"Media Micro-Generations"

How New Technologies Change Our Media Morality

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Abstract

This article proposes and explores the notion of "media micro-generations". Based on a survey of values and norms in relation to media-related behaviour in Sweden, we identify statistically significant media micro-generations. Through an analysis of the technologies that were introduced during the formative years of different media micro-generations, we propose that media micro-generations are formed with the introduction of new media technologies. Thus, the existence of media micro-generations illustrates how rapid transformations of media technologies can shape the moral notions of narrow age groups. It also explains why many earlier studies have detected a rather large span of years (1970-1985, in between the TV generation and the internet generation) during which no generational identity seems to have been formed.

Keywords: media micro-generation, media technology, morality, manners of politeness, decorum

Introduction

The concept of media generations has been widely discussed, inside as well as outside academia. The emergence of a digital media society has triggered discussions about the consequences of growing up with digital media, and a wide range of terms has been introduced: "net generation" (Tapscott 1998), "digital natives" (Prensky 2001), "digital generation" (Buckingham & Willett 2006; Taipale 2016; Fortunati, Taipale & de Luca 2017), "web generation" (Hartmann 2003), "Google generation" (Gunter, Rowlands & Nicholas 2009), "igeneration" (Rosen 2010), "broadband generation" (Colombo & Fortunati 2011), "new media generation" (Westlund & Färdigh 2012) and "social media generation" (Huang 2014). Other academic studies have dealt with the role of the media in the shaping of generations but without the same conceptual claims (cf. Kertzer 1983; Corsten 1999; Volkmer 2006; Bolin & Westlund 2009; Burnett 2010; Westlund & Weibull 2013; Opermann 2014; Bolin 2017). The general assumption behind these studies is that media experiences produce "media gaps which separate people", something that Gumpert and Cathcart (1985) claimed long ago. In essence, the claim is that the media technologies to which we are introduced early in life are

particularly important to us, not least since they continue to shape our subsequent experiences and give rise to distinct media generations (Gumpert & Catchcart 1985; cf. Bolin 2017).

Media research has developed the theoretical legacy of Karl Mannheim's "problem of generations" (Mannheim 1928/1952). However, media generations have primarily been approached as age cohorts (cf. Helsper & Enyon 2010; Flanagin & Metzger 2011; Gardner & Davies 2013; Ahn & Jung 2016) or kinship (Clark 2009), and the primary focus of attention has been the younger generations and digital technologies (cf. Westlund & Weibull 2013). Bolin and Westlund (2009) argue that too much attention has been given to digital technologies or networks as such, and comparatively little focus has been on the way media technologies are actually being used across generations (see also Westlund & Färdigh 2012). This means that previous research on media generations is marked to some extent by a mismatch between what is theoretically argued and what is empirically examined: While theoretical discussions have claimed that generations are characterised by age cohorts that share a sense of community, with special attention to processes of "generationing" (Vittadini & Siibak 2012) and the growing together as a generation (Bolin 2017; Naab & Schwarzenegger 2017), empirical examinations have largely been based on age cohorts alone.

Taking Mannheim's theoretical legacy and its focus on shared generational values and meaning-making as a vantage point, in this article, we analyse media generations in relation to cultural understandings of "right and wrong" in media culture, which we conceptualise as "media morality". This builds on Gumpert and Catchcart's idea that the media technologies we encounter, particularly during the formative years of our youth, shape what we conceptualise and consider to be acceptable ways of treating others in various social situations. Based on historical research illuminating the consequences of different new media technologies, Gumpert and Cathcart suggest that "media generations" are likely to be more important than "chronological generations" (Gumpert & Cathcart 1985; cf. Bolin 2017). Through a very close analysis of the media morality of the Swedish population, we argue that significant aspects of media morality can appear on a very detailed level, and that the formation of these micro-generations can be understood by the quickly changing media repertoires in certain periods of time.

Linking shared norms in some specific, and very narrow, age cohorts to fresh contact with new media technologies will also show how rapid technological change can *counteract* the formation of larger media generations and instead give rise to media micro-generations – narrow age groups that share "fresh contact" with specific media technologies during their childhood and youth, i.e. their "formative years" (Mannheim 1928/1952). In this way, we contribute to the research on media generations in three distinct ways: First, we bypass the questions of access to the media and media use in order to instead focus on cultural ideas of right and wrong in everyday life with digital media. We call these notions of right and wrong "media morality", and the existence of shared notions is crucial for our understanding and construction of media micro-generations. Second, when analysing the relation between media morality and fresh contact with media technologies, we focus on all age groups, not just young people. Third, we make detailed analyses at a micro-generational level and connect statistically significant differences in media morality with the emergence of media technologies during the formative years.

While Mannheim's (1928/1952) separation between generation as location and generation as actuality is the vantage point for our analysis, we will not be able to prove whether the age groups actually feel a sense of "we" or not (i.e. whether or not they can actually be regarded as generations in terms of actuality). Instead, we argue that media generations can be constructed from the existence of shared norms and values, here analysed specifically in relation to digital culture. This is a way to move beyond the large, and largely discussed, generational differences between age groups that grew up in different macro "media systems" – print media, electronic media, and digital media – and to pinpoint the link between generational formation and new media technologies on a micro level.

Generational theory and media generations

Generations are often discussed as a twofold concept; while they have a biological dimension (that of kinship), they are also social constructions (Burnett 2010). Mannheim (1928/1952), the "father" of the latter idea, conceived generations as groups of people who are not only born during approximately the same time period (and in the same place), but also share the same "location in history" (meaning that they have come to develop similar worldviews). Mannheim meant that the formation of generations is dependent on sudden social changes, and that generational self-awareness arises from experiences of these changes and results in common generational beliefs. Consequently, Mannheim made a distinction between generation as location, people who belong to a particular space-time, and generation as actuality.

Generation as actuality refers to individuals who are not only born in a particular space-time, but are also formed by historical events or shifts during the formative phase of their lives. By their shared experiences, mental order or common culture, these individuals are bound together by generational cohesion or consciousness (Opermann, 2013). Generational location is a key aspect in the collective experiences of generations, as the historical conditions during the formative years shape the worldview of (groups of) people. Despite the existence of generational units – fractions within a generation that differ from each other in various ways – Mannheim meant that generations are social locations that are as important to us as belonging to different social classes (but from a diachronic rather than a synchronic point of view) (Mannheim 1928/1952).

The idea of generation as actuality is built on the assumption that people that share a certain historical context are bound together by this experience. The emphasis on a shared worldview and sense of community means that not every kinship generation will develop a distinct generational consciousness; that is to say, not every kinship generation will form a generation in the socially constructed way (cf. Edmunds & Turner 2002). Siibak, Vittadini and Nimrod (2014) claim that nailing down a generation is difficult, as it boils down to whether or not the members of the generation think of themselves as a "we". Opermann writes:

> [O]ne can define a social generation (distinguished from the kinship generation) as a group of individuals, usually of similar ages, who have experienced a noteworthy social (or historical) event within a set period of time. A key point, however, is that this major change has to occur, and has to involve the individuals during their youth, thus, shaping their lives, as later experiences will tend to receive meaning from those early experiences. (Opermann 2014: 48)

The idea of the formation of generations mainly builds on two of Mannheim's theoretical concepts: "fresh contact" and "formative years". Fresh contact describes what happens when an age cohort meets something fundamentally new; something that arises from the historical or cultural situation they are in and can lead to a change in mentality and practices (Mannheim 1928/1952: 293).

Through these "fresh contacts", generational experiences are formed, and these experiences are assumed to have an impact on all later experiences. Fresh contacts have their most important impact during a person's (and an age cohort's) formative years. Mannheim meant that the formative years are the ones between 15 and 25 years of age. However, this age span has been discussed by, for example, Aroldi and Colombo (2007), who argue that the formative period today encompasses childhood, adolescence, as well as early adulthood.

In line with Mannheim's emphasis on the importance of fresh contact, it follows that the media technologies and media content that we encounter during our formative years are the (native) media that will form all our subsequent media experiences (Gumpert & Cathcart 1985; cf. Bolin 2016). Today, many researchers put forward the role of the media in creating these generationally shared worldviews (Edmunds & Turner 2002; Buckingham & Willet 2006; Siibak & Vittadini 2012; Opermann 2013; Hepp, Berg & Roitsch 2015; Bolin 2017). Bolin and Westlund (2009) argue that the kind of media technology to which one is introduced during the formative years can be the kind of medium to which one keeps connecting during the rest of one's life. As mentioned earlier, many scholars have based the existence of several different "media generations" on this claim.

Depending on the character and pace of significant events, some generations span over a large number of years, while others span over only a few.[1] When it comes to media generations, this variation depends upon the quantitative and qualitative shifts of media technologies during different time periods, and these shifts can consequently counteract the formation of broader media generations. However, instead of theorising on the technological counteraction of the formation of generations, we would like to propose the concept of "media micro-generations".

Media micro-generations are groups of people who are born during a very short time span, but whose cultural norms and senses of right and wrong differ significantly from that of other age groups due to the introduction of specific new technologies. While the concept of micro-generations may seem to have similarities with the concept of "generational units", micro-generations are *diachronically* organised fractions, while generational units instead describe *synchronically* organised fractions within a specific generation (e.g. class). The concept of micro-generations has so far merely been used in the discourse of micro-generation technologies in energy production development (e.g. Bergman & Eyre 2011; Claudy, Michelsen & O'Driscoll 2011; Mithraratne 2009; Scarpa & Willis 2010), but shall in this context be understood from a cultural perspective.

Analysing micro-generations through media morality

Opermann argues:

> Since Mannheim defined generations as cultural constructions that participate in historical processes, being primarily led by individuals' consciousness and not

so much by their social origin and status, the leitmotiv of his theory might first of all be an ambition for a broader interpretation of the intellectual, and not merely instrumental, phenomenon of generations. (Opermann 2014: 237)

We take this claim as our vantage point and focus in particular on the intellectual aspect, or the "cultural panorama" (Aroldi & Colombo 2007), of generations. This aim to capture the "predominant ideas" (Aboim, Vesconcelos & Wall 2013) or "values" (Kalmus, Masso & Lauristin 2013) of media cultures is operationalised through what we delineate as media morality. In a broad sense, media morality relates to people's notions of how to deal with the media in everyday life; more specifically, it is about norms concerning how to deal with the media in relation to others. We aim to capture (generation-based) variations in the moral understandings of digital culture by asking questions about ethical dilemmas that are particularly pertinent in digital culture (cf. Ess 2009), in this case revolving around general aspects of privacy, authenticity, as well as various concerns about others. More specifically, our empirical investigation focuses on different aspects of social interactions involving digital media, which theoretically is related to what Erving Goffman refers to as "manners of politeness" and "decorum" (Goffman 1959). Decorum refers to a set of behaviours where an actor presents him-/herself in the visual or audio range of others.[2]

Instead of delineating media generations due to differences in access or use patterns, we thus focus on media morality as an indication of common worldviews. Then, we trace the differences in values and norms back to the emergence of media technologies during the respondents' formative years. In doing this, we follow Ponte's and Aroldi's (2013: 168) suggestion to understand generations by focusing on their "common view of the 'historical new'" and how they "develop similar reactions in response to their problems and opportunities". In this article, our empirical focus is on the morality of digital media, not of media technologies more broadly.

Unlike much of the previous research, which looked at broader notions of social change and waves of social movements (cf. Eyerman & Turner 1998), we focus on norms and values from a micro dimensional perspective, linking the differences in the media morality of different micro-generations to the very specific media technologies of their formative years. Opermann (2014) points out that it is difficult to measure and delimit generations solely with quantitative data, but by combining an analysis of the media morality of various age groups with a micro-oriented focus on the emergence of specific media technologies during their formative years, we add micro-level knowledge to our understanding of the emergence of media generations.

Data

The data used come from the National SOM Survey, an annual survey carried out by the SOM-Institute at the University of Gothenburg, Sweden. Using the Swedish National Population Register as the sampling frame, the survey is sent to a sample of randomly selected individuals every autumn. Here, we used the survey from 2014. It was sent to 3,400 respondents between the ages of 16 and 85; the response rate was 54 per cent.

To test the quality of the sample, demographics were compared between the Swedish population (using official statistics) and the sample of respondents. While the com-

parisons show that the differences between the sample and the population are rather small, some groups tend to answer the survey to a lesser extent than others, which leads to skewness between the general population and those answering the survey. The SOM-survey has, over time, experienced an increased divergence between men and women, in that women tend to be more willing to participate in the survey. However, more important in relation to this study are the growing difficulties in receiving answers from respondents in younger age cohorts (15-29 years of age). This is mainly explained by problems in finding the correct telephone number and address, an increasing problem in survey analysis in general. To compensate for this under-representation, we used an age weight variable provided by the SOM-Institute. When using this kind of post stratification technique, there is however always a risk that the group answering the survey differs from those choosing not to answer, which should be kept in mind when generalisations of the results are discussed (Vernersdotter 2015).

We used seven proposals to capture the dimensions of media morality. They measure digital media politeness and decorum and relate to aspects of internet/social media use, as well as how mobile phones are used in interactions with others. The respondents were requested to agree or disagree with four alternatives (agree totally, partly, hardly, not at all). The proposals asked to what extent the following behaviour was "acceptable" or "unacceptable":

1. To use the mobile phone while having dinner with your partner.

2. To use a fake identity on the internet.

3. To use the speaker on the phone without permission.

4. To tag or check in other persons on social media without permission.

5. To use pictures someone else uploaded in social media.

6. To talk about your private life on the mobile phone so that other people can hear you.

7. To improve pictures of yourself before posting them on social media.

To receive a single measure of media morality, these items were computed into a composite index. The reliability check of the index shows high internal reliability and consistency (Cronbach's alpha =.85), which is a strong indication of a common underlying dimension in the answers. While the original questions are measures on an ordinal scale level, the composite index allows us to treat the data as an interval scale and to analyse them with mean scores. Age was measured by using the year of birth that the respondent provided, and missing data were completed by information from the register data in the sample frame.
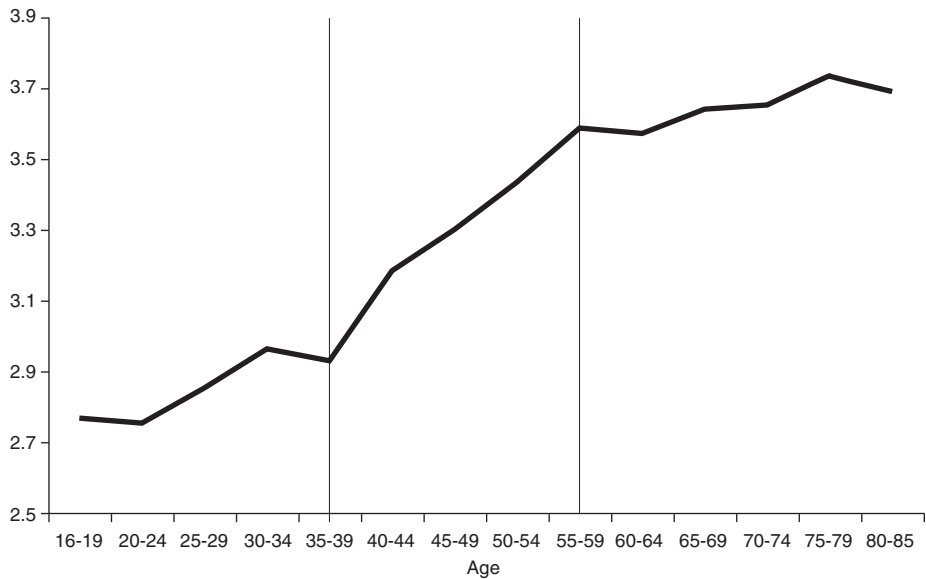
Results

Previous research has shown generational differences when it comes to use patterns and preferences for various kinds of media; preferences and practices that are not affected by life cycle aspects (e.g. Bolin & Westlund 2009; Opermann 2013; Westlund & Weibull 2013). In order to examine the extent to which dimensions of media morality

are a feasible way to study media generations, we first need to ascertain what differences between age groups we find in the material. If media morality works as a measurement of media generational aspects, our analysis will reveal similar generational patterns as other studies in this area.

Figure 1 displays the mean scores of the respondents in age groups of five years. Individual years were merged into groups of five to enable us to conduct statistical inference tests.

Figure 1. *Digital media morality by age groups (mean score)*

Comments: The dependent variable is a composite index of seven questions regarding different aspects of media morality and digital media use. The items were posed as proposals, where the respondents were requested to agree or disagree with four alternatives (1=agree totally, 2=partly, 3=hardly, 4=not at all). Thus, higher scores indicate more disapproving attitudes than lower scores. Age was measured by using the year of birth that the respondent provided, and missing data were completed by information from the register data in the sample frame. The independent variable was merged into groups of five-year intervals.

Source: The National SOM-Survey 2014.

The results identify quite dramatic changes in the moral evaluations of acceptable behaviour related to age. From being fairly balanced among the youngest age groups (mean score around 2.90), we find an increasingly negative evaluation of the aspects related to digital media behaviour with rising age. In the oldest age groups, the mean score is on average 3.60. The mean difference for the general model is significant ($F(13,1090)$ = 26,94, p = 0.000, partial η^2 = .24), but the change in media morality is not uniform. Instead, we find three different age clusters related to three different value structures.

The first contains respondents from the ages of 16 years to the late thirties. This group recognises a big difference between digital manners of politeness and decorum (Goffman 1959), meaning that they find it acceptable to do things to each other online that they would never do within aural or visual range of each other. There is a tendency towards lower acceptance of this divergence with higher age, but there is no statistically significant difference when comparing the mean scores among these respondents (16-39

years) ($F(4,330) = 2,056$, $p = 0.086$, partial $\eta^2 = .02$). The lack of significant differences indicates a common value structure among the respondents in this age group.

When comparing the youngest age cluster with the middle group (from the early forties to late fifties), the results change dramatically. The difference in attitudes between the two age cohorts is clearly significant (($F(3,363) = 8,620$, $p = 0.000$, partial $\eta^2 = .67$).

Finally, the oldest respondents are the ones that are the most sceptical about all the analysed aspects of digital media life, regarding manners of politeness, as well as decorum ($F(4,397) = ,537$, $p = 0.71$, partial $\eta^2 = .01$), and the age group is internally homogenous, as no significant differences can be found within the group. Thus, the steep increase in the negative evaluation of different aspects of digital media behaviour cannot be found among the oldest age cohort.

The pattern revealed by measuring media morality dimensions is similar to the patterns revealed in earlier studies of media generations (e.g. Gumpert & Catchcart 1985; Pilcher 1994; Hepp, Berg & Roitsch 2015). Thus, our conclusion is that media morality works as a way of capturing media generations which is complementary to those of the access to and use of media technologies.

The youngest cohort relates to what earlier research has called "the net generation" (Tapscott 1998), "digital natives" (Prensky 2001) and similar labels. Their formative years took place from the mid-1990s and some years onwards, and for them, computers, the internet and mobile phones have always been part of the everyday media environment, as have being online and using digital media. The media morality of this group can be intepreted as somewhat disrespectful: When compared to the other age groups, this cohort appears to be less anxious about bothering others when talking loud on the mobile phone, using others' pictures on social media and talking on the phone when having dinner with their partners.

The oldest age cohort, which grew up with mass media such as the press, radio and television, likewise shares a distinct internal media morality, and members of it are generally more concerned about others in relation to all types of proposed acts of (im) politeness and decorum. Their media morality is clearly different from that of the digital natives, as they stress the importance of authencity and equate social interactions on- and offline. Generally, they are doubtful about social interactions involving mobile phones and the internet.

The value structure of the third and middle group is much more indistinguishable, and the group is also characterised by large differences between its younger and older members. These respondents were born between the 1950s and the late 1970s and were young during a period of a rapidly and profoundly changing media landscape. The youngest in this group were in their mid-twenties when the internet became more widely used, and during their formative years, they experienced a significant shift from analogue to digital technologies, a shift that explains why the moral evaluations are changing so radically within this age group. These respondents will never construct a (media) "generation" in a Mannheimerian sense, even though they were born at a similar period in time. Instead of constructing a value-based generation, as the youngest and the oldest of the groups do, this middle group consists of several narrow "micro-generations" that are internally homogenous in their attitudes towards cultural behaviour and ways of relating to others.

In search of micro-generations

The three identified age groups and their different ways of relating to aspects of media morality thus go well in line with the empirical findings detected by earlier research. Hepp et al. (2015: 113) identify a "sandwich generation", and Pilcher (1994: 483) detects an "intermediary or buffer generation" between the TV generation and the digital generation that are similar in age to our middle group.

Gumpert and Cathcart argue that the rapid advent of new media technologies and the acquisition of new media grammars imply new alignments, which are shorter and more diverse than those based on kinship generations (Gumpert & Cathcart 1985). Rapid cultural change and the constant acceleration of time are often understood as essential cornerstones of modernity (e.g. Rosa 2013), and following Mannheim, that acceleration counteracts the formation of generations. This indicates that we need to look much more closely and in much more detail at the relationship between explicit media technologies and the cultural panoramas and values of different age cohorts to understand the counteraction of media generations during certain time periods. To examine this question further, we need to look closely at statistically significant breaks in value structures in the material in search of narrower "micro-generations".
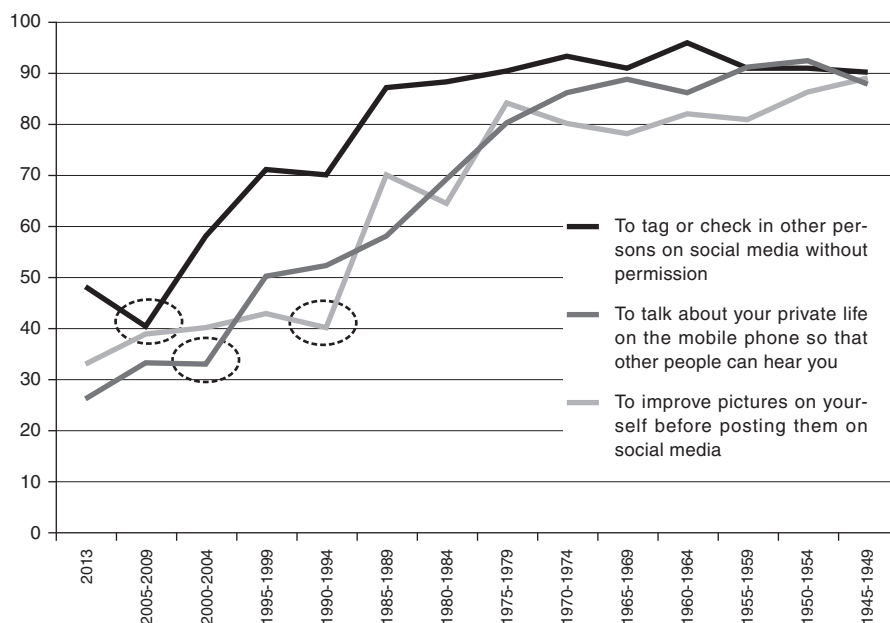
Following Gumpert and Cathcart's thoughts about shorter and more diverse alignments due to rapid technological change during the formative years, we have also returned to Mannheim's concepts of "fresh contact" to explore whether the breaking points can be related to specific media technology breakthroughs. Note that not all the breaks that we explore, and thus not all micro-generations that we have detected, are found within the middle group, i.e. the "buffer generation".

Between two sequentially following age groups, we only found dramatic changes (breaking points) for three out of seven analysed items (using OLS regression models). While it shall be acknowledged that there are other significant breaks further up the curve, we chose to focus here on the breaks that occur between the younger age groups. The reason for this is that we are particularly interested in the changes brought about by the introduction of more recent (digital) media technology.

The three items with significant changes between two subsequent age cohorts are shown in Figure 2. In Goffman's terminology, they measue what would be classified as (digital media) decorum; aspects of decency in social interactions on the internet ("tag or check in other persons on social media without permission" as well as "improve pictures of oneself when posting them on social media") or of social interactions and privacy in digital culture ("talking about your private life on your mobile phone so that others can hear what you say"). The questions are measured on an ordinal level, and we have therefore chosen to compare respondents agreeing "totally" or "partly" with those answering "hardly" and "not at all".

As an independent variable, we display the years when each age-cohort entered their formative years, i.e. the years when they turned 15 years old. For example, the youngest age group in the figure consists of respondents who reached the age of 15 between 2010 and 2013.

Figure 2. *Media morality related to age cohorts. Share of respondents who disagree (per cent)*

Comments: The independent variable is the year when members of the age cohort entered their formative years (i.e. reached the age of 15). The wording of the questions for the dependent variables was: "To what extent would you consider the following behaviour to be acceptable:" "To tag or check in other persons on social media without permission"; "to talk about your private life on the mobile phone so that other people can hear you" and "to improve pictures of yourself before posting them on social media". The items were posed as proposals, where the respondents were requested to agree or disagree with four alternatives (agree totally=1, partly=2, hardly=3, not at all=4). In the analysis, the four alternatives were merged into two categories (agree/disagree).

Source: The National SOM-Survey 2014.

Significant breaking points, where the share of the respondents who disapprove of the behaviour radically increases, can be identified for all three aspects of digital media morality. These breaks confirm that we can identify micro-generations in relation to media morality.

When it comes to attitudes towards social media use, or more specifically, tagging or checking in others in social media, the breaking point for attention is situated in the youngest group of respondents. For this item, a significant change occurs between respondents who entered their formative years between 2005 and 2009; compared with those turning 15 just some years earlier, this group is much less condemning of the behaviours in question. While the older ones (born 1985-1989) find tagging others in social media without prior permission to be unacceptable, the younger of them (born 1990-1994) regard this as acceptable to a much larger degree.

Moving on to attitudes about talking about private things on the mobile phone so that others can hear you, the radical rupture in values is instead between those who entered their formative years before or after the millennium shift. Fifty per cent of those who turned 15 between 1995 and 1999 (born 1980-1984) disapproved of talking about their private life on the phone so that others can hear them, while the same figure is 33 per

cent among those who reached their fifteenth birthday between 2000 and 2004 (born 1985-1989).

The same kind of identifiable break is visible when scrutinising the attitudes towards improving pictures posted on social media, though the breaking point for attention with regard to this aspect of media morality is detected between respondents who entered their formative years somewhat earlier. Here, the breaking point is between those who turned 15 during the mid-1980s and mid-1990s. Among those who were born in the early seventies (and who entered the formative period during the last half of the 1980s), 70 per cent consider it to be unacceptable to improve pictures before posting them on social media; in comparison, only 40 per cent of the respondents who were born in the late seventies (and who had their formative years in the beginning of the 1990s) share this view.

The three breaking points discussed above are all statistically significant when comparing the age groups using regression analysis: "tag or check in", 2005-2009/2000-2004 ($b=.18$, $p<.001$); "talking loudly on the mobile phone", 2000-2004/1995-1999 ($b=.18$, $p<.001$), and "improving pictures", 1985-1989/1990-1994 ($b=.30$, $p<.001$). Following from this, it is meaningful to talk about media "generations" at a micro level, as they are empirically identifiable and significant.

How do micro-generations emerge?

Since we lack data matching the respondents' media morality with their individual fresh contact with new media technologies, we cannot test the relationship between media morality and native media experiences in a strict sense. However, following media generation theory, it is plausible to relate these breaks to the emergence of new media technologies during the formative years. Thus, we will relate the breaks in "cultural panoramas" among the respondents to the history of the implementation of new communication technologies in Sweden. By analysing the diffusion of media technologies using previous research and the annual SOM-Survey, we will put this argument forward.

A question that has been repeated in the survey since the 1980s is the extent to which households have access to different media technologies. Tagging/checking is a cultural practice that did not exist before social networking sites and is thus closely related to the breakthrough of social media and smartphones. The important question is therefore the extent to which those who turned 15 between 2005 and 2009 lived in a different media environment during their formative years compared with those who are slightly older (reaching the age of 15 between 2000 and 2004). Nearly all Swedes (about 95 per cent) have a mobile phone today, and this level has been stable since 2004 (Oscarsson & Bergström 2014). But the breakthrough for smartphones is more recent: Before 2010, only 16-20 per cent of the population had access to smartphones; two years later, the corresponding figure was almost 60 per cent (Bolin 2014; Findahl & Davidsson 2015). This diffusion was even faster among younger respondents; over 96 per cent of those between 16 and 19 years old had a smartphone in 2012. In the SOM-Surveys, it is not possible to discern any differences in the acquisition of smartphones between respondents born after the mid-1980s and early 1990s. However, considering activity on social media on their smartphones, there is significantly more activity among those entering their formative years after 2005 compared with those turning 15 earlier than 2005 (see

Table 1 in appendix). To summarise, the respondents who during their formative years naturalised smartphones and social media as part of their everyday lives have adapted a more tolerant view towards tagging other people in social media.

To shift the focus to the second identified breaking point – talking loud on the mobile phone in public – we need to go further back in time. Here, we want to know whether there are differences in the media environment and diffusion of technologies during the formative years of the age groups expressing different attitudes. As noted, the diffusion of mobile phones in Sweden was already high at the turn of the millennium: The penetration reached over 50 per cent of Swedes in 1996 (Oscarsson & Bergström 2014). But looking more closely at those who were in their formative phase around the millennium shift, we identify a significant break between those whose formative years were around the new millennium and those who turned 15 a couple of years earlier. The penetration of mobile phones is significantly higher in the younger group: from around 65 per cent in 1998 to almost 90 per cent in 2002 (see Table 2 in the appendix). Hence, the different experiences of mobile phone availability correspond with the differences in opinions about media use shown in Figure 2. These numbers thus strengthen the interpretation of the relationship between media morality and the media environment during the formative years of the respondents.

The last breaking point regards improving pictures on social media, an authenticity issue. Since the essential break in cultural values takes place between the individuals entering their formative years before and after 1990, it obviously has nothing to do with the introduction of social media. Instead, this can be interpreted in terms of familiarity and experience with computers and software for photo editing. While there are no data about software usage in the SOM surveys, there is information about access to computers at home. The respondents that entered their formative years during the mid-1980s had much less access to computers in their homes compared to those turning 15 after 1990 (see Table 3 in appendix). But access to computers is not limited to households alone; Swedish school policy has also tried to familiarise children with computer technologies to diminish economic imbalances in Swedish society. After a period of experimentation during the 1970s, computers were more seriously introduced into Swedish schools from the mid-1980s onwards (Troedsson 1995; Jedeskog 1998; Emanuel 2009). Thus, we know that practically all Swedish children had access to computers from this time onwards, regardless of the technological equipment in their home environment.

All three indicators reveal major breaks in young peoples' access to new media technologies in everyday life and support the idea that fresh contact with media technologies during the formative years influences aspects of (digital) media morality. The micro level of this analysis also indicates that such breaks foster common norms regarding what is considered appropriate on a micro-generational level, and that particular technological shifts in this respect are qualitatively more significant than others.

Conclusion

This study has confirmed that there is a middle group, i.e. a "buffer generation" or "sandwich generation", between the analogue and the digital media generations when focusing on aspects of media morality. By analysing attitudes towards media use and behaviour, we have shown that the shift from an analogue to a digital media culture not

only changed habits and media use, but also social norms and cultural values.

In order to more deeply understand the relation between generational identity and the emergence of new media technologies, we launch the idea of smaller micro-generations: groups of people born during a short time span and held together culturally by the fresh technological contacts during their formative years. Rapid and profound changes in media technologies thus seem to counteract the formation of shared moral codes among people sometimes born just a few years apart. Even though not all the detected micro-generations are found within the middle group, the idea of media micro-generations can theoretically explain why the buffer generation, or other less consistent age groups, are less homogeneous compared with the analogue and the digital media generations. In essence, if we follow Mannheim strictly, the "buffer generation" might not be a generation at all.

Having said this, we would like to put forward the argument that media micro-generations have more in common with Mannheim's original idea of generations than the so-called buffer generation, as the respondents forming the micro-generations relate to media morality dimensions in ways that were shaped by the media technologies they encountered during their formative years.

However, the analysis of micro-generations should be seen as tentative, and a more precise and empirically grounded analysis must take into consideration the individual experiences of different media technologies related to media morality to verify the connection between media morality and fresh technological contacts. These kinds of data were not available in the present survey.

These shortcomings should be taken seriously, and the question of how fresh contacts with media technologies influence cultural values is one that should be studied empirically and in greater detail. However, it is a methodological challenge to verify the results presented in this study. Given the methodological shortcomings of the qualitative research of earlier periods, we propose a panel study for the further investigation of these questions, linking everyday practices and media use to peer culture and cultural panoramas.

Notes

1. To Mannheim, the most evolving formative moments are related to historical events: disasters, wars, crises of different sorts, etc. and other kinds of national traumatic moments (Bolin 2017: 19).
2. The concept has two sub-groupings: the moral and the instrumental. Moral requirements have to do with rules of non-interference or non-molesting of others, and instrumental requirements have to do with task-oriented duties such as proper clothing at work.

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Appendix

Table 1. Social media use on the mobile phone (per cent)

Entering formative years	<4 times each day	>4 times each day	Sum	N
2010-2013	74	26	100	57
2005-2009	68	32	100	89
2000-2004	46	54	100	94
1995-1999	53	47	100	113
1990-1994	46	54	100	111
1985-1989	29	71	100	122
1980-1984	31	69	100	143
1975-1979	15	85	100	143
1970-1974	7	93	100	140
1965-1969	7	93	100	166
1960-1964	6	94	100	220
1955-1959	2	98	100	146
1950-1954	0	100	100	97
1945-1949	0	100	100	64

Source: The National SOM-Survey 2014.

Table 2. Mobile phone accessibility in household (per cent)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Yes	36	46	57	65	76	74	79	89	90	85	94
No	64	54	43	35	24	26	21	11	10	15	6
Sum	100	100	100	100	100	100	100	100	100	100	100
N	1,756	1,752	1,719	3,536	3,426	3,462	3,527	3,553	3,618	3,562	3,464

Source: The National SOM-Survey 1995-2005.

Table 3. Computer accessibility in household (per cent)

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Yes	7	9	14	13	15	15	14	20	23
No	93	91	86	87	85	85	86	80	77
Sum	100	100	100	100	100	100	100	100	100
N	1,591	1,640	1,619	1,568	1,486	1,526	1,838	1,847	1,696

Source: The National SOM-Survey 1986-1994.