

MODELLING NEWS MEDIA USE

Positing and applying the GC/MC model to the analysis of media use in everyday life and crisis situations

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The contemporary mediascape offers a plethora of news media and social media, which people can turn to in everyday life and during a crisis. Generations develop routinized media usage patterns in the formative phases of their lives, which they often maintain in their daily habits in everyday life (the generation-centric (GC) approach). The characteristics of media vary, providing different logics and affordances, and occupying different niches in time and space (the medium-centric (MC) approach). Crisis events in the vicinity, such as gas emissions, terrorist attacks, pandemics and earthquakes, presumably ignite an augmented interest for information and news on the events that may cause a destabilization of established media usage routines. This article aims to conceptualize, describe and explain how four generations envision their media use during such crises. The article posits the GC/MC-model, a 2x2 matrix encompassing a generation-centric vis-à-vis a medium-centric approach, from which two hypotheses are derived. Statistical analysis of nationally representative survey data provides evidence that all generations, and both daily and more seldom users of different media, envision themselves turning to these during a crisis. Their envisioned broadening of media use, predominantly involving commanding attention to immediate news media reporting, results in a cross-generational homogenization of media use.

KEYWORDS Complementary Effects; Crisis Communication; Cross-media Use; Digital Journalism; Displacing Effects; GC/MC Model; News; Sociology of Media Generations

Introduction

The media inarguably play an important and deeply ingrained role in everyday (media) life (Deuze, 2012). Legacy news media such as newspapers, radio and TV have long since formed an important part of these media lives, with the twenty-first century also seeing news reporting via digital platforms gaining traction. News media are typically praised for their role in democracy, functioning as facilitators of informed citizenry, and are assumed to fuel civic participation. However, while legacy news media still maintains a prevalent role, they are under significant pressure as users and advertisers are increasingly displacing them in favour of digital media. While many actually head for the news provisioning in the digital habitat, people also seek other sorts of gratifications, thus turning to social media, gaming, online commerce etc.

Occasionally crises strike that disrupt the rhythms of everyday life, with circumstances arising that seriously interrupt the functioning of a community or society, threatening basic social functions and causing widespread human, material, economical or environmental losses (WHO, 2007). A crisis may arise gradually or suddenly, affecting communities both directly and indirectly (cf. Ghersetti et al., 2012). The need for information may vary depending on the causes and nature of the crisis. Sudden and acute events, such as wildfires and terrorist attacks, create a need for immediate news that guide people on how to reach safety. Slowly evolving economic crises or insidious epidemics, on the other hand, rather call for in-depth information on underlying causes and long-term consequences.

Both news media and social media play important roles during a crisis, fulfilling individuals' needs for information and communication. News media mainly have significance in keeping people informed about how the crisis develops and how society responds to it, while social media primarily offer social gratifications by keeping people in touch with family and friends. In this networked information society, increasingly marked by social media, there are also other stories gaining traction over those produced by journalists (i.e. Singer et al., 2011). Moreover, with a fragmented mediascape citizens are nowadays provided with great opportunities to develop individualized ways of accessing the news, which has contributed to significant differences in media use among generations. While factors such as educational level and gender also bear significance on differences in media use, age and generational disparities have proven to be truly important (Westlund and Weibull, 2013; c.f. Westlund and Färdigh, 2012). Following this, the article will focus on generational patterns and their effects on (envisioned) media use.

Differences in media formats, alongside an (in-)habituation of individualized news accessing patterns, result in citizens being overexposed to some types of news while underexposed to others. Many researchers have emphasized how uninformed citizenry and limited civic participation can cause societal problems, but few have addressed its crucial significance for the salient case of crisis events. Normatively speaking, one may posit that news about crisis events should come to everybody's attention since these tend to have implications for many people. Through news reporting people gain a perception of what is happening and who is affected, and build an opinion of why, how and who's responsible or to blame. News may thus be crucial for taking decisions in relation to possible dangers and risks (Nohrstedt, 2010), and may also create symbolic values generally affecting people's notions of fear and uncertainty (Cottle, 2009).

The fragmented news media landscape and individualized and routinized media use are potential barriers for authorities and communication professionals striving towards keeping the public informed during a crisis. It poses a problem that different generations turn to the media in different ways, especially with some among the older generations often reading only printed newspapers and the younger generations favouring social media. However, this only remains problematic if generational habits are maintained during a crisis. If, on the contrary, crisis situations were to actually destabilize generations' routinized media use, or non-use, leading them to turn to media providing immediate news reporting, a majority of the public would be informed. Crisis situations may then actually lead to a temporary homogenization of media use.

This article aims to conceptualize, describe and explain how four generations envision their media use during a crisis. Building on a theoretical framework encompassing the sociology of generations as well as medium- vs. user-centric approaches to media use, the article conceptualizes a model accommodating for generation-centric and medium-centric approaches. These approaches lead to two hypotheses on how generations envision the media used in a crisis interrelate compared to the routinized media use in everyday life. The analysis testing these hypotheses is based on 2010 survey data nationally representative for Sweden.

During the year of the study more Swedes used the Internet at home (85%) than read a subscribed quality newspaper (54%), which marks a reverse situation compared to 2000 when the corresponding figures were 51 and 73 per cent (Findahl 2010; Wadbring & Hedman, 2011). The Swedish newspaper market is strong by international standards (World Press Trends, 2011), although both quality newspapers and evening tabloids have declined over the last decades, while digital media have gained considerable significance (Westlund and Weibull, 2013). By comparison, Sweden has high media consumption, high technology development and high proliferation of digital media in the population (Dutta and Bilbao-Osorio, 2012).

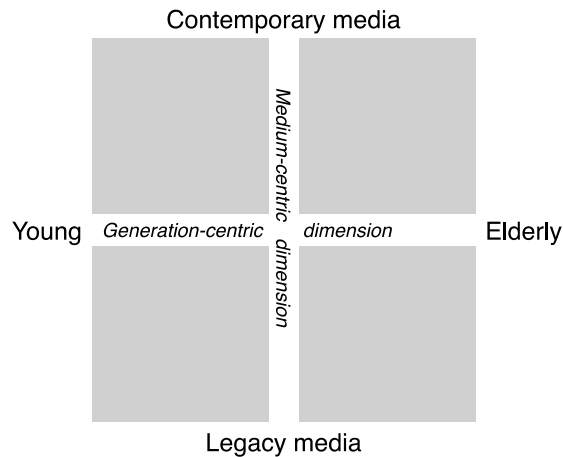
Theoretical Framework

This article has integrated several theoretical strands of research into a framework involving two polarized dimensions that support the analysis of envisioned media use during a crisis. The term coined for the first dimension – *the generation-centric approach* – emphasizes the varying needs, interests and habits of individuals within and across generations. It builds on the sociology of generations’ research to scrutinize the effects of generational belonging on media use in everyday life and crises. It hypothesizes that media use in a crisis varies much between generations since these will turn to the individual media that their generation typically uses in everyday life. The second dimension – *the medium-centric approach* – instead promotes that the perceived niche, logic and affordances of media for information about societal events play most importance for the media that people turn to during a crisis. Departing in research on displacing effects, this approach posits that generations may displace their habitual media use in favour of the (news) media they believe provides good crisis news reporting.

The article posits the GC/MC model (Figure 1) as an attempt to conceptualize and visualize the generation-centric and medium-centric approaches as two interrelated dimensions in a 2x2 matrix. The GC/MC model acknowledges the time dimension applicable not only to generations of people, but also to generations of media. The GC/MC model provides an analytical framework for studying how different generations turn to the media in everyday life and/or during a crisis. The generation-centric approach has been operationalized into a horizontal continuum specifying the relative age span of the generations, going from young to elderly, in which one can place generational groups such as those specified by Zukin et al. (2006). The medium-centric approach places the media into a dichotomy involving legacy media on the one end (i.e. newspapers, radio and television) and digital media on the other (online news, mobile news, social media etc.). At first sight this normative classification of media generations may appear as a far too simplistic construction. However, the labelling of “legacy” vs. “contemporary” in the model marks an attempt to conceptualize two broader and polarized dimensions that provide opportunities for capturing the liquidity of the transforming mediascape. That is, since older generations of media transform (e.g. TV converges with numerous screens) and new generations of media gain entry, the more exact position of a specific medium will always be relative to the other media. The term “contemporary” is supposed to connote emergent or more recently established media (such as social media or mobile news), which are either processing through an early and formative phase of their development or have just begun to become institutionalized (c.f. Westlund, 2011). What is more, this conceptualization acknowledges the importance of generations’ formative phase in

life (Mannheim, 1952), and examines how the media plays a dominant role in the mediascape at a specific time period (Westlund and Weibull, 2013).

FIGURE 1
The GC/MC-model



The article will utilize the record that the GC/MC model offers for analysing and discussing the empiric findings on generational media use in everyday life vis-à-vis crisis. This article departs from two general assumptions: 1) generations will spend more time with (news) media providing information during crisis situations than in everyday life, and 2) there is intra-generational variance depending on the frequency of use in everyday life (daily vs. more seldom). Daily use marks habitual media use, indicating that people have domesticated the media as an ordinary and integral part of their everyday lives (Bakardjieva, 2011). More seldom use here literally encompasses all other frequencies of use, including non-usage. However, the generation-centric approach vis-à-vis the medium-centric approach of the GC/MC model thus presents two diverging hypotheses on media use during a crisis.

The Generation-centric Approach

Contemporary research on generations and media have typically focused on how young generations use “new” digital media, emphasizing that they do so in substantially different ways than the older generation who instead typically orient towards legacy media. Many have forwarded criticisms to oversimplified constructions of the young as a homogenous generation oriented towards digital media (c.f. Buckingham, 2008; Herring 2008). Recent research from Sweden, for instance, reports much heterogeneity in the media lives of the young (Westlund and Bjur, 2013; 2014), suggesting that there is much diversity with regards to people’s needs for media.

The generation-centric approach has been developed for this article by building on two strands of research, the user-centric approach and generational sociology. The user-centric approach emphasizes that research on media consumption must account for people’s needs and habits (e.g. Dutta-Bergman, 2004), since they may actually be rewarded with several different gratifications from one medium. Following this, people may want to turn to a broader set of repertoire of media to fulfil their needs, which leads to complementary media use. Contemporary research on the interrelationship between legacy and digital media, especially in relation to newspaper reading and online news consumption, has forwarded mixed findings for different contexts and groups (i.e. Westlund and Färdigh, 2011). From such empiric research it appears that generational belonging plays a significant role for media use in everyday life, not only for how genera-

tions command attention to the news (Westlund and Färdigh, 2012), but also in regard to mobile use (Bolin and Westlund, 2009) and media use more generally (Aroldi and Colombo, 2007).

A focal issue in research on media use from a generational perspective involves how in everyday life it links to the media that were dominant when a generation grew up. German sociologist Karl Mannheim played an important role in establishing the sociology of generation field in the 1920s. He argued that people growing up and having their formative phase of life at the same time would most likely accumulate similar experiences and develop a generational consciousness (Mannheim, 1952). Media researchers have further developed his ideas concerning how generations develop distinguished media use (Gumpert and Cathart, 1985; Aroldi and Colombo, 2007) and media memories (Volkmer, 2006) in their formative socialization with media. For the salient case of news accessing, Westlund and Weibull (2013) performed an empirical analysis of how four generations accessed the news through different media between 1986 and 2011. Their dataset involved 26 annually conducted cross-sectional survey studies representative for Sweden, analysing four generations' use of ten different news media platforms. The findings supported the generational hypothesis on formative socialization, especially regarding the two older generations that persisted with their legacy media use, albeit in reference to the rapidly transforming mediascape. One generation was concluded as balancing between legacy and digital media, whereas the youngest generation displayed a prolific orientation towards digital media. It is worth noting that their study also emphasized a double articulation of age, evidencing that life phase effects were also at play, alongside a continuous calibration of media habits taking place in relation to the transforming mediascape (Westlund and Weibull, 2013)

Westlund and Weibull (2013) drew upon Zukin et al. (2006), building their analysis on a generational classification involving four generations: *the dutifuls* (born 1945, or earlier), *the baby boomers* (1946–1964), *generation X* (1965–1976), and *the dotnets* (born 1977, or later). Similar to other classifications, these generations are defined as ranges between decisive birth years based on identity and characteristics. While this classification has its origins in the American context, empiric research from several other countries has proven its worth in other contexts, and it will thus be applied in this article. This approach facilitates cross-generational comparisons that account for differences in media and society when generations grow up.

To sum up, the generation-centric approach posits that generational belonging influences media use in everyday life as well as during a crisis. This approach suggests that generations largely maintain the media habits they developed with the media that were dominant in the formative phase of their life. These generations may also develop habits of using other media, introduced later in life, resulting in complementary media use. Beyond overall generational media use patterns in everyday life, one is likely to find intra-generational heterogeneity, reflecting varying needs with regards to orientation towards and intensity in media use. Ultimately, the generation-centric approach leads to our first hypothesis (H¹): *when a crisis strikes a generation will predominantly turn to the media it uses in everyday life*. As a consequence of commanding augmented attention to the media they normally favour the most, inter-generational comparisons of media use are marked by even more pronounced heterogeneity.

The Medium-centric Approach

The medium-centric approach is an established strand of research proposing a zero-sum game taking place between legacy media and new (digital) media, resulting in the new having a displacing effect on the old. It was established in the 1970s, alongside the establishment of the principle of relative constancy of communication expenditures, and was developed further in the following decades by applying and developing the *theory of the niche* in the salient case of media research. In this article we integrate the theory of the niche with *media logic* and *affordances*, two theoretical concepts that nicely feed into the medium-centric approach.

The theory of the niche builds on sociocultural evolution in ecologies and concerns coexistence and competition among populations. It suggests that media compete with each other depending on availability in time and space, as well as the types of content and functionalities they put on display. The niche of a media market is defined by geography and media products (and services). The probability of success is highest for those media products and services possessing attributes that correspond to the selection criteria of a (targeted) population. The niche of media products provides certain resources, which in turn offer gratifications (opportunities) in different time-space situations that may guide people's media choices (Dimmick, 2003).

Altheide and Snow (1979) proposed that media inhibit certain media logics involving routines, rules, and media formats, which can be defined as the constraining and enabling organisational and technical features of a medium (c.f. Dahlgren, 1996). While the development of media in a certain direction may manifest and reinforce a specific media logic, it should not be perceived as the discovery of genetic, objective and deterministic qualities, but instead mark a social co-construction (Westlund, 2011). The concept of media logic essentially suggests that media develop certain attractive features, while also holding less attractive ones. It is important to retain a critical view to the nature of media logics, acknowledging how such are socially constructed (c.f. Plesner, 2012).

The concept of affordances is introduced into this context since it has been proposed as a middle ground between technological determinism and social constructivism. Literature suggests that media possesses certain affordances that invite certain uses, while they do not determine how to be used, as this may be subject to an individual's needs, interpretation and capabilities. Affordances also involve constraints to the inherent properties directing how media may be used (e.g. Graves, 2007). Hutchby's sociological take on affordances and technologies goes in harmony with Graves and others, but adds that the conception of inherent characteristics provides different affordances to different people. Nevertheless, while an object may provide numerous different sorts of affordances to different people there are still things it cannot afford (Hutchby, 2001). The Web, for instance, offers a broad record of affordances with regards to gratifications such as entertainment and information, but still has constraints on what it may be used for.

The bottom line is that the three theoretical concepts promoting a medium-centric approach all posit that media possess certain characteristics (i.e. resources, logics and affordances). To varying degrees these media characteristics are seen as inherent and/or socially constructed, but most importantly they are assumed to bear influence on how media are used. This issue has marked a focal area of interest for contemporary research into the production and consumption of news. For instance, empiric studies of cross-media news consumption have laid ground for conceptualizations such as *worthwhileness* (Schroder and Larsen, 2010) and *newsfulness* (Chyi and Chadha, 2012), which inform on how the public value and interact with news media platforms. Moreover, the *model of journalism* conceptualizes how legacy news media utilize humans and machines in activities geared towards customising or repurposing news for different platforms (Westlund, 2013).

The theory of the niche has been applied in research into how different news media compete with their superiorities to occupy specific niches in space and time among individuals (Dimmick et al., 2011). As discussed, online news both displace and complement newspapers in different ways among various groups (e.g. Westlund and Färdigh, 2011). These mixed findings are circumvented by the fact that studies utilizing the medium-centric approach have involved many different research designs, cultural contexts and phases of study.

This article has developed yet another approach, by attempting to utilize media use habits in everyday life, among different generations, as an independent variable for the analysis of envisioned media use during a crisis. Ultimately, the medium-centric approach posits the second hypothesis (H²): *during a crisis, generations envision turning to the media that they perceive provide the best information on the events (i.e. perceptions of media characteristics)*. This means that a generation may displace its everyday media use in favour of other media, presumably those providing immediate news,

such as online news or live TV/radio coverage. Consequently, this may lead to increasing homogeneity, as all generations select the news media that occupies the niche of real-time reporting of a crisis. However, it may also be true that, when a crisis occurs, the members of a generation turn into omnivores of information about the events and command their attention toward a plethora of media.

Method and Material

This article uses data from the annually conducted scientific omnibus survey organized by the SOM Institute at the University of Gothenburg. Questions on media use during crises were included in questionnaires sent to 3,000 Swedes aged 16–85 in 2010 (a 61.4 per cent response rate derived from 1,657 responses in total), while questions on regular media use were sent to 9,000 Swedes (60.4 per cent response rate and 4,932–5,007 responses for questions on newspapers, TV, radio and online news; 4,156 for social media, and 1,521 for mobile news as this item was only included in one questionnaire). By using an annually repeated survey project we reduced the hazards of potential under- and over-representations of actual behavior. It is worthwhile noting that survey respondents were asked to state the frequency of their media use, rather than state the specific set of media they use the most.

In the questionnaire the respondents declared their envisioned media use with regards to three hypothetical crises. These were selected on the basis of the perceived seriousness of the threat (very serious, less serious), the speed (fast, slow) and the proximity (local, national, international). These were: 1) a toxic gas emission in the neighborhood (local, very serious, fast), 2) a serious epidemic approaching from abroad (national, very serious, slow), and 3) a major terrorist attack with many casualties in one of Sweden's neighboring countries (international, less serious, fast). Naturally, one could assume these three sorts of crisis would evoke different responses among generations when it comes to media use. For instance, the speed of events for an international epidemic is slower compared to the other two, which in turn implies different need for immediacy. Moreover, a terrorist attack could presumably involve a need for more visual news than an epidemic or a financial crisis. Nevertheless, our descriptive analysis and statistical tests (Pearson's r correlations) for all three crises showed only incremental differences. Following this, the hypothetical case of a toxic gas emission was chosen to analyse generations' envisioned media use during crises since it has several features in common with those occurring most regularly (e.g. wildfires, landslides and hurricanes).

The media platforms included in the questionnaire were newspapers, TV news, radio news, online news and social media. The use of social media was thus studied in the context of questionnaire items focusing news media, which may have influenced the respondents' interpretations and replies. Moreover, respondents were asked where they envisioned turning for "information", while the functions and gratifications provided by social media do not necessarily translate into information search on news events, but rather into communication, conversation, entertainment etc. Thus, both during and after a crisis, people may certainly use social media more than reported here, but for purposes such as engaging in conversations and networking on a micro level rather than searching for information.

It should be noted that survey analysis measures how people perceive their own subjective behaviors, habits, beliefs and values, not factual circumstances. Furthermore, our survey also includes a question regarding how people envision their behavior in a hypothetical case – a gas emission, which may add to the eventual intrinsic over- and underestimations of the answers. Taking this into account, we systematically choose to describe people's media use in crisis as their *envisioned* use, presuming over- and underestimations to be constant among all generations.

Findings

This section first presents results on everyday media use among the four Swedish generations, and secondly turns to how these generations envision their media use when discovering that a crisis has occurred. Finally, the implications that everyday media use have on generations' envisioned media use in times of crises is analyzed.

Media use in everyday life among Swedish generations

In 2010 a large proportion of the Swedish public (16–85 years) were daily users of legacy news media. TV news attracted most viewers (45%), followed by listeners to radio news (36%) and newspaper readers (31%). Turning to the Web, nearly twice as many had integrated social media (28%) into their daily activities compared to online news accessing (15%), whereas mobile news consumption was still used by relatively few on a daily basis (5%).

Turning to the media use of four generations, Table 1 reports the findings on how many among each generation use the different media (percent), whether there is a significant correlation between a specific medium and a specific generation (Pearson's r), and the odds ratio coefficients from a logistic regression explaining the effect of generational belonging on daily media use.

TABLE 1
Daily media use and statistical dispersion in 2010 among four generations

	Dutifuls			Baby boomers			Generation X			Dotnets		
	%	Pearson's r	EXP(β)	%	Pearson's r	EXP(β)	%	Pearson's r	EXP(β)	%	Pearson's r	EXP(β)
Newspaper	45	0.176**	2.28**	36	0.073**	1.38**	24	-0.076**	0.64**	13	-0.201**	0.27**
TV news	79	0.400**	7.35**	51	0.087**	1.44**	25	-0.197**	0.33**	12	-0.345**	0.11**
Radio news	57	0.259**	3.29**	44	0.121**	1.69**	24	-0.123**	0.49**	8	-0.303**	0.11**
Online news	6	-0.142**	0.31**	13	–	–	20	0.072**	1.61**	22	0.115**	2.03**
Mobile news	2	-0.085**	0.24**	4	–	–	6	–	–	9	0.113**	2.82**
Social media	4	-0.241**	0.09**	15	-0.221**	0.32**	31	0.033*	1.19*	62	0.428**	7.85**
Range	77			47			25			54		
SD	32.6			19.0			8.5			20.5		

Exp(β) is the anti-logarithmic regression coefficient (odds ratio) which utilizes dichotomization, and where each generation (1) is measured with the three other generations as reference category (0). It refers to the change in odds ratio associated with a 1 unit change in the explanatory variable. Person's r has been used for correlation analysis. Only significant correlations and coefficients are displayed in the table: *significant at the 0.05 level (2-tailed); **significant at the 0.01 level (2-tailed). Range is a measure of statistical dispersion that displays the difference of responses between the highest and lowest percentage shares in each of the four generations. The standard deviation displays the percentage of variation from the mean value within each generation.
Source: The National Swedish SOM survey, 2010.

The findings for the dutifuls' use of media in everyday life witness a generation that has developed a distinct profile towards legacy news, and especially TV news. The majority of the dutifuls command their attention toward TV news (79%) on a daily basis, and the correlation measure (0.400** **, significant at the 0.01 level) evidences a strong link between such media use and this generation. The odds ratio coefficient (7.35**) reports that dutifuls are seven times more likely to watch TV news on a daily basis than the rest of the population (the reference category combines the three other generations). While radio and newspapers also maintain precedence in the everyday life of many dutifuls, the contrary is valid with regards to digital media. Relatively few use online or mobile news and social media on a daily basis, and the negative correlations and low odds ratio figures evidence the absence of these media. A dutiful, for instance, is ten times less likely to use social media on a daily basis than the other generations as a whole (Exp(B) = 0.09). The two measures of statistical dispersion evidence the pronounced orientation towards

legacy news media on behalf of digital media, with a maximum range of 77 (between TV news and mobile news) and high standard deviation (32.6).

Baby boomers are also a generation marked by legacy media in their everyday life, but among which we also find elements of digital media. Similarly to the dutifuls, most baby boomers are found to watch TV news, followed by radio news and newspapers. The results provide us with significant and positive correlations and odds ratios for these media. However, with online news and social media being domesticated by one out of seven baby boomers there are more diversified patterns of media use in this generation than among the dutifuls. Nevertheless, with only 4 per cent accessing mobile news on a daily basis the range of responses comes down to 47, while the standard deviation scores at 19.

Generation X stands out as having developed a prolific cross-media repertoire, seemingly balancing a mix of both digital and legacy news media over the course of the day. This is supported by low statistical dispersion between the use of legacy and digital media (range: 25, std. dev.: 8.5). Social media (31%) is most commonly used by generation X, followed by TV news (25%), newspapers and radio news (24%) and online news (20%). However, the significant correlation and odds ratio measures reveal social media and online news to be their most positive links.

As way of comparison, the dotnets have developed daily media habits strongly dominated by digital media, seemingly on the opposite end of the dutifuls' orientation towards legacy news media. Social media have become remarkably integrated into the rhythms of everyday life (62%), followed by online news (22%), whereas only about one in ten use legacy news media daily. There are positive correlations with digital media and negative correlations with legacy news media, and the odds ratio score evidences that the dotnets are nearly eight times more likely to use social media on a given day than the rest of the population. The range (54) and standard deviation (20.5) further add evidence to the prevalence of their digital orientation in everyday life.

To add further to the findings in Table 1, one may calculate the accumulated percentages of a generation's media use. A prevalent result of this calculation regards that dutifuls score highest, having a figure of 193 of which social media only contribute with 4. The dotnets score 126 in total, but social media contribute with more than half of their media use (64), suggesting that they are far less inclined to access the news in everyday life than the other generations. The dutifuls access the news three times more than dotnets, who in turn use social media fifteen times more than the dutifuls. As way of comparison to other generations, the dotnets pay relatively limited attention to news media in relation to their social media use. Nevertheless, dotnets (9%) use mobile methods to access the news more than the others, even four times more than dutifuls (2%). Ultimately though, daily mobile news consumption was modest among all four generations in 2010, as shown in Table 1. Subsequent surveys show that mobile news clearly has gained traction among all generations in 2011 and 2012 (Westlund, 2014).

The bottom line is that the four generations have all developed their own specific media profiles in everyday life, which reinforces the theoretical framework suggesting that generations keep maintaining their focus on media that were dominant in the formative phase of their lives. Dutifuls live in harmony with legacy media and dotnets have grown into a digital media life, while baby boomers and generation X place themselves in between the two, with the findings presenting these as relatively heterogeneous generations balancing between legacy and digital media, yet on opposite sides of the medium-centric dimension (c.f. Westlund & Weibull, 2013).

Generations' envisioned news accessing during a crisis

The analysis now turns to how Swedish generations envision accessing the news and using social media when a crisis occurs. Table 2 presents a media usage index that reports on how their envisioned media use relates to everyday media use. In essence it informs on the difference and

variance of reported and envisioned media use, based on an operationalization of daily media use (i.e. 7 days per week) versus reporting being likely/very likely to turn to these media in the event of a crisis. Obviously there are differences in the point of departure for such evaluations among those who use media each day compared to those using it more seldom. The positive index figures in Table 2 evidences a higher share in each generation expressing as being likely or very likely to use these media when a crisis occurs, compared to the share in each generation using these media on a daily basis. The media usage index evidences that the Swedish public envisions turning to news media, not social media, for information during a crisis. The three news media providing immediate news reporting scores highest, whereas the figures for newspapers come in at about half (+20%). The reasons that the survey did not include questions about envisioned use of mobile news during a crisis related to space constraints in the questionnaire, and that mobile news in 2010 had not yet gained much significance.

TABLE 2

Media usage index: difference between daily use and envisioned media use in a crisis

	Total	Dutifuls	Baby boomers	Generation X	Dotnets
Newspaper	+20	+18	+17	+18	+28
TV news	+39 ^{^^}	+5 ^{^^}	+37 ^{^^}	+59	+66
Radio news	+43	+26	+43	+57	+51 [^]
Online news	+40 [^]	+20	+44 [^]	+54 [^]	+50
Social media	(-4)	+6 [^]	+8	(-3) ^{^^}	(-20) ^{^^}
Sum of differences	146	75	149	191	215
SD	19.8	9.4	16.5	27.8	33.2

The index numbers are arrived at by subtracting the percentage for daily media use from the percentage for envisioned media use during a crisis among the public and each of the four generations. Envisioned media use was measured on a scale of 1–4, where 1 (“very likely”) and 2 (“likely”) have been merged into one category representing envisioned media use. The index numbers have been rounded off without decimals to avoid conveying findings in a more precise nature than is adequate. Sum of differences and standard deviation include one decimal as this is commonplace. The sum of differences treats all index numbers as positive, and gives a measure on the total difference between media use in everyday life and during a crisis on a generational basis. Standard deviation is a measure of variance that accommodates for both the positive and negative numbers. ^{^^} Refers to the media with the highest share of daily users in each generation, whereas [^] indicates the media with the lowest share.
Source: The National Swedish SOM survey, 2010.

The [^] and ^{^^} symbols indicate the lowest and highest share of daily use in each generation. The figures for increased use typically score highest for the media that few members of a generation use in their everyday life since they offer most room for upsizing. For instance, TV news increases the most with dotnets (+66%), among whom relatively few watch TV news on a daily basis (12%), whereas the increase among dutifuls is modest (+5%) since TV news is already deeply ingrained into everyday life (79%). In conclusion, this shift in media use leads to transcending generational borders.

To continue, the figures vary significantly among generations and media. The media usage index reports that dutifuls will command more attention to news from radio (+26%) and newspapers (+18%), in line with their generational patterns, but also that they will turn to online news (+20%). TV news (+5%) scores an incremental rise due to the high uptake in everyday life, while the similar figures for social media (+6%) relate to limited diffusion. Baby boomers, on the other hand, envision commanding more attention to online (+44%), radio (+43%) and TV news (+37%). As such, they would consequently incorporate online news much more into their news consumption diet during a crisis. In comparison, generation X envision themselves giving augmented attention to both legacy and digital media if a crisis should strike (TV news +59%; radio news +54%; online news +54%). A smaller proportion would turn to newspapers (+18%), while the number turning to social media for crisis information is lower than the share of daily users (-3%). The dotnets envision even larger increases in news media use, mainly TV news (+66%), but also radio (+51%), online news (+50%) and newspaper reading (28%). On the contrary, the

number turning to social media for information purposes would decrease compared to daily use (−20%).

To continue, Table 2 inform that the sum of difference for the general public is 146. This suggests that all generations envision turning to media in a substantially different fashion during a crisis than in everyday life. Moreover, the sum of differences measure supports that there are prevalent differences between the four generations. By way of comparison, envisioned media use during a crisis among dotnets diverges substantially more from everyday life (215) compared to the other generations, especially in relation to the dutifuls (75). While the envisioned use of news media during a crisis generally increases, the figures for social media use actually turn out as negative. The standard deviations evidence that all generations foresee a more diverse use of news media when crises occur, and the scores for younger generations indicate more diverse intra-generational use. We conclude, however, that inter-generational differences level off when a crisis occurs, which results in a homogenization of generational media use that supports H^2 rather than H^1 .

TABLE 3

Envisioned generational media use during a crisis among daily and more seldom users of each medium

	Total		Dutifuls		Baby boomers		Generation X		Dotnets	
	Daily	More Seldom	Daily	More Seldom	Daily	More Seldom	Daily	More Seldom	Daily	More Seldom
Newspaper	60	46	65	61	59	48	54	38	54	38
TV news	86	83	84	86	88	88	89	82	87	77
Radio news	91	73	88	79	93	83	93	77	96	56
Online news	86	51	68	27	85	54	92	67	90	66
Social media	44	21	29	13	40	21	44	22	46	35
Average sum	73	55	67	53	73	59	74	57	75	54

The percentage shares for each medium and group are presented.
Source: The National Swedish SOM survey, 2010.

Casting additional light on these results, Table 3 presents descriptive figures comparing generations envisioned media use in a crisis depending on daily or more seldom use in everyday life. There are four exceptionally important patterns present. Firstly, far from all of the daily users of a specific medium envision using it during a crisis, which indicates that their media preferences during a crisis are different than their media use in everyday life. The average sum among the public is 73 per cent, but there is much variation. The shares envisioning turning to radio news (91%), TV news and online news (86%) are significantly higher than for newspapers and social media, yet indicate that people envision displacing their habits in favour of other media (i.e. those providing immediate news). Secondly, the percentage share of envisioned media use during a crisis is higher among daily users than among more seldom users, evidencing that daily media use has significance. The figures vary between media and generations, with TV news reaching out in the most balanced way, while there are most substantial differences with regards to digital media. Thirdly, a strikingly high proportion of “more seldom” users in the public express that they are likely or very likely to turn to media when a crisis occurs, especially TV news (83%) and radio news (73%). Fourthly, there are prevalent generational patterns, especially when it comes to the proportion of more seldom users turning to digital media (high for generation X and dotnets) compared to newspapers (high for dutifuls). It is also worth noting that dutifuls envision turning to the media to a less extent than the other generations.

Explaining generational news accessing during a crisis

A logistic regression analysis of the Swedish public (not visualized) has scrutinized envisioned media use during a crisis using the dichotomized variables of daily users vis-à-vis more seldom users for each specific medium. The logarithmic regression coefficients (β) show that online news has the highest positive effect of daily use (1.985**), followed by radio news (1.365**), social media (1.255**), print newspapers (0.584**) and, finally, TV news (0.250*, significant at the 0.01 level). Correspondingly, the negative effect of seldom media use is highest for radio news (-0.973**), followed by online news (-0.729**), print newspaper (-0.584**), social media (-0.478**), and TV news (-0.226*). The main takeaway from these results concerns that daily use consistently scores positive figures among the public, compared to more seldom use. Following this, it is important to identify generational patterns; hence, Table 4 presents a logistic regression analysis for each of the four generations.

TABLE 4

Logistic regression analysis of generations' envisioned media use during a crisis

☐	Dutifuls		Baby boomers		Generation X		Dotnets	
	Daily	More Seldom	Daily	More Seldom	Daily	More Seldom	Daily	More Seldom
☐								
Newspaper	-	0.782** (2.19)	-	-	-	-0.416** (0.66)	-	-0.435** (0.65)
TV news	-	-	-	0.656** (1.93)	-	-	-	-0.553** (0.58)
Radio news	-	0.417* (1.52)	-	0.859** (2.36)	-	-	-	-1.177** (0.31)
Online news	-1.344** (0.26)	-1.398** (0.25)	-	-	-	0.821** (2.27)	-	0.756** (2.13)
Social media	-	-0.689** (0.50)	-	-	-	-	-	0.854** (2.35)

The reported figures are logarithmic regression coefficients (β) and the figures within parenthesis are anti-logarithmic regression coefficients (odds ratio, $EXP(\beta)$). The logistic regression analysis applies a dichotomization where value 1 signifies responses of envisioned media use ("likely/very likely"), whereas 0 signifies the opposite ("not likely/not at all"). Each generation has been measured with the three other generations as reference category and a filter has been utilized to distinguish "daily" and "more seldom" users in each generation. This means that the coefficients report the degree to which a generation is more or less likely than the other generations to turn to a specific media during crisis. Only significant correlations are displayed in the table: *coefficient is significant at the 0.05 level (2-tailed); **coefficient is significant at the 0.01 level (2-tailed).

Source: The National Swedish SOM survey, 2010.

However, as daily use evidently has a strong effect on envisioned media use, the cross-generational comparisons in Table 4 compares "more seldom" in one generation with "more seldom" for the other generations (the three other generations are used as a reference category), but does not offer a record for comparing "daily" with "more seldom" within or between generations. The same principle has been applied for the analysis of "daily" users in the four generations, although the only significant logarithmic regression coefficients (β) appear for online news, which daily users among dutifuls (-1.344**) were far less inclined to use during a crisis than daily users in other generations.

Comparing significant logarithmic regression coefficients (β) for one media at a time among "more seldom" users in each generation, we find that dutifuls (0.782**) are far more inclined to turn to newspapers during a crisis than the other generations, especially compared to the dotnets (-0.435**). Similarly, a crisis will first and foremost activate the baby boomers' TV news consumption (0.656**) much more than the dotnets (-0.553**). Moreover, the baby boomers will lead the uptake of radio news (0.859**), followed by the dutifuls (0.417**), whereas the contrary applies to the dotnets (-1.177**). Instead, the dotnets will accrue their highest figures for news media with regards to online news (0.756**), alongside generation X (0.821**), while dutifuls report strong negative figures (-1.398**). Similar divergent generational patterns between dotnets and dutifuls are identified for social media use during a crisis.

In conclusion, Table 4 shows that the more seldom users of a specific generation tend to turn to media used the most by daily users in their generation. There are important generational patterns, with seldom users among dutifuls turning to radio and newspapers, and dotnets having their positive coefficients for online and social media.

Conclusion

This article has theoretically and empirically scrutinized the interplay of media use in everyday life and crises among four generations. The empiric results have provided more nuanced insights into the two more general assumptions discussed in the introduction. The findings support the assumption that the total envisioned news media use during a crisis, for each of the four generations, exceeds the percentage share of daily users. However, this conclusion does not apply to the use of social media for information gathering during a crisis. The findings also confirm the assumption on intra-generational variance among daily and more seldom users. Results applying to all media and all generations show that not all daily users of a specific medium will turn to this during a crisis, whereas the proportion expressing itself to be using a specific medium is exceptionally high among more seldom users. Ultimately, the findings suggest that, during a crisis, people experience an augmented need for information, turning both daily and more seldom users into news omnivores. Thus, there is more homogeneity across all generations with regards to time spent on media use during a crisis.

The article has yielded interesting results from testing the hypotheses derived from the generation-centric and medium-centric approaches. Generally speaking, the results suggest that generations will predominantly turn to the media they use in everyday life, as outlined by H¹. Nevertheless, while generations' habitual media use evidently has significance, the article has also identified a major transition in media use during crisis situations compared to everyday life. All generations, and especially the dutifuls and dotnets, also envision turning to other media in tandem with those used in everyday life. This suggests they turn to media providing gratification that is found to be especially valuable during a crisis, in line with H². We will now return to the GC/MC model posited earlier, placing the four generations into the model based on their media use in a) everyday life, and b) crisis situations.

FIGURE 2

GC/MC modelling generational media use in (a) everyday life and (b) crises. The *approximate* placing of the four generations into the GC/MC model is based on the findings.

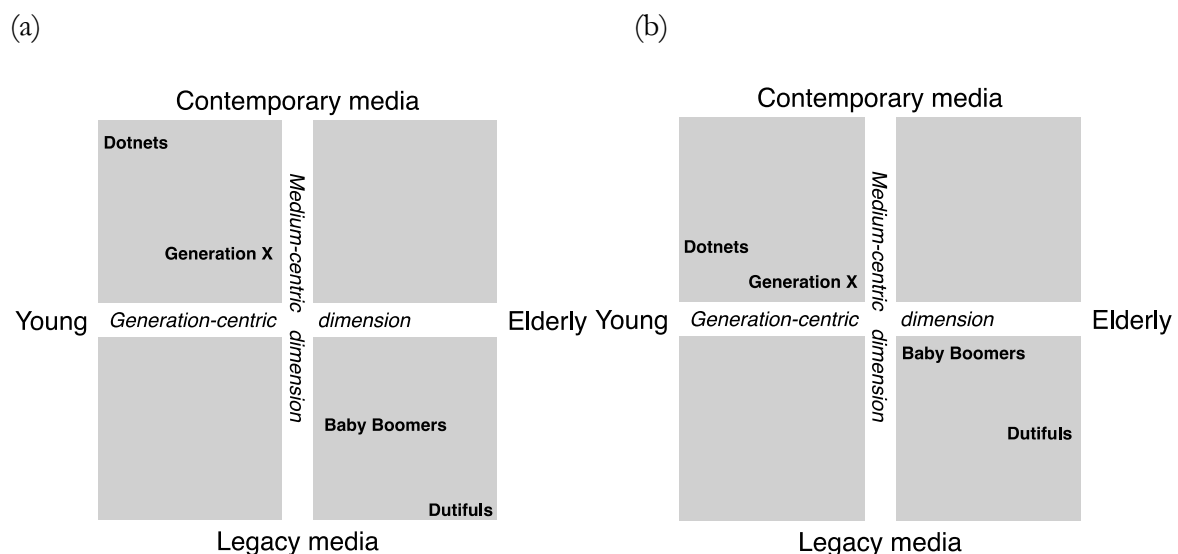


Figure 2a places the generations into the GC/MC model based on their media use in everyday life, displaying the prevalence of cross-generational heterogeneity among the four generations. Dotnets are situated at the upper left corner of the model, being the youngest generation and in accordance with their prolific orientation towards social media and online news in everyday life. Moving horizontally along the generational axis, generation X is placed further towards the middle of the model thanks to their more multifaceted cross-media repertoire yet still with an orientation towards contemporary media. Baby boomers, on the other hand, take a similar position on the lower end of the model due to their cross-media profiling towards legacy media. Dutifuls are situated at the lower right corner, maintaining media use habits strongly linked to the legacy media they became accustomed to in the formative phase of their lives. These findings show that the generation-centric approach maintains currency with regards to everyday life, in line with previously discussed research in the field.

This article, however, applied the generation-centric approach to hypothesize whether generations would predominantly turn to the media they use in everyday life when a crisis occurs (H^1). This hypothesis only gains partial support, as disclosed from a comparison of Figures 2a and 2b, which show increased cross-generational homogeneity rather than increased heterogeneity. The move inwards towards the middle of the model is exceptionally salient in the cases of the dutifuls and dotnets, who are moving towards each other from opposite sides. However, one must recall that dotnets envision transforming their media use during a crisis substantially more than the dutifuls and other generations. Following this, Figure 2b visualizes the dotnets taking the greatest leap towards the middle.

Partial support was gained from findings showing more seldom users within a generation envisioning turning to the media their generation typically uses (for instance, the dutifuls turn to newspapers the most and dotnets turn to social media the most). Nevertheless, the main results show that generations envision broadening the scope of their media use during a crisis, turning first and foremost to TV, radio and online news to provide immediate news reporting. These findings harmonize with the medium-centric approach and H^2 , which posited that a generation would turn to the media that they envision provides the best information on the events (i.e. perceptions on media characteristics). We may synthesize the descriptive findings reporting the highest increases for “other” news media than those typically used (Table 2) and a re-orientation among daily users (Table 3). A displacing effect makes the bottom line, as the findings suggest, that a generation may displace its everyday media use during a crisis, as it turns to real-time reporting in online news sources or live broadcasting through TV or radio. We conclude that there is likely to be a cross-generational homogenization during crises as people typically turn to the news media that provides rewarding gratifications for information and news during crisis events. The complementary analysis of the attitude statement on social media for news indicates that social media only offer a record for such gratifications to some daily users. Events such as a crisis does seem to disrupt everyday life media use, with all four generations envisioning changes to the direction and frequency of their media use, especially the dotnets. This article has paved the way for a better understanding of the mechanisms at play with regards to generational information accessing during a crisis. Nevertheless, many important scientific inquiries remain to be addressed.

Future research should broaden the scope by studying how other media platforms, especially mobile devices, are envisioned to be used during a crisis. Moreover, it should be worthwhile to also address gratification opportunities in time and space (c.f. Dimmick et al., 2011), as well as to study how people envision turning to the media in different situations. Descriptive findings from an explorative analysis (Ghersetti & Westlund, 2013) suggest that the interrelation of media characteristics and gratification opportunities have significance for envisioned media use in different situations. As a continuation of this, researchers may need to revise earlier studies of media gratification to the context of the contemporary mediascape. Researchers should also attempt to

capture the role of specific media throughout the course of the everyday, as well as throughout different stages of a crisis, by analysing which roles news media and social media play in coping, accountability and social cohesion. Lastly, other sorts of research designs are welcome, such as longitudinal studies of usage and media attitudes *before, under* and *after* crises take place. Any such study should not limit its record to single media such as the BBC or Twitter, but instead attempt to encompass many different news and social media outlets.

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