical descriptions of "the first generation to grow up with the new digital technology" (Prensky 2001, 1). The advocates of the concept of the 'digital generation' commonly regard new media technologies as a liberating force for young people, which, in line with the very nature of the Internet medium, helps to create a generation that is more independent, investigative, immediate and innovative than any other generation before it (Tapscott 1998; Buckingham 2008). Furthermore, Internet culture in general arguably contributes to the formation of other features of the digital generation, such as openness, inclusion, free expression and sensitivity to cooperative interest (Tapscott 1998).

The classifications of the digital generation and the accompanying rhetoric have been questioned on the basis of both critical reflection on technological determinism underlying the excessive emphasis on growing up in a digital habitat, and empirical research evidencing much heterogeneity in the media

lives of contemporary youth (e.g. Buckingham 2006; Herring 2008; Helsper & Eynon 2010). Furthermore, it is questionable whether much of the current research on 'digital youth' can be defined as studies of generations. As Oscar Westlund and Lennart Weibull (2013, 149) point out, "there is no longitudinal approach, no cross-generational comparison, no historical reflections on the relations between media and society, and sociology of generations is typically absent in their theoretical frameworks". Nevertheless, in line with several others, Westlund and Weibull acknowledge that the concept of generation as such is worthwhile in media studies, although, "comparing the media use of different generations over time must be given precedence" (op cit). This chapter, similarly, employs the concept of media generations and the problematic label of the 'digital generation' as a heuristic base to measure media use characteristics of Estonian youth against those of other generation groups.

### Data and methods

The analysis is based on data from two waves of a representative survey called Me. The World. The Media, carried out every third year by the Institute of Journalism and Communication, University of Tartu, in cooperation with market research companies (Faktum and Saar Poll). The survey (a self-administered questionnaire, combined with an interview) covers the Estonian population aged between 15 and 74. A proportional model of the general population and multi-step probability random sampling is used. The first wave took place from December 2002 to January 2003 with a total sample size of 1470. To analyse changes over the period of almost ten years, data from the fourth wave of the survey, conducted in September–October 2011 (N=1510), are used. In order to alleviate the differences between the representativeness of the sample model (based on demographic statistics data) and the survey outcome, the collected data were weighted by the main socio-demographic attributes.

### Generational dynamics of the structural characteristics of new media use

This section explores the aspects of new media use that are more or less directly related to positioning in the economic and political field, i.e., digital stratification that originates mainly from socially diverse access to technological resources. 'Access', however, includes several dimensions. In addition to economic capital, education, social resources, and cognitive resources help individuals know which hardware and digital services to purchase and update, and how to 'domesticate'

them, that is, how to fit them meaningfully into one's life (Livingstone 2009). Thus, material resources and economic capacity, socialisation into the dominant culture, technical skills, and awareness of the prevalent techno-culture, as well as social networks, are all relevant factors that shape digital gaps (Selwyn 2004).

Representative population data gathered in 2002 and 2011 allow us to compare the pace of different generations' domestication and appropriation of new media technologies and the opportunities they provide for participation in the economic and political spheres. To fit this purpose, the sample was cut into six age groups, each covering ten years. The six groups represent age cohorts rather than delineating social generations in Mannheim's sense: the groups are large and internally heterogeneous, and the cut-off points in the continuum of birth years were chosen for statistical reasons. The age groups are of comparable size and, as the distance between two measurements is almost nine years, it is possible to observe how nearly the same birth cohorts' positioning vis-à-vis each other has changed in this period (see Figure 1). Furthermore, in following Spitzer's (1973) advice, we assume that, if age specific differences are historically significant, they will reveal themselves wherever the cut-offs are made in the continuum.

Media use characteristics were measured by a number of original single indicators, on the basis of which several cumulative media use indexes were calculated. To compare age groups, this chapter mainly employs the analysis of variance (ANOVA) to determine statistically significant differences in the mean values of these indicators and indexes.

In terms of the most basic indicator of a digital divide – Internet use versus non-use – gaps between generation groups appear in a linear fashion, with 15–24-year-olds being in first position in both years. By 2011, however, differences between the three youngest age groups had reduced to the minimum. The growth of Internet users in the 1938–1947 birth cohort was the slowest in absolute terms; proportionally, however, the increase was largest among the two oldest groups.

Quite similar patterns manifest in home access to the Internet, with younger cohorts tending to be better equipped than older ones. The exception is that in 2002, both the youngest generation and that of their parents, 35–44-year-olds, were better equipped than young adults aged 25–34; similarly, the latter had fewer media technologies at home than other two generations. Most probably this is a life cycle effect: while teenagers tend to take a lead in appropriating the newest media technologies in their daily lives, urging their parents to provide resources to purchase media equipment for home use, young adults may have somewhat different consumption priorities associated with starting and maintaining a household and family.

**Figure 1. Structural characteristics of new media use by age group in 2002 and 2011**

Differences between the age groups are statistically significant at  $p < .001$ .

To observe dynamics, the data cells of the same birth cohort are coloured with the same shade of blue. In each row, the two highest figures are in bold.

	All	15–24	25–34	35–44	45–54	55–64	65–74
<b>Years of birth</b>							
2002	1928–87	1978–87	1968–77	1958–67	1948–57	1938–47	1928–37
2011	1937–96	1987–96	1977–86	1967–76	1957–66	1947–56	1937–46
<b>N</b>							
2002	1470	268	304	264	232	213	189
2011	1510	261	259	273	285	251	181
<b>Users of the Internet (%)</b>							
2002	43.1	78	55.7	46.4	36.8	18.3	4.4
2011	84.7	99.6	98.2	96	86	72	39.7
<b>Home access to the Internet (%)</b>							
2002	24.4	37	26.1	32.9	25.2	13.6	2.7
2011	82.1	95.3	94.1	93.5	82.3	71.3	40.8
<b>Access to media technologies at home (index; maximum 5)</b>							
2002	3.18	3.55	3.33	3.51	3.17	2.81	2.36
2011	3.07	3.57	3.27	3.36	3.02	2.71	2.12
<b>Self-evaluated computer skills (1 = no skills; 5 = very good)</b>							
2002	3.2	3.51	3.13	3.15	2.88	2.95	2.32
2011	3.12	3.99	3.8	3.35	2.87	2.39	1.78
<b>Using the Internet for study- and work-related information*</b>							
2002	0	0.65	0.23	0.05	-0.22	-0.4	-0.62
2011	0	0.55	0.36	0.26	-0.06	-0.53	-0.97
<b>Using the Internet for political and economic information*</b>							
2002	0	0.25	0.33	0.19	-0.14	-0.34	-0.56
2011	0	0.04	0.33	0.44	0.04	-0.33	-0.85
<b>Using the Internet for political and economic participation*</b>							
2002	0	0.32	0.34	0.18	-0.13	-0.39	-0.62
2011	0	0.34	0.44	0.34	-0.02	-0.45	-1.07

\* Values of the index Z-scores (means).

With regard to home access to media technologies, the gaps between 15–24-year-olds and all other age groups had noticeably widened by 2011; moreover, the index score of the cohorts born in the 1958–1967 period and earlier had significantly dropped in the nine year gap. Such quickly developing generational

differentiation is probably due to the very fast changes in the media technological environment and the corresponding adjustments of measurement: in 2011, the list of questionnaire items in the index included more new media devices, such as the DVD player, MP3 player/iPod, smart phone, laptop, tablet, e-book reader, and scanner.

When it comes to self-reported computer skills, the youngest age group leads in both years, with older cohorts following in a nearly linear way (with minor fluctuations in 2002). It is notable that the 1978–1987 and 1968–1977 birth cohorts believed that their cognitive resources in this field had improved in nine years, while all older generation groups evaluated their computer skills considerably lower than they did in 2002.

The generation pattern of using the Internet to search for information related to one's studies and work follows a linear trend in both years. Remarkably, the differences between the youngest respondents and three previous generation groups had diminished by 2011. The relative disadvantage of the two oldest groups, on the contrary, had increased.

When it comes to searching for online information more directly related to the fields of politics and economics (such as looking for jobs, a place to live, and legal or political information), the lead, both in 2002 and 2011, was taken by the 1968–1977 birth cohort, followed by that of 1978–1987. The youngest respondents, born between 1987 and 1996, showed an index score only slightly above the sample average in 2011, which is partly due to a lesser need for that type of information during this life phase. The relative handicap of the 1958–1967 and earlier birth cohorts had amplified in nine years.

Somewhat similar patterns unfold with regard to using the Internet for political and economic participation (for forums, purchases, bank transactions, and e-services). Here, too, the 1978–1987 and 1968–1977 cohorts showed the highest activity levels in both years. The young people born between 1987 and 1996, however, shared the second position with their parents' generation.

In short, the youngest generation group, born in the 1987–1996 period, was best equipped with technology and its related cognitive resources in 2011, and made the most active use of this capital to meet information needs related to their studies and/or work. This cohort, however, ranked only second or third in terms of using the Internet for more direct participation in the political and economic fields, which is partly a life phase effect. The birth cohort of 1978–1987 displayed a very similar pattern in 2002. In nine years, this group of young people enhanced in their levels of most of the observed resources and online activities, and maintained a privileged position in the political and economic fields, being most active in using the Internet for political and economic participation. Nearly the

same holds with regard to the cohort of 1968–1977, whose resources and activity levels were far above the sample average in 2011, and who remained among the top players in the field. Although the share of Internet users and those with home access increased considerably among the cohorts born in 1958–1967 and earlier, their relative handicap in terms of perceived cognitive resources and observed online activities increased over nine years.

### Generational habitus and life-worlds as reflected in media usage

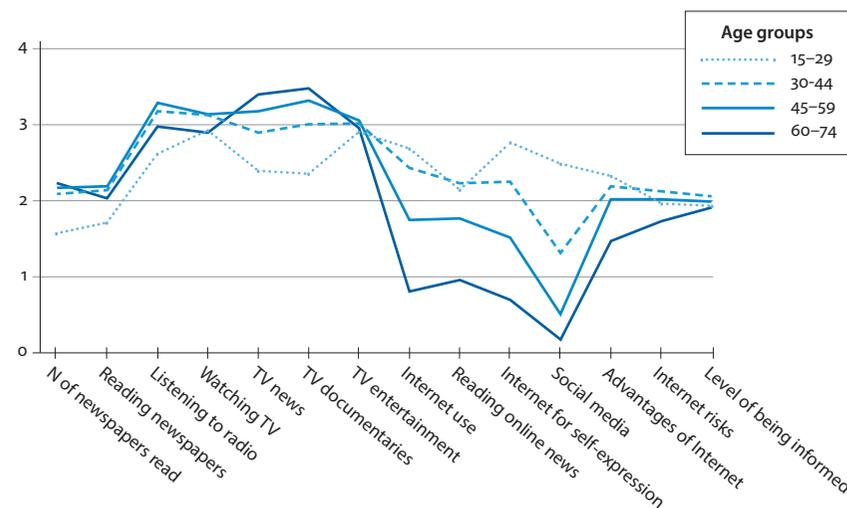
This section examines the aspects of media use that are related to 'habitus', 'taste', symbolic capital and life-worlds – specifically, the usage of media technologies and channels, the viewing preferences of TV formats, attitudes towards the advantages and risks of the Internet, and the spatial reach of media use (measured by the self-evaluated level of how well they were informed about events in their local (i.e., city or regional) environment, in Estonia, and abroad in different countries or areas). In addition, findings on more nuanced “media repertoires” (Hasebrink & Popp 2006) in terms of topic preferences and spatial orientations in media use, presented in detail elsewhere (Kalmus et al 2013a), are re-interpreted as representing generational habitus and life-worlds. This section draws, due to the lack of comparable indicators in different waves of the survey, only on the data from 2011. In taking into account life course phase and socio-historical context during their formative years, the sample was split into four age groups, each covering 14 years:

- 15–29 year olds (n=424, born between 1982 and 1996, with their formative years falling in the period after Estonia regained independence in 1991; mainly pupils and students or those who had recently entered the labour market at the time of the survey);
- 30–44 year olds (n=398, born between 1967 and 1981; people who had experienced diverse social circumstances during their formative years; mainly engaged in work and raising children);
- 45–59 year olds (n=399, born between 1952 and 1966 with their formative years falling in the Soviet period; mainly engaged in work);
- 60–74 year olds (n=289, born between 1937 and 1951 with their formative years in the Soviet period; many of them pensioners).

An analysis of patterns in media technology adoption, media channel and programme preferences, and in the perceptions of the advantages and risks of the Internet, reveals significant differences between age groups with regard to their media-related generational habitus (Figure 2). The number of different newspapers read regularly increases linearly with age, being particularly low among

**Figure 2. Use of media channels and TV formats, attitudes towards the Internet, and the spatial reach of media use by age group, 2011**

Mean values of the indexes



the youngest generation group (15–29-year-olds). Similarly, the frequency of watching more serious TV formats (news broadcasts as well as talk shows and documentaries) increases linearly with increasing age. Television entertainment appears to be the only format that bridges the gaps between generation groups, probably due to its versatility and appeal to a wide range of audience groups.

When it comes to consuming traditional media (newspapers, radio, and TV) in terms of use frequency and the versatility of channels followed, the linear pattern is broken, with the oldest group being somewhat less active compared to the two preceding age cohorts. In this respect, people aged 30–44 and 45–59 form a rather coherent group. In addition, these two cohorts have similar assessments of the level of risk introduced by the Internet.

Another, completely opposite, linear tendency unfolds with regard to use of new media for various purposes. In this respect, the two youngest groups (15–29 and 30–44-year-olds) show figures considerably higher than the sample average, confirming “an often held claim that young people are more inclined to explore and use new media technologies” (Bolin & Westlund 2009, 109). Not surprisingly, the two youngest cohorts are also most eager to celebrate the advantages of the Internet.

The only exception to fully linear patterns of new media use across age groups has to do with reading online newspapers and news portals: 30–44-year-olds are more active than the youngest group in this respect.

When it comes to the spatial reach of media use, the two middle-aged groups display a somewhat higher level of being informed about events in various parts of the world. The differences between cohorts, however, are statistically insignificant.

These trends allow composite sketches to be made to compare the younger generations of Estonia against older age groups. In line with the findings about digital stratification presented in the previous section, the youngest age group (15–29-year-olds, born between 1982 and 1996) has been highly successful in their swift domestication of new media technologies: they are the most active and multifaceted in using computers and the Internet, and they demonstrate the strongest attitudes of the advantages of this medium. The intensity and functional versatility of using the newest platform – social media –, together with creative and communicative uses of the Internet, is the aspect of new media use where the youngest cohort's head start, compared to 30–44-year-olds and older groups, is greatest. Conversely, this generation is most passive in consuming traditional media, particularly in news, talk shows, and documentary formats.

When it comes to a more nuanced picture of “media repertoires” (Hasebrink & Popp 2006), the youngest cohort is, most remarkably, characterised by a low interest in media topics related to the natural environment, history, and rural life as well as politics and society, and high enthusiasm with regard to cultural activities and leisure time, celebrities and scandals, and economic and technological matters (Kalmus et al 2013a). Furthermore, the youngest generation, together with the 30–44-year-old cohort, has the strongest orientation towards using Western media channels, which can partly be explained by their better knowledge of English (and Finnish), but may also indicate a decrease of the ‘ideological’ perception of social space among younger age groups, found in previous studies (e.g. Masso 2011).

The group of 30–44-year-olds (born between 1967 and 1981) stands out by virtue of very active and versatile consumption of both traditional and new media. They are the keenest readers of online newspapers and news portals, which probably explains the lower frequency of watching TV news in this cohort, compared to the two older groups. At the same time, 30–44-year-olds demonstrate high reflexivity with respect to new media, as shown by high assessments of the advantages as well as risks of the Internet. An explanation probably lies in a large proportion of parents in this age cohort who are facing the challenge of mediating, that is, guiding and/or regulating, their children's online activities (Kalmus 2012).

In terms of thematic interests, the specific “media diet” (Aroldi & Colombo 2007) of 30–44-year-olds resembles, with minor variation, that of the youngest generation, demonstrating very clearly the divergence of topical preferences between people aged below 45 and above 45 (Kalmus et al 2013a). The spatial orientation of 30–44-year-olds bears similarities with the youngest generation in regard of active use of Western media, while their high interest in local media channels reveals affinity with the cohort of 45–59-year-olds (op cit).

### **Perception of intergenerational differences – a reflexive aspect of constructing generations**

Perception of intergenerational differences was measured in 2011 with an index formed of four pairs of oppositional assertions about the phenomenon (for example “Young and old people usually have nothing to talk with each other about” versus “Young and old people generally find common conversation topics quite easily”). The index value (on a scale ranging from 0 to 4) was highest (1.96) among 60–74 year-olds and lowest in the group of 30–44 year-old people (1.79). These differences, however, were not statistically significant, indicating that generation groups share quite a common understanding of the extent of the generation gap.

To test a theory-driven assumption postulated in the conceptual framework of this chapter, that media experiences and media consciousness shared with members of another media generation may reduce perceived distances between generation groups (cf Gumpert & Cathcart 1985; Corsten 1999; Aroldi & Colombo 2007), we conducted a linear regression analysis. We used various indicators of media use and media consciousness, such as the above-described indexes of media use, attitudes towards the Internet and the spatial reach of media use, and the factor scores of the factors of media topic preferences (measured with 38 questionnaire items, representing all spheres of media content from politics to family life; see Kalmus et al 2013a for details) as predictors. First we ran a correlation analysis including all indicators of media use and media consciousness that could be considered significant based on the theoretical assumptions. Subsequently, the variables that were significantly correlated with the index of perception of intergenerational differences were entered as predictors in linear regression models (run on the whole sample and separately on the four age groups). The final best-fitting models include only those variables that turned out to be statistically significant predictors in at least one of the five models (Figure 3).

In general, a weaker perception of intergenerational gaps is related to more active and versatile media consumption, except for the use of social media.

**Figure 3. Perception of intergenerational differences as predicted by media use preferences, attitudes towards new media technologies and spatial reach**

Linear regression models; statistically significant regression coefficients ( $\beta$ ) are in bold

	All		15–29		30–44		45–59		60–74	
	$\beta$	<i>p</i>								
Watching TV (frequency and versatility)	<b>-0.06</b>	0.02	<b>-0.12</b>	0.03	<b>-0.11</b>	0.03	-0.03	NS	0.02	NS
Reading online newspapers and news portals	<b>-0.08</b>	0.03	0.02	NS	-0.06	NS	<b>-0.20</b>	0.01	0.06	NS
Internet use (versatility)	-0.07	NS	0.05	NS	-0.01	NS	-0.03	NS	<b>-0.28</b>	0.00
Frequency of using different social media	0.02	NS	-0.02	NS	-0.07	NS	<b>0.11</b>	0.05	<b>0.16</b>	0.02
Perception of the advantages of the Internet	<b>0.11</b>	0.00	0.09	NS	<b>0.17</b>	0.00	<b>0.15</b>	0.01	0.01	NS
Perception of Internet risks	<b>0.08</b>	0.01	0.06	NS	0.05	NS	<b>0.14</b>	0.01	0.11	NS
Self-evaluated level of being informed	<b>-0.09</b>	0.00	-0.08	NS	-0.07	NS	-0.07	NS	<b>-0.19</b>	0.00
Interest in politics, society	<b>0.09</b>	0.00	0.04	NS	0.09	NS	<b>0.14</b>	0.01	0.05	NS
<b>Model fit: <math>R^2</math></b>	0.05		0.04		0.07		0.09		0.08	

Particularly, in the case of the two younger age groups, more frequent and versatile TV watching is associated with a smaller perceived distance from other generations. Furthermore, middle-aged people (45–59 years old) tend to feel themselves to be more similar to other generations when they read more news online. In the case of the oldest age group, versatile Internet use is soundly related to stronger feelings of having a common ground with younger generations. In addition, the wider the self-evaluated spatial reach among the oldest respondents, the more they feel they have in common with younger people.

Interestingly, a more frequent use of social media is related to a stronger perception of intergenerational differences among the two older age groups. This may be explained by the astonishment or even annoyance experienced by members of the parents' and grandparents' generations when following their children's or grandchildren's postings on social media, and the subsequent realisation of how different young people's discursive practices are from their own (for a qualitative description of this phenomenon see Tamme & Siibak 2012).

The perception of the different aspects of the Internet's uses is positively correlated with the perceived distance between generations. This association manifests

significantly among two middle age groups who stand between the youngest and the oldest generation with regard to the extent of incorporating the Internet into daily practices. The very fact of being located in such an intermediary zone of domesticating new technology may foster a mental pattern according to which heightened perception of the advantages and/or risks of the Internet is related to a sharpened feeling of gaps between generations, reflecting the social constructions of generation groups as highly different in their Internet usage.

A deeper interest in media topics related to politics and society is also positively correlated with the perception of intergenerational differences, being statistically significant in the group of 45–59-year-olds. Here a higher sensitivity towards social issues apparently goes hand in hand with a finer perception of gaps between generations as social groups.

## Conclusions

The characteristics of media use and perception of the related cognitive aspects outlined in this chapter allow us to interpret the crucial distinctions between age groups as indicating different 'media generations'. The youngest age groups have welcomed their 'fresh contacts' (Mannheim 1952 [1927/1928]) with digital media much more enthusiastically. In particular, the cohort born in 1982–1996 displays a number of media use features attributed to the "digital generation" (Papert 1996; Siibak 2009), such as using the Internet extensively for social networking, self-expression, and communication. Furthermore, their media use patterns correspond to their self-characterisation as the "Facebook generation", which came to light in a focus group interview with young Estonian people born between 1990 and 1995 (see Opermann 2013).

The oldest age groups in Estonia have remained faithful to the traditional media they consumed during their childhood or youth, and demonstrate a certain reluctance to adopt new media forms. For that matter, the cohorts born in the 1937–1951 and 1952–1966 periods possess several traits characteristic to the "radio/print generation" and the "TV generation" (Bolin & Westlund 2009), respectively. As people born between 1967 and 1981 display – compared to the youngest age group – a greater inclination towards traditional news media and lesser intensity and versatility of social media use, they seem to form an "intermediary or buffer generation" (cf Pilcher 1994) between the "TV generation" and the "digital generation".

In terms of vertical digital stratification and active online participation in the political and economic fields, a division line seems to run between the cohorts born in the 1968–1996 period and the older age groups. The younger generations,

well equipped with technological and cognitive resources, have made active use of this capital to meet the information needs related to their studies and/or work and to become and remain top players in online political and economic participation. The younger cohorts, thus, have actively responded to the opportunities and affordances provided by their “generational location” on the unfolding developmental track of information and communication technologies, thus acquiring features of “generation as an actuality” (Mannheim 1952 [1927/1928]). Despite the cohorts born in the 1958–1967 period and earlier having increased their technological capital considerably within the decade under observation, their relative handicap in terms of cognitive resources and online activities has amplified.

When it comes to horizontal differentiation in terms of lifestyle-related aspects of media use, membership of a generation, again, plays a significant role. Differences in media-related generation habitus tend to manifest in linear patterns: use of traditional media channels and more serious TV formats increases with increasing age while using new media for various purposes shows the opposite tendency. Furthermore, the analysis presented in detail elsewhere (Kalmus et al 2013a) revealed very clearly the divergence of topic preferences between people born before or after the mid-1960s, that is, the younger generations' lower interest in political, historical, and environmental issues, as well as the cross-generational trends in changing spatial orientations of media use – following the age-bound trajectory from Russian media across local media towards global media. Quite remarkably, generation distinctions in channel and topic preferences and spatial orientations do not result in significant differences in the spatial reach of media use, measured by the self-evaluated level of being informed about events in various parts of the world. If we treat the latter as an indicator of the amount of cultural capital, we can argue that horizontal differentiation in generation 'media diets' and media 'tastes' does not imply inequality in terms of this form of capital.

The findings presented in this chapter, particularly the structural characteristics of new media use, rather justify the discursive construction of the young as the 'digital generation'. Nevertheless, the boundary of the 'digital generation' remains vague, extending, according to some qualities, to as far as those born in the late 1960s. A probable cause, on top of lifespan position (being still young enough to 'learn new tricks'), may lie in the fact that the cohorts born in the late 1960s and in the 1970s experienced very rapid changes and different social conditions during their formative years, which may have fostered their adaptability to all kinds of innovation. Similarly, several respondents in a qualitative study of Estonian people born in the 1970s stated that the chaotic 1990s defined their generation as “creative, adaptable to changes and adjustable to new social contexts”

(Nugin 2010, 353). Furthermore, it may be fruitful to abandon the view of the role of the media in 'generationing' – defining the identity and self-consciousness of generations (Alanen 2001) – “as a kind of technological imprinting that took place in a precise, defined moment” and see it “rather as a diachronic, cultural process” (Aroldi & Colombo 2013, 180). By the same token, I suggest describing the unfolding process outlined in this chapter as the digitisation of media generations, which is most clearly observable among the young born between 1982 and 1996.

It is also important to reckon with the theoretical postulate that digital stratification and social stratification are dialectically related: not only does digital differentiation create and reproduce social stratification, but social inequalities also shape digital distinction, including variation within the very 'digital generation'. The focus of this chapter did not cover empirical checks on the homogeneity of the 'digital generation' or possible 'generational units' (Mannheim 1952 [1927/1928]) in it. Our previous analyses (Kalmus et al 2011; 2013b), nevertheless, warn against overlooking individual variation in younger generations. Although age variables tend to be the strongest predictors of the Internet use frequency and the main use motives, other socio-demographic characteristics (such as gender, ethnicity, education, income, and social status) also contribute to predicting the intensity of and/or motives for Internet use.

The chapter touched upon the reflexive aspect of constructing generations by analysing perception of intergenerational differences as related to media use preferences and attitudes towards new media technologies. The assumption about the relationship between media-related experiences and consciousness, shared with members of another media generation, and perception of intergenerational differences was partially confirmed. In the two younger age groups, more active TV watching, as a shared media experience with older cohorts, was associated with weaker perception of generational gaps. Among the oldest respondents, analogous relationships appeared with respect to versatile Internet use and a wide spatial horizon. Unforeseen, though easily interpretable, findings came to light in the case of social media use that seems to make younger cohorts' distinctive “generational semantics” (Corsten 1999) particularly evident for older age groups, contributing to a stronger perception of intergenerational differences. In other words, discursive practices on social media apparently epitomise conflicting socialisation practices, expectations, and tastes of generational cohorts (cf Bourdieu 1993), creating intergenerational misunderstanding. Interestingly, this interpretive nuance binds together the discursive and reflexive aspects of constructing generations, and supports the thesis about a crucial role of ever-emerging new media channels as discursive sites in the process of 'generationing'.

## References

- Adam, B. (2003) Reflexive modernization temporalized, *Theory, Culture & Society* 20 (2), 59–78.
- Alanen, L. (2001) Childhood as generational condition: children's daily lives in a central Finland town. – Alanen, L. & Mayall, B. (eds) *Conceptualizing Child-Adult Relations*, 129–143. Routledge, London.
- Anderson, S. (2001) History TV and popular memory. – Edgerton, G. R. & Rollins, P. C. (eds) *Television Histories: Shaping Collective Memory in the Media Age*, 19–36. University Press of Kentucky, Lexington.
- Aroldi, P. & Colombo, F. (2007) Generational belonging and mediascape in Europe, *Journal of Social Science Education* 6 (1), 34–44.
- Aroldi, P. & Colombo, F. (2013) Questioning 'digital global generations': a critical approach, *Northern Lights: Film & Media Studies Yearbook* 11 (1), 175–190.
- Bolin, G. & Westlund, O. (2009) Mobile generations: The role of mobile technology in the shaping of Swedish media generations, *International Journal of Communication* 3, 108–124.
- Bourdieu, P. (1984 [1979]) *Distinction: A Social Critique of the Judgement of Taste*. Harvard University Press, Cambridge.
- Bourdieu, P. (1993) *Sociology in Question*. Sage, London.
- Bruns, A. (2006) Towards produsage: Futures for user-led content production. – Sudweeks, F., Hrachovec, H. & Ess, C. (eds) *Proceedings: Cultural Attitudes Towards Technology and Communication 2006*, 275–284. Murdoch University Press, Murdoch.
- Buckingham, D. (2006) Is there a digital generation? – Buckingham, D. & Willett, R. (eds) *Digital Generations: Children, Young People, and New Media*, 1–13. Lawrence Erlbaum Associates, New York, London.
- Buckingham, D. (2008) Introducing identity. – Buckingham, D. (ed) *Youth, Identity, and Digital Media*, 1–24. The MIT Press, Cambridge.
- Corsten, M. (1999) The time of generations, *Time & Society* 8 (2–3), 249–272.
- Corsten, M. (2011) Media as the historical new for young generations. – Colombo, F. & Fortunati, L. (eds) *Broadband Society and Generational Changes*, 37–49. Peter Lang, Frankfurt am Main.
- Edmunds, J. & Turner, B. S. (2002) *Generations, Culture and Society*. Open University Press, Buckingham, Philadelphia.
- Eyerman, R. & Turner, B. S. (1998) Outline of a theory of generations, *European Journal of Social Theory* 1 (1), 91–106.
- Gumpert, G. & Cathcart, R. (1985) Media grammars, generations and media gaps, *Critical Studies in Mass Communication* 2 (1), 23–35.
- Hasebrink, U. & Popp, J. (2006) Media repertoires as a result of selective media use: a conceptual approach to the analysis of patterns of exposure, *Communication* 31 (3), 369–387.
- Helsper, E. J. & Eynon, R. (2010) Digital natives: where is the evidence?, *British Educational Research Journal* 36 (3), 503–520.
- Herring, S. C. (2008) Questioning the generational divide: technological exoticism and adult construction of online youth identity. – Buckingham, D. (ed) *Youth, Identity, and Digital Media*, 71–94. The MIT Press, Cambridge.
- Hutchby, I. (2001) *Conversation and Technology: From the Telephone to the Internet*. Polity Press, Cambridge.
- Kalmus, V. (2012) Making sense of the social mediation of children's internet use: perspectives for interdisciplinary and cross-cultural research. – Wijnen, C. W., Trültzsch, S. & Ortner, C. (eds) *Medienwelten im Wandel: Kommunikationswissenschaftliche Positionen, Perspektiven und Konsequenzen. Festschrift für Ingrid Paus-Hasebrink*, 137–149. Springer VS, Wien.
- Kalmus, V. & Roosalu T. (2012) Institutional filters on children's Internet use: an additional explanation of cross-national differences in parental mediation. – Walrave, M., Heirman, W., Mels, S., Timmerman, C. & Vandebosch, H. (eds) *e-Youth: Balancing between Opportunities and Risks*, 235–250. Peter Lang, Brussels.
- Kalmus, V., Realo, A. & Siibak, A. (2011) Motives for Internet use and their relationships with personality traits and socio-demographic factors, *Trames* 15 (65/60), 385–403.
- Kalmus, V., Masso, A. & Lauristin, M. (2013a) Preferences in media use and perception of inter-generational differences among age groups in Estonia: a cultural approach to media generations, *Northern Lights: Film & Media Studies Yearbook* 11 (1), 15–34.
- Kalmus, V., Talves, K. & Pruulmann-Vengerfeldt, P. (2013b) Behind the slogan of "e-state": digital stratification in Estonia. – Ragnedda, M. & Muschert, G. W. (eds) *The Digital Divide: The Internet and Social Inequality in International Perspective*. Routledge Advances in Sociology, 193–206. Routledge, London.
- Lauristin, M. (2004) Eesti ühiskonna kihistumine. – Kalmus, V., Lauristin, M. & Pruulmann-Vengerfeldt, P. (eds) *Eesti elavik 21. sajandi algul: ülevaade uurimuse "Mina. Maailm. Meedia" tulemustest*, 251–285. Tartu Ülikooli Kirjastus, Tartu.
- Lindemann, K. (2011) The changing perception of social position. – Saar, E. (ed) *Towards a Normal Stratification Order: Actual and Perceived Social Stratification in Post-Socialist Estonia*. Baltische Studien zur Erziehungs- und Sozialwissenschaft 19, 481–500. Peter Lang, Frankfurt am Main.
- Livingstone, S. (2009) *Children and the Internet: Great Expectations, Challenging Realities*. Polity Press, Cambridge.
- Lovell, S. (2007) Introduction. – Lovell, S. (ed) *Generations in Twentieth-Century Europe*, 1–18. Palgrave Macmillan, New York.
- Mannheim, K. (1952 [1927/1928]) The problem of generations. – Mannheim, K. *Essays on the Sociology of Knowledge*, 276–322. Routledge & Kegan Paul, London.
- Marada, R. (2004) Social construction of youth and formation of generational awareness after socialism. – Mareš, P. (ed) *Society, Reproduction and Contemporary Challenges*, 149–168. Barrister & Principal, Brno.
- Masso, A. (2011) Rethinking of social space: generational and ethnic differences in Estonia, *Geopolitics* 16 (4), 902–925.
- Nugin, R. (2010) Social time as the basis of generational consciousness, *Trames* 14 (4), 342–366.

- Opermann, S. (2013) Understanding changing news media use: generations and their media vocabulary, *Northern Lights: Film & Media Studies Yearbook* 11 (1), 123–146.
- Papert, S. (1996) *The Connected Family: Bridging the Digital Generation Gap*. Longstreet Press, Atlanta.
- Pilcher, J. (1994) Mannheim's sociology of generations: an undervalued legacy, *British Journal of Sociology* 45 (3), 481–495.
- Prensky, M. (2001) Digital natives, digital immigrants, *On the Horizon* 9 (5), 1–6.
- Runnel, P. (2009) *The Transformation of the Internet Usage Practices in Estonia*. Dissertationes de Mediis et Communicationibus Universitatis Tartuensis 8. Tartu University Press, Tartu.
- Runnel, P., Pruulmann-Vengerfeldt, P. & Reinsalu, K. (2009) The Estonian tiger leap from post-communism to the information society: from policy to practice, *Journal of Baltic Studies* 40 (1), 29–51.
- Selwyn, N. (2004) Reconsidering political and popular understandings of the digital divide, *New Media & Society* 6 (3), 341–362.
- Siibak, A. (2009) *Self-Presentation of the 'Digital Generation' in Estonia*. Dissertationes de Mediis et Communicationibus Universitatis Tartuensis 7. Tartu University Press, Tartu.
- Silverstone, R., Hirsch, E. & Morley, D. (1992) Information and communication technologies and the moral economy of the household. – Silverstone, R. & Hirsch, E. (eds) *Consuming Technologies: Media and Information in Domestic Spaces*, 15–31. Routledge, London.
- Spitzer, A. B. (1973) The historical problem of generations, *American Historical Review* 78, 1353–1385.
- Spurk, J. (2004) Simultaneity within non-simultaneity?: continuity, rupture, emergence – on the temporal dynamic of social formation, *Time & Society* 13 (1), 41–49.
- Tallo, A. & Terk, E. (1998) The generations in Estonia's transition period. – Terk, E. (ed) *Estonian Human Development Report*, 14–16. UNDP, Tallinn.
- Tamme, V. & Siibak, A. (2012) Enhancing family cohesion through web-based communication: analysis of online communication practices in Estonian families, *Networked Belonging and Networks of Belonging – COST ACTION ISO906* (special issue). *Observatorio (OBS\*) Journal*, 1–28.
- Tapscott, D. (1998) *Growing Up Digital: The Rise of the Net Generation*. McGraw-Hill, New York.
- Vittadini, N., Siibak, A., Bilandzic, H. & Carpentier Reifová, I. (2013) Generations and media: the social construction of generational identity and differences. – Carpentier, N., Schröder, K. C. & Hallett, L. (eds) *Audience Transformations. Shifting Audience Positions in Late Modernity*. Routledge Studies in European Communication Research and Education, 65–81. Routledge, London.
- Volkmer, I. (2006) Introduction. – Volkmer, I. (ed) *News in Public Memory: An International Study of Media Memories across Generations*, 13–17. Peter Lang, New York.
- Weber, M. (1978 [1922]) *Economy and Society: An Outline of Interpretive Sociology*. California University Press, Berkeley.

Westlund, O. & Weibull, L. (2013) Generation, life course and news media use in Sweden 1986–2011, *Northern Lights: Film & Media Studies Yearbook* 11 (1), 147–173.

Witte, J. C. & Mannon, S. E. (2010) *The Internet and Social Inequalities*. Routledge, New York, London.

## Notes

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