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NEW AUDIENCES, NEW RELATIONSHIP TO NEWS CONSUMPTION?

A longitudinal study of the conditional relationship between age, generation, and political interest in Sweden, 1986-2019.

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Supervisor:	Monika Djerf-Pierre
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Abstract

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During the past decades, the media systems in post-industrial western democracies have undergone dramatic changes which have resulted in a high-choice media environment. Never before have people been able to access so much information, with so little effort, in so little time. These developments have, however, not resulted in a universal increase of news consumption. Quite the contrary, many scholars have reported that the news audiences are increasingly fragmented. Scholars working in the tradition of the opportunity, motivations, and abilities (OMA) framework have argued that the news consumption gap between those interested and uninterested in politics will increase since the sheer amount of media available forces audiences to choose content based on preferences. Increasing generational differences in news consumption have also been noted. These differences have been conceptualized as reflecting both changing news habits as well as changing citizenship norms among younger generations in western post-industrial democracies.

Integrating these two perspectives, this study builds on the OMA-framework and incorporates the literature on generations and citizenship norms. By doing this, I argue that younger generations are more motivated by an internal political interest than older ones when it comes to news consumption. Thus, the aim of this thesis is to investigate the conditional effects of political interest and (1) age on news consumption (2) generational belonging on news consumption, and lastly (3) how these conditional effects have changed over time

Empirically, the study employs a longitudinal research design in the context of Sweden between the years 1986 – 2019. Using repeated cross-sectional data spanning 33 years (N = 123 409) from the nationally representative SOM-institute surveys and utilizing multilevel regression modelling. The results show that the independent effect of political interest and age on news consumption has increased over time. As for the conditional effects, this thesis found that there were no age or generational differences in the impact of political interest in the earlier time periods, but that these differences have increased over time. In later years, the impact of political interest on news consumption is greater among younger people and generations. The theoretical implications of these findings are that we are perhaps not only dealing with a changing media environment but also changes in citizenship norms regarding news consumption.

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1. Introduction

1.1 Background and societal relevance

During the last decades the media choices available to citizens have increased, and continues to increase, dramatically. The proliferation of information channels, such as cable TV, internet media and streaming services just to name a few, has led to a high-choice media environment in which people are able to access so much information, with so little effort, in so little time.

Despite this never-before-seen accessibility, it has not resulted in a universal increase of news consumption. The trend in many countries is that news consumption is going down (Aalberg et al., 2012, 2013) at least for traditional outlets. Furthermore, the amount of people who say that they actively avoid news seems to be increasing (Newman et al., 2019).

This "paradox of choice" (Edgerly, 2021:2), has attracted both interest and concerns. These concerns are rooted in the notion that an increase in the media supply forces people to become more selective in their media choices (Bennett & Iyengar, 2008). As such, individual level preferences are thought to become increasingly important when predicting news consumption behaviours (Prior, 2007). In turn, this growing preference-based media selection have been theorized to increase political polarization, where people only select attitude consistent information (Stroud, 2010) or a news consumption gap, where people who are interested in news and politics continue to consume news while the uninterested increasingly tune out (Prior, 2007). These dual processes of "stratamentation" (Bennett & Iyengar, 2008:717) could have democratic implications. One of the most important functions of the news media in most democratic theories is to provide "citizens with the information they need in order to be free and self-governing" (Strömbäck, 2005:322). Since news consumption is positively related to political knowledge and participation (Prior, 2007; Ksiazek et al. 2010) audience fragmentation along preferential lines might exacerbate already existing inequalities in political involvement.

Related to this development, scholars have noted increasing generational gaps in news consumption, especially among those generations who have grown up and been socialized in the high-choice media environment. Most scholars agree that age is one of the most important demographic predictors of news consumption. Younger generations tend to consume less traditional media (Newman et al. 2019; Aalberg et al. 2013) relying instead to a greater degree on online media to get their news, with social media playing a prominent role in their news diets (Holt et al. 2013; Karlsen et al. 2020). Indeed, in a recent report on the online behaviour of Swedes, the most popular way of consuming news for adolescents was via social media (Internetstiftelsen, 2021). So, while it seems like social media and digital media can compensate for a generational decline in legacy media consumption (Trilling & Schoenbach, 2013; Karlsen et al. 2020), there is still uncertainty about how much people learn from these sources. Recent studies suggest that consuming news from social media does not compensate for not using traditional media when learning about politics (Shehata & Strömbäck, 2021; van Erkel & van Aelst, 2021). Thus, apart from a preference based fragmentation of the audience, understanding age and generational differences in news consumption is of utmost priority.

Even though these two trends in audience research have received ample attention among scholars, much less has been done to combine the perspectives. To better understand news consumption in the high-choice media environment we need to look at the interplay of these factors. This thesis does exactly that

by investigating the impact of political interest on news consumption, for different ages and generations, over time.

1.2. Academic relevance and knowledge contribution

One of the most prominent strands of research in understanding news audience behaviour is the *opportunity, motivation & ability* (OMA) framework (Luskin, 1990; Delli Carpini & Keeter, 1996). This framework stipulates that all kinds of political behaviour, such as news consumption, is determined by an interplay of these three sets of factors. Opportunity is a macro level factor and refers to the structural settings in which media choices occurs, including the availability of both news and non-news media as well as specific information technologies. Motivations and abilities, on the other hand, are both individual level factors. Motivations include such things as having a political interest and a sense of political efficacy while ability relates to the skills people have in obtaining and comprehending the news (Luskin, 1990; Delli-Carpini & Keeter, 1996).

Building on the OMA-framework, Markus Prior (2007) argued that the opportunity factor can either increase or decrease the impact of the individual level factors of motivations and abilities on news consumption. in the low-choice era the opportunity for audiences to self-select was limited because there was only a limited selection of media outlets. This made both the ability and motivation factors less important in structuring news consumption. People did not have opportunity to switch channels to something they enjoyed more than the evening news or browsing the web for entertainment. Thus, an individual with low motivation for engaging with political information could still be exposed to the news as an inadvertent audience (see also Bennet & Iyengar, 2008). In this new era of high-choice, with ample opportunity to self-select based on content preferences, political information "comes mostly to those who want it" (Prior, 2007:26).

Previous research working in the tradition of the OMA-framework have further investigated the interplay of these factors. Scholars in the comparative tradition have focused how certain characteristics of the media system can promote greater news consumption among citizens, such as a strong public service broadcaster or a newspaper centric media system (Aalberg et al. 2012,2013; Shehata & Strömbäck, 2011; Toff & Kalogeropoulos, 2020). As for motivations and abilities, research does indicate that these are becoming more important over time. What has especially stood out in the research is the impact of an individual's political interest on news consumption (Strömbäck et al. 2013; Aalberg et al. 2012; Bergström et al. 2019).

What has been lacking in the previous research is nuance. One key assumption of the OMA-framework is that greater opportunities for self-selection in the media environment necessarily leads to greater impact of individual level motivations and abilities. As Prior (2007) argued: "news consumption, learning about politics, and electoral volatility have changed not so much because people are different today, but rather because the media environment is different. People have not necessarily changed; they have merely changed the channel" (2007:19). A core assumption of the above research is that changes in the media environment affects all groups similarly.

However, scholars focused on generational gaps have noted that the decline in news consumption, institutional politics, and traditional forms of participation among younger people might be due to

changing citizenship norms (Dalton, 2020; Bennett, 2008). According to this literature, older generations are characterized by what has been described as civic duty norms, where citizens had an obligation to keep informed about the ongoings in society often delivered through a one way mode of communication, for example newspapers or the television newscast (Bennett, 2008). On the other hand, younger generations have been described as leaning towards more self-actualizing citizenship norms, characterized by a weaker sense of citizen obligations and greater sense of individual purpose (Bennett, 2008), and favouring voluntary associations instead of civic society organizations (Dalton, 2020). According to this new style of citizenship norms, "democratic practice has moved out of the realm of ought-to and into the territory of optional, needing to be chosen and decided" (Thorson, 2015:5-6). This might have important consequences since a civic duty to keep informed has been shown to be an important predictor of exposure to news both on and offline (Trilling & Schoenbach, 2013; Toff & Kalogeropoulos, 2020). If staying informed via the news is increasingly viewed as optional among younger generations, the impact of political interest on news consumption might be stronger for these groups.

Some studies have noted these developments, arguing that when media choices become more individualized it opens up for a zone of heterogeneous socialization where "[t]he transmission of singular cultural values from one generation to the next will get more difficult. Future studies need to explore whether news consumption gaps increase more among young citizens" (Aalberg et al., 2013:299). This research has, nonetheless, been very limited. Some exceptions are however worth mentioning. In a recent study, Anderson (2019) found that civic engagement – having a political interest and being engaged in political discussions – was more important for younger people when it comes to news consumption. These same results were found by Boulianne & Shehata (2021) who also observed that the impact of political interest on online news consumption was greater for younger people.

Still, the literature lacks longitudinal research. Cross-sectional studies (such as Andersson 2019; Boulianne & Shehata, 2021) might suggest that political interest is a more important predictor for certain groups, but it doesn't tell us if we are simply dealing with life-course effects (Quintelier, 2007) or a greater generational shift in citizenship norms (Bennett, 2008). If the former is true, we can expect that as younger generations come of age and accumulate education, social and political ties as well as greater responsibilities, they will increasingly incorporate more news consumption in their daily life. On the other hand, research suggests that news habits are formed early in life and rather stable over time (Westlund & Weibull, 2013; Shehata, 2016; Edgerly et al., 2018). Thus, generations growing up in the high-choice media environment, with potential weaker norms of keeping informed through traditional news, might exhibit greater gaps in news consumption and political participation between those with an interest in politics and those that lack those traits. To investigate this, we need studies that look at these developments over time. This study will therefore also contribute to the literature by providing longitudinal data to see if the relationship between age, generation and political interest has grown stronger as we have transitioned from a low-to a high-choice media environment. Both on- and offline.

In sum, this thesis will contribute to both a deepened understanding of news consumption in the high-choice media environment as well as the development of the OMA-framework by incorporating the literature on changing citizenship norms. It does so by investigating (1) whether the impact of individual level motivations on news consumption is stronger among different generations, and (2) if this relationship has changed over time. To my knowledge, no other study has approached the subject of news consumption from this perspective.

1.3. Study aims and research question

Against this background the research on audience behaviour in the high-choice media environment can be summarized in as follows:

Previous studies have shown a positive relationship between higher levels of political interest as well as between age and news consumption, but they have not sufficiently investigated whether the impact of individual level motivations on news consumption differs between generations. Furthermore, there is still debate over whether the generational gap that has been reported, where older generations use traditional outlets while younger people access news online in greater numbers, will result in greater or smaller gaps in news consumption. Some scholars argue that the web facilitates incidental exposure to news (Fletcher & Nielsen, 2018) which might decrease gaps in news consumption (Karlsen et al. 2020) while others point to the potential for online media to enrich the already rich (Kümpel, 2020). Thus, more research is needed to examine the impact of individual level motivations both off and online. Lastly, we need more longitudinal data that capture developments over time as we have transitioned from a low- to a high-choice media environment.

Hence, this study's aim is to provide a deeper understanding of news consumption in the high-choice media environment by investigating the conditional effect between political interest and (1) age on off- and online news consumption (2) generational belonging on off- and online news consumption, and lastly (3) how these conditional effects have changed over time. To reach this aim, the following overarching research question will guide the thesis:

How does age and generation condition the relationship between political interest and news consumption over time?

1.4. Disposition of the thesis

The next chapter will outline the theoretical framework that will guide this thesis. It begins by introducing the major cornerstone for this work, the opportunity, motivations, and abilities (OMA) framework. The chapter also highlights Webster (2014) writings on the marketplace of attention which offers another, rather different, perspective on the high-choice media environment. The framework also includes theories on changing citizenship norms and the effects this might have on news consumption. These three strands of theories are then combined into what I have chosen to call a longitudinal and generational OMA-framework. Guided by the theoretical framework, chapter 3 presents an overview of previous research and identifies specific hypotheses which are then summarized in chapter 4. Chapter 5 focuses on methodology and data by describing operationalizations and modelling techniques. This chapter also contextualizes the study by discussing the Swedish media system and audience. Chapter 6 is devoted to the results and findings of the study. Closing the thesis, chapter 7 summarizes the findings and provide answers to the hypotheses and research question. Here I will also discuss the contributions and limitations of the thesis as well as provide avenues for future research.

2. Theoretical framework

This chapter introduces the theoretical framework that will act as a guiding lens for this thesis. First, I describe the widely used opportunity, motivation, and ability (OMA) framework along with Prior's (2007) influential continuation of this framework through his conditional learning model. After this, a critique of the OMA-model is presented, with a special focus on Webster's (2014) infrastructural perspective. Furthermore, the literature on generations and changing citizenship norms is discussed. Closing the chapter, an effort is made to combine these perspectives into a generational & longitudinal OMA-framework.

2.1 The opportunity, motivation, and ability (OMA) framework

Perhaps the most utilized theoretical model in news audience research is the opportunity, motivation, and ability (OMA) framework. Developed by Robert Luskin (1990), the framework states that any political behaviour among the public is conditioned by three factors, opportunity, motivation, and ability respectively. Luskin (1990) argued:

> *"Bedouins in the Sahara do not become champion swimmers; ordinary people who enjoy music do not compose great symphonies; professors with research assistants do not do their own leg work. They lack the opportunity, the ability, and the motivation, respectively"* (1990:334-335).

What opportunity, motivation and ability entails depends on what kind of behaviour we are more specifically interested in. With regards to news media consumption, opportunity broadly refers to the availability of news media and media technology in the media environment (Luskin, 1990; Delli Carpini & Keeter, 1996). Media environment in this sense has been conceptualized both in terms of large national contexts with different media systems (Hallin & Mancini, 2004) as well as more localized media markets (Delli Carpini et al. 1994). Motivation refers to how motivated people are in seeking out political information and is considered by many to be a strong predictor of political knowledge and news consumption (Luskin, 1990; Delli Carpini & Keeter, 1996:184-186). Motivation has been hypothesized to be the results from many factors, but the most prominent is a political interest, a sense of political efficacy as well as civic duty (Luskin, 1990; Delli Carpini & Keeter, 1996; Prior, 2007). Finally, the abilities part of the framework is rather broad and encompasses both physical attributes, such as the ability to see and hear as well as cognitive abilities such as the ability to process, contextualize and store political information (Prior, 2007:29-30). In Luskin's (1990) study, for example, he demonstrated that intelligence had a strong effect on political sophistication, while Delli Carpini & Keeter (1996) found that socioeconomic indicators, for example education and income was positively related to political knowledge.

Important to note is that these three factors should be seen as largely conceptual and most often not corresponding in a one-to-one fashion in the real world (Delli Carpini & Keeter, 1996). For example, education is mostly viewed as an individual level ability in the OMA-framework since it increases the cognitive capabilities in individuals (Luskin, 1990; Delli Carpini & Keeter, 1996) but in acquiring an education, people might also develop a political interest (individual motivation) because they might be learning about the political world and, as a result, start finding it exciting.

The strength of the OMA-framework is that it provides a clear integrated model to the study of news use. In order to consume news, the media environment must first and foremost be able to provide it. The availability of news is not enough though. People must have the motivation or interest to consume news as well as the ability to understand the news and put it to use. In other words, if there is no opportunity to consume news, individual characteristics will be less important, no matter how motivated and able people are. At the same time, in an environment where there is great availability of news those with greater motivation and ability will benefit the most from this (Luskin, 1990: 337-338).

2.1.1 Prior's model of conditional political learning

The original OMA-framework focused on the effects that opportunity, motivation, and abilities have on news consumption and political knowledge among the citizenry and provides us with an integrated framework of how we can understand news consumption. Some scholars, however, have argued that the model needs updating to better grasp news consumption and its consequences in the high-choice media environment.

Writing in the mid 2000's, Markus Prior argued in his book *post-broadcast democracy* (2007) that the original OMA-model was too static and missed important interactive effects by mostly looking at the direct effects of the opportunity, motivation and ability factors, treating them as independent of each other. This is a bit of a simplification, after all Luskin (1990) did highlight that the factors are interconnected stating that "no one factor - neither information, nor motivation, nor ability - can have an effect unless the other two are nonzero. The greater the others, the greater the effect" (1990:338). Nevertheless, Prior (2007) argued that this underwrites the importance of the opportunity factor of the framework. Because of this, Prior proposed what he called the conditional political learning model, which contains the same three factors that are found in the original OMA-framework, but it moves the opportunity factor to the forefront. In this model, both individual level motivations and abilities are "conditional on the media environment" (Prior 2007:33).

Regarding individual motivation, one way a media environment can condition the impact of this factor is how efficient it is at satisfying individual preferences. Writing about the earlier tv-broadcast era, Prior (2007) outlined how the networks had similar scheduling practices, placing the evening newscast at the same slots during primetime. Additionally, due to the low number of outlets, people might have been tuning in for the latest top series but decided to continue watching the news afterwards. This made the earlier media environment inefficient in satisfying individual preferences. People were exposed to the same news broadcast, whether it be due to people intentionally tuning in or simply being incidentally exposed to it as an inadvertent audience. As for individual ability, the impact of this factor depends on what kind of skills the media in the media environment require. Looking back once again, Prior (2007) argued that before broadcast television, news was more difficult to engage with and understand. The news required a relatively high level of ability, for example certain level of reading skills. With the introduction of television, news became more accessible and engaging because "television offered politics in moving images and reported the news of the day in simple words. Politics now had faces" (Prior 2007:14). As such, Prior (2007) argued that the media environment during the height of the broadcast era was a historical parenthesis. The combination of an inefficient media system restricting preference choices as well as television making news more accessible, contributed to news consumption gaps being smaller and, as a result, a larger share of the electorate participating in politics.

As the media environment has changed, with proliferation of channels both on- and offline, Prior (2007) argued that, once again, the impact of individual level motivations and abilities will change. The biggest difference in this new environment is that the high-choice media environment is magnitudes more efficient in supplying content. Due to the almost unlimited choices available, people will increasingly have to make media choices based on their preferences. Thus, we will see increasing gaps in news consumption were people interested in news and politics can engage with news whenever and wherever they want, while people less interested increasingly tune out. In short "Political information in the current media environment comes mostly to those who want it" (Prior 2007:26).

What Prior (2007) contributes to the OMA-framework is the notion that individual level motivations and abilities are not just important – after all that is exactly what the original model states – but that they will become more important over time as media choices increase. To investigate whether this "voluntary basis of political inequality" (Prior, 2007:266) is occurring we do not only need to look at the components of the OMA-framework but also how the impact of these have changed over time.

2.2. Critique of the OMA-framework

An important theoretical departure from both the OMA-framework comes from James G. Webster in his book *The marketplace of attention* (2014). In his book, Webster (2014) disagreed with the common notion in media choice research that people approach the media with *exogenous* preferences – that is, preferences that are formed outside of the media and are relatively stable across time – and that these preferences in turn guide media use. We can see these tendencies to put a premium on people's preferences in the OMA-framework as exemplified by Prior (2007) in that they presuppose that people have stable preferences and act accordingly.

Webster (2014), on the other hand, stated that a focus on people's preferences only get us so far in explaining media use. Rather than having strong exogenous preferences, people's tastes are constantly in flux and variable. More typically than basing their media use on rational choices, Webster (2014) argued, people "assess a few salient factors, rely on a few rules of thumb and make the best decision they can. These conditions of choice making are referred to as "bounded rationality" (2014:36). This bounded rationality, opens the potential for people to form preferences *endogenous,* meaning within, the media system. This is done through information regimes which is "the lens through which users and media make sense of the digital marketplace" (Webster, 2014:17). For users these are for example recommendation systems and popularity measures (think recommendations like "others like you also liked" and "most popular articles"). These systems make it possible for users to sort through the endless media choices and find what they want. For media producers, big data and audience metrics allow for them to adapt their products accordingly to cater to people's preferences and try to push people in engaging with certain media. As such, in this marketplace of attention "the forces of cultural production and consumption conspire to produce an environment that is at once diverse and concentrated. Although no two people will have the same diet of media, across the population there is a surprising commonality to what we see and hear (Webster 2014:3).

This surprising commonality in media exposure arises from the interaction between user preferences and media structures. There is a tendency in the marketplace of attention to enrich the already rich, favouring things that are already popular (Webster, 2014). This power-law distribution or long tail distribution posits that the bulk of attention is concentrated among a few outlets with audiences flowing

between these and smaller, more niche outlets. Resulting in a "massively overlapping culture" (Webster, 2014:160).

This infrastructural perspective goes against the predications made by Prior (2007) and the OMA-framework, which argues that we are moving towards a more fragmented media landscape with greater division between those interested and uninterested in news (Strömbäck et al. 2013; Ksiazek et al. 2010). Scholars working with this infrastructural viewpoint have pointed out that the gaps reported in news media consumption might be overstated. Investigating the generational gaps in news consumption that is commonly reported in news media use using survey data (Ksiazek et al. 2010; Strömbäck et al. 2013) Taneja and colleagues (2018) utilized tracking data to measure what websites their panellists accessed. The result showed that the generational gaps were smaller than many earlier studies have suggested and that the generations consumed mostly the same popular outlets (Taneja et al. 2018: 1809). Tackling the hypothesis that greater choice in the media environment necessarily leads to greater fragmentation and segmentation (Prior 2007; Bennett & Iyengar, 2008), Fletcher & Nielsen (2017) employed a comparative design in their study of six western democracies as well as looking specifically at both on- and offline audience fragmentation. It could be argued that, since the internet contains almost endless media choices, online audiences would be more fragmented. The study found no support of this claim. The online news environment "is no more fragmented than the comparatively low-choice offline news environment" (Fletcher & Nielsen, 2017:478), and in some cases the online news audiences seem to be even less fragmented.

2.3. Generations and Citizenship norms

Another note of contention towards the OMA-framework and the conditional learning model can be found in the assumption that it is mainly the media environment driving changes in news consumption. As Prior (2007) stated: "People have not necessarily changed; they have merely changed the channel. And they would have done it sooner, had they been given the chance" (2007:19). However, scholars studying generations and citizenship norms have hypothesized that it is not only the media environment that has undergone dramatic changes in recent decades, but the citizenry have also changed. Of central importance here is the sociological concept of generations.

The sociology of generations has been greatly influenced by the German sociologist Karl Mannheim (1952). Writing in the 1920s – although his works were published much later – Mannheim argued that the construction of specific generations cannot be viewed as a purely biological phenomenon. Borrowing from Marxism's class distinction, Mannheim proposed the socially constructed generations as another way – either complementary or alternative – to understand social stratification in societies. Like Marxism, Mannheim's concept of generations is also concerned with the position of social actors in society by conceptualizing generations as social location, as opposed to biological generations based on birth years. Being a part of a specific birth cohort is an important prerequisite for generational belonging but "Mere contemporaneity becomes sociologically significant only when it also involves participation in the same historical and social circumstances" (Mannheim, 1952: 298). Thus, according to the sociology of generations people growing up and having their formative phase of the lives at similar times and contexts tend to develop similar experiences, values, and practices in that "early impressions tend to coalesce into a natural view of the world" (Mannheim, 1952:298).

Scholars coming from this generational perspective (Zukin et al. 2006; Dalton, 2008, 2020) have criticized those who have lamented the apparent decline in electoral turnout and disengagement from political life among younger people in post-industrial western democracies (see for example Putnam, 2000). What these scholars (Zukin et al. 2006; Dalton, 2008, 2020) instead proposes is that what we might be seeing is not so much a decline in citizenship engagement and norms, but rather a generational change of them.

Perhaps most ambitiously are Zukin and colleagues (2006) work which proposed a typology of four distinct generations that constitute the US population, shaped by the social, economic, and political cultures in which they grew up in. In turn, they argued that these shared experiences influenced how these generations engaged with political and civic participation. The four generations that Zukin et al. (2006:14-16) proposed are the dutifuls (born before 1946), which were born in a political and cultural context in which duty and sacrifices were central due to their close proximity to the second world war. Most of this generation was also born before the explosion of the first atomic bomb and many of them have memories of it in their early years. The baby boomers (born between 1946-1964), which grew up in a prosperous post-world war period and experienced, among other things, the civil rights movement and sexual revolution in adolescent or early adulthood. By virtue of the sheer size of the Baby Boomer generation, they also had a large impact on the political culture in the second part of the 20th century. Generation X (born between 1965 – 1975) grew up in a culture of political and economic instability in the late 70s and early 80s, for example the Iranian revolution and oil crises. Last are the DotNets or millennial generation (born 1976 or later) which are most prominently characterized as coming of age at the same time as the internet. By virtue of this historical location, information has always been readily available and virtually costless to this cohort.

Even though Zukin et al (2006) acknowledged that their generational cohorts are somewhat arbitrary, the authors did find generational differences in political participation that they argued are too large to simply be the product of individual life-courses. On the one hand, they found that younger generations were less engaged in "traditional politics" (for example having a membership of political party, expressing interest in politics, and follow the news about public affairs). On the other hand, for civic or economic participation (i.e., charity work or boycotting or "buycotting") they were no less, and sometimes even more, active participants (Zukin et al, 2006:189). They also found that people in the GenX and millennial generation were less likely to subscribe to the notion that citizenship carried certain obligations or duties to participate in politics. Also, even when the younger generations did engage in civic or economic action, it was not necessarily viewed as a political act (Zukin et al. 2006: 95-104).

While not specifying specific generations, Dalton (2008, 2020) argued that the developments that have occurred in western democracies in the second half of the 20th century has given rise to newer forms of citizenship norms and participation practices among younger people. During this time, these countries saw an unprecedented economic growth as well as a cognitive mobilization due to near universal education of the citizenry. This process of social modernization, where the socioeconomic conditions have opened up more possibilities for citizens, has made traditional social networks and institutional loyalties less rigid. Such a public is not content with the occasional act of voting which "narrows (and blurs) the choice of policy options and limits the frequency of public input" (2020:61). These socioeconomical changes in the citizenry are furthermore thought to influence the values of the electorate from materialistic to post materialistic (Inglehart, 1990). These post materialistic values tend to promote individualized ways of participation and avoiding forced commitments (Marien et. al 2010).

Based on these developments, Dalton (2008) outlined two broad categories of citizenship. The *duty-based citizenship*, which primarily incorporates the norms of social order and institutionalized forms of participation. It frames citizens as having duties and responsibilities towards the state. The second, more recent, category is *engaged citizenship* which is more liberal and communitarian, with less focus on institutional politics. At the center of this citizenship norm is political autonomy, the notion that one should form opinions independently of others, this engaged citizen "is willing to act on his or her principles, be politically independent and address social needs" (Dalton, 2008: 81). While these citizenship norms should not be seen as mutually exclusive, Dalton (2008, 2020) argued that younger people are more influenced by engaged citizenship norms.

Lance Bennett (2008) also claimed that the sense of citizenship has changed in societies. The most important reason for this shift is that "young people are far less willing to subscribe to the notion held by earlier generations that citizenship is a matter of duty and obligation" (Bennett 2008:14). Thus, Bennett distinguished between what he called a dutiful citizen model (DC) and an actualizing citizen model (AC). These are similar to Dalton's conceptualization (2008, 2020) in that the former (DC) model is more focused on institutionalized forms of participation and formal political organization while the latter favour less institutionalized forms of participation and loose networks of community action in combination of a mistrust of authority and officials. Importantly, Bennett also highlighted the relation between these types of citizenship norms and news consumption. Conventional news is, Bennett (2008) argued, designed for the DC citizens both in content and purpose. The news is filled both with the views of government officials and delivered in a top-down one-way model of communication. This structure of the news media system in combination with a wider rejection of the norm that consuming news is a civic duty has resulted in that "young people simply do not believe that following and learning about various issues will translate into the power to help decide them (Bennett 2008:19).

Thorson (2015) argued that while there might be consensus that younger citizens are moving away from older duty-based norms, the important question is "what we are moving *toward*" (Thorson, 2015:10, emphasis in original). What new civic norms may guide citizens in the late modern societies? Based on her interviews with youth in the US, Thorson (2015) found that the most widely shared norm about a good citizen was that any specific expression of political participation, such as following the news, was optional, a "choice left up to the individual. And it is a choice driven by personal interest" (Thorson, 2015:17). Additionally, since good citizenship was increasingly viewed as optional, based on personal interest, young people did not judge those who chose to disengage because of a lack of interest. It was not seen as a prerequisite for being a good citizen. To engage with politics have moved "out of realm of ought-to and into the territory of optional, needing to be chosen and decided" (Thorson, 2015:5-6).

What this "do-it-yourself" (Thorson, 2015) citizenship norm suggests is that individual motivations are increasingly a key resource in political participation and engagement. This is based on two broad trends. First, the move away from traditional membership society, characterized by groups loyalties and routine attention to the news media, means that there are fewer pathways for those initially unengaged to foster a political interest. Secondly, if political engagement is increasingly viewed as optional and more as a lifestyle choice, there might be a weaker social stigma for opting to disengage from the political world all together. In sum then, Thorson (2015) claimed that this youth civic culture "offers extraordinary possibilities for self-made policy experts and civic innovators but provides little guidance for those for whom politics is at best tangential and at worst irrelevant to daily life" (Thorson, 2015:5).

The theories on changing citizenship norms thus suggests that the growing importance of individual level motivations and abilities might not only be attributable to increasing opportunities in the media environment as hypothesized by Prior (2007), but we might also be dealing with a generational change in citizenship norms. Since these newer forms of citizenship norms are thought to be more prevalent among younger people (Dalton, 2008; Bennett, 2008; Thorson, 2015) I will therefore incorporate these theories into the OMA-framework and investigate whether the effect of individual level motivations on news consumption might be stronger for some age groups and generations.

2.4. A longitudinal & generational OMA-framework

Compiling the theoretical foundations, we can begin to sketch out a model that will guide the remainder of this thesis and provide greater insights into how audiences take shape in the high-choice media environment.

The OMA-framework forms the basis of the theoretical model. As opportunities in terms of media choice have grown during the transition from a low- to a high-choice media environment the OMA-model suggests that this will increase the impact of individual level motivations on news consumption (Luskin, 1990; Delli Carpini & Keeter, 1996; Prior, 2007). This means that the model does not only need to account for the effect of individual level motivations on news consumption but also how the impact of these factors may have changed over time.

The infrastructural perspective supplied by Webster (2014), while critical of the premium that the OMA-framework puts on individual preferences, highlights the fact that media systems are not passive objects waiting to be consumed - they are active in creating audiences. This is perhaps most relevant in the case of digital and social media in which audience preferences and media recommendation systems conspire to create both diverse but also a massive overlapping culture (Webster, 2014). The model should therefore incorporate both online and offline news consumption.

Lastly, theories on changing citizenship norms and political participation suggests that the norms around news consumption as a civic duty is weakening, especially among younger people (Zukin et al. 2006; Dalton, 2008; Bennett, 2008; Thorson, 2015). The model should therefore also incorporate a generational perspective by investigating whether the effect of individual level motivations differ between demographics.

3. Research review & hypotheses

This chapter provides an overview of previous research guided by the theoretical framework that was laid out in the previous section and present specific hypotheses. First, following the OMA-framework, research on individual level motivations, specifically the role of political interest, is reviewed. Second, incorporating a generational approach, studies on age and generational news consumption are also presented. In relation to this, empirical studies focusing on online news consumption and its effect on audience fragmentation are also highlighted. Third, the literature on changing citizenship norms is put forward and discussed in relation to the OMA-framework. Lastly, research on specific news media is reviewed to identify relevant distinctions for the coming analysis.

3.1. Political interest and news consumption

The central argument in the OMA-framework is that as opportunity structures have opened up for greater self-selection in the high choice media environment, individual level motivations become more important predictors of news consumption. The sheer number of media available forces people to choose how to best spend their time and as such, preference-based choice will increasingly determine news use (Prior, 2007). Perhaps the most important individual level motivator that has emerged in the literature is that of political interest.

Conceptualized as an internal motivation, it has been suggested that people with more political interest "notice more of the political information they encounter and think more seriously about the political information" (Luskin, 1990:335). Indeed, studies continuously show that political interest is one of the most important individual level predictors of news consumption, both in single country studies such as Sweden (Strömbäck et al. 2013) The Netherlands (Trilling & Schoenbach, 2013) or the US (Prior, 2007) as well as in comparative studies (Aalberg et al.2012; Gorski & Thomas, 2021). Individuals with higher interest in these countries do not only consume more news and participate more in politics (Ksiazek et al. 2010; Prior, 2007) they also seem to be more politically sophisticated and informed (Luskin, 1990; Delli Carpini & Keeter, 1996). In sum, Political interest is an important predictor of news consumption in today's high choice media environment.

Still, studies examining the claims that political interest is not only an important predictor of news consumption but also that it has become more important over time as media choices have increased, has yielded mixed results. Some studies show that individual motivations are becoming more important in the high-choice media environment. In Prior's original study of US households (2007), he utilized a two-wave panel design to measure the effect of an individual's relative entertainment preference on news consumption both before and after cable entered the household. The results showed that the introduction of cable TV in households – providing greater opportunities for media choice - was related to greater preference-based gaps in news consumption. In Sweden between 1986-2010, Strömbäck et al., (2013) found that political interest was not only an important predictor of news consumption but that it had become more important predictor of news consumption regardless of media type, with the sole exception of tabloids. Using the same data but between 1986-2015, Dahlgren, (2019) studied both ideological and preference based selective exposure to public service news. The result showed that while political selective exposure was very small, preference based selection was highly significant and increased over time.

Other studies find small over time changes in the importance of political interest. In their comparative study of 31 countries in Europe between 2002-2010, Aalberg et al., (2013) found that tv news exposure had indeed decreased, but that this decline was rather similar across different levels of political interest. Looking specifically at people tuning out from news, Gorski & Thomas (2021) found that news-avoidance was increasing in the internet age and low political interest was an important predictor of tuning out of news. However, the results did not indicate that the impact of political interest had increased over time.

One explanation for these differing results might be the choice of outlets measured. Some studies opt to measure consumption of more traditional, or legacy media, outlets (Strömbäck et al. 2013; Dahlgren, 2019; Aalberg et al. 2013) while others use broader non-specific measures of generalized news use (Gorski & Thomas, 2021). Another explanation can be traced to different measures of news consumption whether it be an additive index of multiple news outlets (Strömbäck et al.2013) or minutes spent watching tv (Aalberg et al. 2013). Also, country-level differences might also play an important part here. Country-specific media system has been shown to provide different opportunities for citizens to be incidentally exposed to and learn from news (Shehata & Strömbäck, 2011; Esser et al. 2012; Aalberg et al., 2013; Fraile & Iyengar, 2014) as well as some countries having stronger norms about press freedom and importance to stay informed about public affairs (Toff & Kalogeropoulos, 2020). Another problem is the question whether one measure exposure to, or avoidance of news. Higher political interest might be a strong predictor of higher total news consumption (Strömbäck et al. 2013) but with regards to avoidance of news, a modest or very small amount of political interest might be sufficient to stay tuned in (Trilling & Schoenbach, 2013; Dahlgren, 2019).

What is clear however is that there is a lack of longitudinal research on the changing impact of political interest on news consumption. This is especially relevant today as many legacy news consumption outlets have increased their online presence to make up for declining print or broadcast numbers. But can this pivot decrease news consumption gaps? The infrastructural perspective proposed by Webster (2014) suggest that as people spend more time online, the power-law distribution of the web should steer people towards already popular news outlets and contribute to a decline in preference-based consumption gaps. This is contrary to the predictions made by the OMA-framework (Prior, 2007); thus, the first hypothesis investigates these somewhat conflicting claims. Additionally, since this study is also focused on the Swedish context, the first hypothesis will also allow us to revisit the findings from Strömbäck et al. (2013) to see if the trends identified in their article continues to this day.

H1: The impact of political interest on news consumption has increased over time.

3.2 Age, generation, and news consumption

As previously mentioned, age has been shown to be one of the most important demographic factors for predicting news consumption (Ksiazek et al, 2010; Aalberg et al., 2012; Strömbäck et al., 2013; Toff & Kalogeropoulos, 2020) and young peoples' engagement with news is usually characterized by patterns of avoidance (Shehata, 2016; Edgerly et al. 2018). The reason for these differences is often attributed to life-course effects (Quintelier, 2007). Younger people often have less of those resources that have been found to be related to higher levels of news consumption at their disposal. Resources that older people have accumulated during their lifetime. These are, for example education, income, as well as social and political ties. Additionally, being in a formative phase of their life, younger people might prefer to socialize with friends, playing games and doing sports rather than watch the news. In short, the life-course perspective assumes that differences in news consumption are "mostly tied to cohort members'

specific place on a developmental continuum, and thus will change in predictable ways as these members age (Zukin et al. 2006:11).

While generally acknowledging that people to a certain extent change their news behaviors as they grow older, the generational perspective argues that age should not be studied in isolation and rather be seen as a guide to belonging of a specific generational cohort (Aroldi & Columbo, 2007; Corsten, 1999). This generational approach builds on the sociology of generations developed by Mannheim (1952). These socially shaped generations differ from each other based on their shared social locations which in turn is the result of their common experiences of historical and social processes. In short, people born at similar time and places develop experiences, practices, and values in their youths - the most formative phase of life – and when formed, they are rather stable. Building on this generational approach, scholars (Westlund & Weibull, 2013; Westlund & Färdigh, 2013; Bergström & Wadbring, 2012).) have argued that these shared social practices formed early in life could also be important in forming peoples' news habits. Aroldi & Columbo (2007) argue:

> *"Subjects who during their formative period (childhood, adolescence, early adulthood) saw the birth of a medium that then became widespread tend to consider this medium […] as an integral part of their cultural landscape and retain a certain inertia in its definition also in the subsequent phases"* (2007:39)

Thus, "the media that were important when people grew up remain central as people grow older" (Westlund & Färdigh, 2013:187). However, there is no agreed upon definition of generations and to an extent the conceptualization of generations always necessitates simplifications. Scholars have therefore approached the concept somewhat differently.

Using data from Sweden to investigate how individuals consumed tabloids – be it in print, online or mobile – Westlund & Färdigh (2013) conceptualized three distinct media generations: The print generation (people born between 1920s – 1940s) the online generation (1950s – 1970s) and the individualized generation (1980s – 1990s). In line with the generational perspective, the findings in their study seem to support the notion that formative experiences stick with a generation and news habits formed in this phase remain rather stable. The print generation, as the name suggests, relied heavily on reading tabloids in print. The online generation scored highest of online only news usage. Lastly the individualized generation showed the highest level of heterogeneity in their news use, this was also the only generation that cross-media use superseded single-media use. While it is positive that the study does construct the generational distinctions based on empirical data, an obvious downside is that this construction is based on only one outlet at one point in time. It therefore lacks the longitudinal perspective, and it is not certain to what extent these media generations translate to other outlets.

Investigating the relationship between generation, life cycle factors and the media system, Westlund & Weibull (2013) not only compared the effect of generational belonging on media use, but also how this relationship was affected by changes in the Swedish media environment while controlling for life-cycle effects. Instead of empirically constructing generations based on the data (as was done by Westlund & Färdigh, 2013) They relied on Zukin et al. (2006) influential classification of four generations: the dutifuls (born before 1945), baby boomers (1946-1964), generation X (1965-1975) and the dotnets/millennials (born after 1975). The results from the analysis show that the dutifuls and baby

boomers - the generations socialized in a low-choice media environment - were strongly oriented towards legacy news media. This strong orientation towards legacy media was also intact during the transition from a low – to a high choice media environment. Generation X balanced between older and new media but becoming more digital over time. The millennials, socialized into the high-choice era, showed greater inclination towards digital media. Even so, while generational belonging was found to influence news habits, life-cycle effects (i.e., age) were found to have better predictive power. The authors conclude "changes in generational news accessing (societal level) are contingent upon transitions in media periods (media system level) as well as how people travel through life-cycles (individual level)" (Westlund & Weibull, 2013:167).

The upside of the approach put forward by Westlund & Weibull (2013) is that it allows for a generational analysis while also acknowledging the internal heterogeneity of generations and that these differences are contingent on the media system. This study will therefore incorporate the approach by Westlund & Weibull (2013) by considering both generational as well as age effects in a longitudinal analysis.

3.2.1. Can online news decrease consumption gaps?

While older people seem to consume more legacy news media (Strömbäck et al. 2013), younger individuals are more prone to get their news online (Trilling & Schoenbach, 2013; Andersson, 2019). Apart from the technological changes as well as generational news habits with younger people to a greater degree growing up with digital media (see for example Westlund & Färdigh, 2013), these differences have also been attributed to changing citizenship norms. Online and social media rely less on top-down one-way communication characteristics of legacy and promotes a more networked structured where information flows freely, open for sharing, discussing, and remixing, which have been thought to be more accessible to newer citizenship norms (Bennett, 2008).

Thus, scholars have devoted great attention to studying generational differences in news consumption and whether consuming political news online and on social media makes up for the decrease of more traditional media outlets, especially among those generations which have grown-up and socialized into with these new media platforms. The main question has been whether the online world, providing almost endless opportunities for self-selection, will make the news gaps hypothesized by Prior (2007) stronger?

Some scholars have argued that online media might function as a leveller of generational differences which might narrow the gaps in news consumption and participation (Boulianne, 2011; Holt et al. 2013). For example, in their longitudinal study of news audiences over 19 years in Norway, Karlsen et al. (2020) found that online news outlets had largely compensated for the decline in traditional media. Additionally, when accounting for digital news use, the age gap in people tuning out of news did not increase over the time-period studied. A problem for this study, however, is that the researchers does not control for political interest, which makes it hard to distinguish to what extent online news affects audience fragmentation based on individual level motivations in the high-choice media environment.

Additionally, studies building on Webster's (2014) ideas around power-law distribution by using network analysis tend to report lower levels of generational gaps in news consumption than self-reported measures of media use. In Taneja et al. (2018) study of news consumption behaviours among boomers and millennials in the US, they found that these two generations largely consumed the same set of popular outlets. They trace this to the internet's structural tendencies to favour already popular news

outlets, nudging people towards consuming the same types of news. Using browsing history data, Mangold et al. (2021) also found small generational news gaps in Germany, with large overlapping networks centred around popular outlets. Moreover, both these studies highlight the impact of social media in providing audiences with greater news variance and homogenize news use across groups (Taneja et al. 2018; Mangold et al. 2021). However, Mangold et al. (2021) did note that while there was great audience homogeneity in exposure to news, how long people actually engaged with that news seemed to be a question of preference (Mangold et al. 2021:17). In sum then, this perspective views digital media and social media as a potential leveller, where information flows more freely and there is greater chance of being incidentally exposed to news (Fletcher & Nielsen, 2018).

On the other hand, many researchers have argued that digital and social media reflects little in terms of a real change in the structural inequalities that have long underpinned news consumption behaviours (Thorson et al. 2018) and that these newer forms of media might already enrich the already rich (Kümpel, 2020).

In their study of news repertoires among adolescents in the US, Edgerly and her colleagues (2018) found that more than half (52 percent) of youths in the sample could be characterized as news avoiders, that is opting out of news altogether. This group was characterized by a lack of interest in politics. Conversely, adolescents in the news omnivore repertoire, consuming high amounts of news from several outlets and sources, were substantially more interested in politics. Notably, this was the only group that incorporated mobile news use into their diets. As such the authors note "it appears that mobile technology provides youth already engaged with news with another path to acquire news, rather than inviting new users into the news consumption fold". (Edgerly et al. 2018:203).

Looking at adolescents' political interest, news media use and its impact on political participation in a three way panel study, Kruikemeier & Shehata (2017) results pointed to there being strong selection effects among adolescents on using news media both off- and online but quite small media effects. More politically interested adolescents was found to be significantly more likely to follow the news online, but this exposure did not really affect subsequent levels of political interest. Therefore, the reciprocal relationship between news use and political interest seems to mainly flow from political interest to news consumption and that this relationship works rather similarly both on and offline (Kruikemeier & Shehata, 2017:234).

Other scholars have argued that, while people might be more likely to incidentally stumble upon news on social media (Fletcher & Nielsen, 2018) this might not be enough to counter increasing inequalities in news consumption and political knowledge. Using social media as a source of news might foster a news-finds-me perception (Gil de Zúñiga et al., 2017), meaning that people might perceive that they don't need to actively seek news because they will receive the necessary information to stay informed via their social networks. This perception, however, has been linked to both a decrease in news consumption in other outlets as well as a decrease in political knowledge (Gil de Zúñiga et al., 2017).

Furthermore, Kümpel (2020) argued that there is both unequal chances of being exposed to news on social media and to actually engage with it. The argument goes that social media and incidental exposure of news will mostly benefit the already rich because they are already interested in news and politics and thus have friends that care about these topics and share news content. This in turn creates a news-friendly

information environment on social media which leads to the person engaging with this content. Lastly, this news-friendly environment reinforces system-driven customization of the social media feeds, becoming an attractive target for news organizations (Kümpel, 2020:1091). Indeed, Thorson et al. (2018) found that political interest was strongly predictive of adolescents curating their social media feeds to create a more news-friendly information environment, both by actively through following news organisation pages but also passively through commenting sharing and liking posts related to news events. But perhaps more importantly, the development of these traits was strongly influenced by parents' socioeconomic status. Thus "the development of political interest – that important motivating factor for political uses of digital media – happens more often for children who grow up with parents of higher socioeconomic status" Thorson et al. (2018:193).

Given these differing views and results on the effect of online news consumption on audience fragmentation it is evident that more research is necessary. Can online news consumption function as a leveller due to the power-law distribution of the web as suggested by Webster (2014)? Or does the ever increasing media choices online accelerate preference based selective exposure which Prior (2007) argued? To contribute to this literature and hopefully shine a light on the matter, this study will both look at the longitudinal changes as we have transitioned from a low- to a high choice media environment but also utilizing a dynamic measure by incorporating both on and offline news consumption which will allow for comparisons over time (for operationalizations see chapter 5). Thus, the next set of hypotheses concerns age and generational effects:

H2: The impact of age on news consumption has increased over time

H3: The impact of generational belonging on news consumption has increased over time

3.3 Citizenship norms, and news consumption

A weakness in the research on generations and news consumption can be found in the fact that many scholars has traced differences in news use to generational practices (i.e., news habits). While news habits are certainly important (Westlund & Weibull, 2013; Westlund & Färdigh, 2013; Ghersetti & Westlund, 2018), we should also investigate the role of generational values in shaping these habits. Theoretically - as discussed in the previous chapter - scholars have noted a generational shift in citizenship norms, where older generations are driven more by institutionalized dutiful citizenship norms (DC) while younger generations are increasingly characterized by self-actualizing (AC) citizenship norms driven by personal motivations (Bennett, 2008, see also Dalton, 2008, 2020). This might also relate to news consumption where Thorson (2015) argued that the act of consuming news has moved from being considered something one ought to do into something that is voluntary and needing to be chosen based on interest.

The fact that scholars have suggested that older generations to a greater degree consider news consumption as a civic duty can also have implications for news consumption and audience fragmentation. This is because a civic duty to stay informed have also been conceptualized as an individual level motivation within the OMA-framework (Delli-Carpini & Keeter, 1996; Prior, 2007) and has been linked to higher levels of news consumption. Studying the US context, Poindexter & McCombs (2001) found that a civic duty to keep informed was a strong predictor of both off- and online news. These same results were found by Trilling & Schoenbach (2013) in the Dutch context, although the effect of civic duty was weaker for online news consumption. In their comparative study across 35 countries, Kalogeropoulos & Toff (2020) found that the stronger "cultures of news consumption"

(Kalogeropoulos & Toff, 2020:370), meaning norms about the value of news as a civic duty in a country, the lower amount of people tuning out of news. In Palmer & Toff's (2020) interviews with people who consume very little news in the United Kingdom and Spain, a recurring theme among the respondents was that they lacked a sense of civic duty, pushing against the notion that staying informed was required to be a good citizen.

While a sense of civic duty and political interest have both been conceptualized as individual level motivations according to the OMA-framework (Delli Carpini & Keeter, 1996), they differ in one important aspect. Political interest is what can be referred to as a preference-based motivation while civic duty, on the other hand, is more connected to normative concerns about good citizenship (Poindexter & McCombs, 2001). As such, these two motivational factors could be said to compete with each other. Indeed Prior (2007) acknowledged that a sense of civic duty is a main contender to political interest when it comes to what motivational factors might impact news consumption in the high-choice media environment stating that: "Some people may not like news as much as entertainment, but they still follow it because they consider it their duty as citizens to be informed about the major political issues of the day" (2007:261). This suggests that strong norms about citizens duty to stay informed can counterbalance preference-based content selection.

Empirically, the hypothesized relationship between generational shifts in civic duty norms and news consumption has received less attention. Still, some exceptions can be found in the literature. While not looking at news consumption specifically, Ohme (2019) found that older people in Denmark were more likely to subscribe to a dutiful understanding of citizenship. Additionally, Bergström & Wadbring (2012) found that older generations had stronger support for the notion that citizens were responsible for keeping informed about the ongoings in society. Looking specifically at news consumption, Bouilanne & Shehata (2021) found that political interest was clearly a stronger predictor of online news consumption and online political expression among younger people in the United States, United Kingdom and France. These same results were found in Andersson's (2019) study in Sweden, where she found that the younger a person is, the bigger the impact of political interest on news consumption. Additionally, Andersson (2019) found that the gaps in news consumption between those with low and high political interest was smaller for older people.

What this discussion suggests is that political interest, a preference based motivation, should be a stronger predictor for news consumption among younger generations. Adolescents growing up in a high-choice media environment might develop weaker news habits due to the ease of tuning out (Edgerly, 2017; Edgerly et al., 2018). Additionally, if self-actualizing norms of citizenship are dominant among younger generations, the choice to engage with news should be guided more by personal interest (Thorson, 2015). Concurrently, political interest should be a less decisive factor for older generations who are motivated to a greater extent by a sense of civic duty as well as socialized media habits formed in the low-choice media environment (Bennett, 2008).

The previous studies that investigated the conditional effect of age and political interest on news consumption (Andersson, 2019; Boulianne & Shehata, 2021) do have a weakness in that they are both cross-sectional studies, meaning that they only measure the relationship at one point in time. Additionally, none of the studies actually measure generations specifically, relying instead on either a continuous age variable (Boulianne & Shehata, 2021) or age groups (Andersson, 2019) at one point in time. If we are witnessing changing citizenship norms with regards to news consumption, we should not

only expect that the impact of political interest is greater among younger people (Andersson, 2019; Boulianne & Shehata, 2021) but also that this difference has grown over time. This leads us to the next set of hypotheses:

H4: The impact of political interest on news consumption has increased more among younger people than among older people.

H5: The impact of political interest on news consumption has increased more among younger generations than among older generations.

3.4 Media type differences

This thesis will also investigate the changing impact of political interest, age, and generational belonging for different types of news media. This is important because different media provide different opportunities for incidental exposure and as Fraile & Iyengar (2014:275) argued: "not all news sources are equally informative" (see also van Aelst et al. 2017 for review). To investigate whether we are moving towards a more fragmented news audience we should therefore not only focus on the total amount of news that audiences consume but also what kind of news they consume. Below I will outline some important media type differences.

Research does indicate that television, both commercial and public service, usually works as a leveler of news consumption and knowledge gaps (Prior, 2007; Shehata, 2015, van Aelst et al. 2017) Still, a distinction can be made between commercially oriented and public service broadcasters. Public service broadcasters do not only provide more news and current affairs programming than commercial channels, but also schedule them during prime-time slots (Aalberg et al. 2010). Furthermore, the reporting in public service news is more issue oriented with a focus on hard news (Strömbäck & Nord, 2017) These characteristics of public service news have also been linked to higher political knowledge gains in a comparative study of 27 countries (Fraile & Iyengar, 2014). Even in Sweden, where the largest commercial channel (TV4) provides comparatively high levels of news, public service television seems to provide greater knowledge gains (Strömbäck, 2017).

A similar distinction can be made regarding newspapers. Broadly speaking, newspapers can be categorized into two established categories, morning newspapers and tabloids. The reporting of morning newspapers is more issue oriented and focus on hard news (Fraile & Iyengar, 2014; Strömbäck & Nord, 2017). Frequent reading of morning newspapers has also been linked to higher political knowledge gains compared to tabloids (Fraile & Iyengar, 2014; Shehata & Strömbäck, 2011). Additionally, due to their traditionally large diffusion among the public – at least in newspaper-centric countries like Sweden - differences in morning newspaper consumption based on socioeconomic status and political interest have been rather small. On the other hand, scholars have noted that the effect of political interest and socioeconomic status on reading morning newspapers have increased over time (Strömbäck et al. 2013; Bergström et al. 2019; Ohlsson et al. 2017).

Tabloids occupy a somewhat interesting part of many media landscapes. They are usually less trusted by the news audiences but still gather significant readership numbers (Kaufman et al. 1999; Johansson, 2007; Oscarsson et al., 2016). One of the reasons for this is that people use tabloids for different sorts of gratifications than "quality" news, for example entertainment (Johansson, 2007). Tabloids have historically been characterized by a more sensationalistic writing, with a greater focus on sports and

entertainment (Weibull & Wadbring, 2014) as well as human-interest frames (Lecheler & de Vreese, 2019). Many scholars have argued that this focus on soft news in tabloids contributes little to political knowledge gains (Fraile & Iyengar, 2014; van Aelst et al. 2017). In Sweden tabloids are one of the most popular form of news media online (Martinsson & Andersson, 2021). Additionally, research has only found small, or no audience gaps based on socioeconomic status or political interest for tabloid readership (Strömbäck et al. 2013; Ohlsson et al., 2017; Bergström et al. 2016). This might be due to the sheer popularity of these outlets as well as traditions of a strong web presence, which contributes to a power-law distribution (Webster, 2014). In other words, large amounts of people might use tabloids online simply due to their popularity.

Considering online media is tricky and different theoretical perspectives provide different predictions. On the one hand, following the OMA-framework, the almost unlimited choices available to online users should dramatically increase the importance of individual level motivations, facilitating greater audience fragmentation and news consumption gaps (Prior, 2007). On the other hand, Webster (2014) and the networked perspective, online media should provide great opportunity for incidental exposure to news where audiences and media information regimes together contribute to a massively overlapping culture. As discussed earlier, there still seems to be lacking consensus on whether online media increase or decrease news consumption gaps. Some scholars have noted that political interest is more important for tv news exposure and less so for online news (Bouilanne, 2011) others have found the opposite results (Kruikemeier & Shehata, 2017). Additionally, while social media does seem to offer opportunities for people to be incidentally exposed to news on social media (Bergström & Belfrage, 2018) it does seem that this contributes little to increases in political knowledge (Gil de Zuniga et al., 2017; Shehata & Strömbäck, 2021). An important distinction to make regarding online news use might be to differentiate between the nature of uses. While many people incorporate social media into their news repertoire, some people might use it as a complement to other news outlets (Shehata & Strömbäck, 2021) while others solely rely on social media as a tool for news to find them (Gil de Zuniga et al., 2017). We might therefore expect lower audience fragmentation with regards to news consumption in social media compared to other online news outlets.

As described above, the impact of individual level motivations might look different depending on media type. On the other hand, the rationale behind the OMA-framework argues that increasing media choice necessarily translates to a growing impact of individual level motivation. Since all types of media are part of the same media environment and have experienced the same developments, the changing impact of individual level motivations should affect all media similarly:

H6: The impact of political interest on news consumption has increased over time for all types of news media

As for the changing impact of age and generation, while scholars have noted generational effects in news consumption (Westlund & Weibull, 2011; Ghersetti & Westlund, 2018) the research provides less guidance how these factors have evolved over time. Thus, instead of postulating a specific hypothesis we ask the question:

RQ1: How does the interaction between age and time as well as generation and time impact the consumption of different types of news media?

4. Elaboration model

Having reviewed the previous literature, this chapter briefly summarize the earlier findings and compiles the hypotheses. At the end of the chapter the hypothesized elaboration model is presented.

First, while there seems to be a consensus among scholars that political interest is an important predictor of news consumption, there is still some disagreement whether the impact of this factor has grown over time (Strömbäck et al. 2013; Aalberg et al. 2013). This is perhaps most evident when considering online news consumption. Following the OMA-framework, we should expect that this high-choice media environment should promote greater news consumption gaps due to preference-based selection (Prior, 2007). On the other hand, the infrastructural perspective does suggest that there should be a massively overlapping culture online where the opportunities for incidental exposure to news is greater, lowering the gap (Webster, 2014). One of the most extensive studies in this area is Strömbäck and colleagues (2013) article which traced developments between 1986 - 2010 and found that the impact of political interest was increasing. But much have happened since then, perhaps most noticeable is the increasing pivot online by both outlets and audiences. Based on this discussion, the first hypothesis aims to set a baseline and investigates the relation between political interest and news consumption over time and whether the pattern described by Strömbäck et al. (2013) extends to 2019:

H1: The impact of political interest on news consumption has increased over time.

Second, previous studies have shown that age is one of the most important demographic factors in predicting news consumption (Ksiazek et al, 2010; Aalberg et al., 2012; Strömbäck et al., 2013; Toff & Kalogeropoulos, 2020). At the same time, generational effects also seem to play a part either through news habits formed in a specific context being stable or changing citizenship norms (Aroldi & Columbo, 2007; Thorson, 2015; Westlund & Weibull, 2013; Westlund & Färdigh, 2013; Ghersetti & Westlund, 2018). However, there is less research that directly investigates whether we are dealing with age or generational effects, or perhaps both. Furthermore, little have been done to investigate whether generational and age differences have increased over time. This is especially relevant due to the growing importance of online news consumption, which have yielded mixed results (see for example Webster, 2014; Kruikemeier & Shehata, 2017). This study will therefore contribute to the literature by investigating both the changing impact of age and generations over time. Thus:

H2: The impact of age on news consumption has increased over time

H3: The impact of generational belonging on news consumption has increased over time

Third, the literature on citizenship norms suggests that viewing news consumption as a civic duty and an important part of being a good citizen, is weakening (Thorson, 2015). Furthermore, these newer citizenship norms seem to be more prominent among younger people (Dalton, 2008,2020; Bennett, 2008). Since a civic duty to stay informed has been shown to have a strong effect on news consumption (Trilling & Schoenbach, 2013; Toff & Kalogeropoulos, 2020) we can expect that if these norms are weakening, and news consumption is seen more as personal choice guided by personal interest (Thorson, 2015) the impact of political interest will differ among generations. Here it is also important to

distinguish between life-course and generational effects. If we are only dealing with life-course effects, the interaction between political interest and age / generation should look the same across time. On the other hand, if younger generations are increasingly guided by self-actualizing citizenship norms, the impact of political interest should have increased more for this group. Based on this discussion I posit the following hypotheses:

H4: The impact of political interest on news consumption has increased more among younger people than among older people.

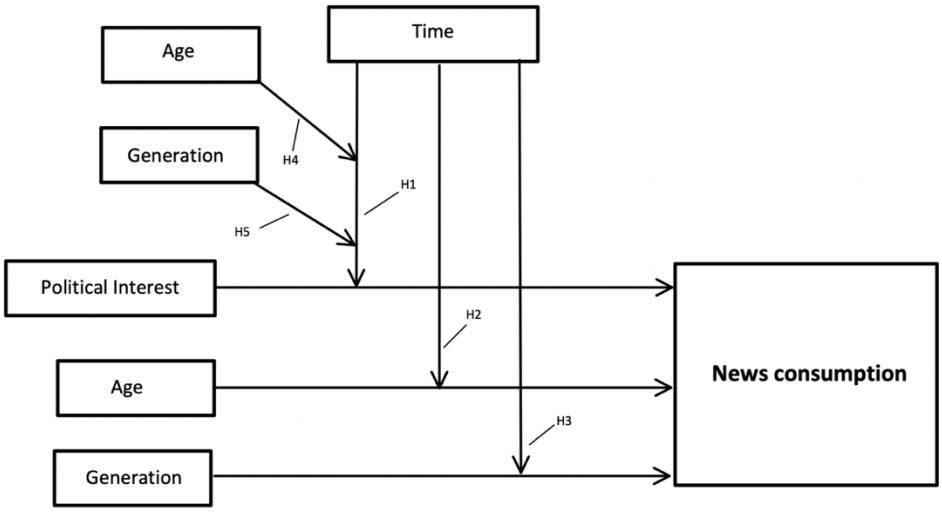
H5: The impact of political interest on news consumption has increased more among younger generations than among older generations.

Fourth, research has shown that different forms of news media provide different opportunities for political learning (Fraile & Iyengar, 2014; Shehata & Strömbäck, 2011; Strömbäck, 2017). If we are interested in studying audience fragmentation, we should not only be looking at overall levels of news exposure but also what kinds of news people are exposed to. Following earlier studies (Strömbäck et al. 2013) and the theoretical basis of the OMA-framework we should expect that the impact of political interest should increase for all types of news media. As for generational and age differences, the conditional effect of age and time as well as generation and time remains a somewhat open question due to lack of outlet specific research. These discussions resulted in the following hypothesis and research question.

H6: The impact of political interest on news consumption has increased over time for all types of news media

RQ1: How does the interaction between age and time as well as generation and time impact the consumption of different types of news media?

Figure 1. Elaboration model



5. Methodology and data

With the hypothesis and research questions in place, this chapter describes how we will go about answering these. First, a contextualization of this study is done by discussing the Swedish media system and news audience. After this, the dataset, operationalizations and measurements are detailed and discussed. The chapter ends with a presentation of the regression technique that will be used for this study.

An important point to highlight is that this study is both inspired by and borrows some of its methodology and operationalizations from a previous article by Strömbäck et al. (2013). This entails the construction of an additive index of news consumption as well as the use of same dataset. Still, this thesis differs in some respects, the news consumption index is somewhat differently coded (more on this in the section below) and my study investigates a longer time period. The similarities between this study and Strömbäck and colleagues (2013) allows me to revisit their findings and test the robustness of these. It also allows for comparisons between them. Furthermore, this study goes beyond Strömbäck et al. (2013) by not only looking at the changing impact of political interest, but also whether this change looks different for different segments of the population.

5.1 The Swedish context

5.1.1 The Swedish media system

The empirical part of this study will focus on Sweden. There are a few reasons for this. First, Sweden's media system has been described as a typical example of what Hallin & Mancini (2004) called democratic corporatist system in their classical typology. The Swedish media system is characterized by traditionally high levels of newspaper readership, a well-financed and popular public service tv and radio, a high degree of formal organization and independence of journalists as well as a focus on consensus politics (Hallin & Mancini, 2004:75-75). In Shehata & Strömbäck (2011) comparative study, they found that in newspaper-centric countries – such as Sweden - there were both greater attention to political news but also smaller gaps in newspaper reading between those with high and low levels of education and political interest. The presence of a strong public service television has also been found to provide greater learning opportunities and quality of news (Fraile & Iyengar, 2014; Strömbäck, 2017) not only by the sheer amount of news but also in their scheduling practices, maximizing the potential of citizens being exposed to news (Esser et al. 2012). Additionally, the Swedish national context has been described to fit into what Kalogeropoulos & Toff described as "cultures of news consumption", with stronger norms around news as civic duty due to high levels of press freedom and political stability, which has been suggested to contribute to higher levels of overall news consumption (Kalogeropoulos & Toff, 2020:367). Focusing on the Swedish case is therefore beneficial since it will provide a tougher test for my hypotheses.

Second, for the past decades the media environment in Sweden has experienced tremendous changes similar to those described in other western post-industrial democracies (see for example Prior, 2007). In the mid 1980s, Sweden still had a monopoly on tv and radio broadcasting. Commercial TV entered Swedish households at the end of the 80s and commercial radio was introduced in the beginning of the 90s. In the mid 90s the internet became widely available (Weibull & Wadbring, 2014) and today Sweden has one of the highest internet penetrations in the world (Newman et al. 2021). In other words, the Swedish media environment has truly developed from a relatively low-choice environment into a high-choice media environment. And while traditional media still has retained its ability to structure public

debate (Djerf-Pierre & Shehata, 2017), audience fragmentation along motivational lines – as hypothesized by prior (2007) - has been reported during this transition (Strömbäck et al., 2013).

A third reason for the choice of Sweden is that we have unique time-series data on audiences and news media use available through the SOM-institute cumulative dataset. The dataset contains yearly repeated cross-sectional surveys between the years 1986-2019. This data is especially useful for this study since it allows us to track changes in news consumption as Sweden has transitioned from a low- to a high-choice media environment.

Summing up, Sweden provides a beneficial context for this study. The Swedish media system contains many of those factors that have been thought to provide a rich political information environment and reduce avoidance of news (Hallin & Mancini, 2004; Esser et al. 2012; Toff & Kalogeropoulos, 2020) but it has experienced great changes in recent decades dramatically increasing the opportunities for media content selection and lastly, we have the data to study these changes.

5.1.2 The Swedish news audience

It is also worth examining the characteristics of the Swedish news audience which have been described as "Far from average" (Wadbring, 2019:146). For example, the trust in news media among Swedish news audiences has been traditionally high and remains rather stable despite increasing digitalization and proliferation of media (Andersson, 2020). The public service television and radio especially enjoys high trust among the public, with about 72-74 percent claiming that they have rather high or very high trust in these institutions. Regarding news consumption, on an aggregate level the mean news use of Swedes is relatively high and has proven remarkably stable (Strömbäck et al. 2013). Additionally, the amount of people tuning out from news is also comparatively low (Wadbring, 2016; Newman et al. 2019). Despite this, there seems to be a general decline in news consumption among Swedish audiences (Wadbring, 2019). The most dramatic changes in news consumption have been seen in the historically high newspaper readership which experienced rapid decline in the past decades. And while digital subscriptions are increasing for these outlets, they have not yet been able to make up for the decline (Wadbring, 2019).

Even though Swedish audiences generally do consume rather high levels of news, audience fragmentation has been found in previous studies. The most important being, preference-based, socioeconomic, and generational news consumption gaps. Each of these will be further elaborated on below.

Starting with preference-based gaps, the political selective exposure that has been reported in studies in the United States (Stroud, 2010) seem to be a much smaller problem among the Swedish news audiences. Rather, the greatest preference based fragmentation of audiences seem to be along motivational lines. Using panel study data measuring consumption of televised party-leader interviews, Skovsgaard et al. (2016) concluded that selective exposure based on political interest was substantially more important than selective exposure based on ideological leanings. Additionally, in a longitudinal study of over thirty years of public service news use Dahlgren (2019) found that there were almost no differences among the ideological left and right in public service news use over time but that there was a clear and increasing gap in between those with high and low political interest. This increasing gap between the politically interested and uninterested have also been found among other outlets (Strömbäck et al. 2013). The

results from these studies can be partially attributed to the Swedish media system where "the opportunity structures provide plenty of scope for selectivity based on political interest but a narrow scope for selectivity based on ideological preferences" (Skovsgaard et al. 2016:528).

Socioeconomic, or class, differences in news consumption have also been noted in the literature on Swedish audiences. Building on sociological accounts of symbolic and cultural capital, Lindell & Hovden (2016) identified that media preferences was tightly connected to peoples' social position. People with higher capital preferred public service radio news as well as quality newspapers while expressing mistrust of tabloids, commercial outlets, and entertainment channels. The reverse relationship was found among groups with weaker capital. Regarding news online, people with higher cultural and symbolic capital are more likely to consume quality newspapers than those with low levels of capital (Ohlsen et al. 2016). In a longitudinal survey, measuring offline news consumption, Bergström et al (2019) also found that the impact of socioeconomic status on reading a quality newspaper in print had become more important over time. However, the impact of socioeconomic status on watching television or reading tabloids seem to have decreased over time.

Lastly, generational factors have been widely noted to be the strongest individual factor among news audiences in Sweden. Weibull & Wadbring (2014) have stated that "if only one factor could be chosen to illustrate the changes [in news habits among audiences] it is age – or rather generation – that has to be used. Increasing age differences appears on all levels in the media system" (2014: 354 – 355). Thus, Weibull & Wadbring (2014) argue that the stability in overall news consumption that has been reported in studies (see for example Strömbäck et al. 2013) is largely due to older generations which formed their news habits in a low-choice media environment still make up a large proportion of news audiences. Older generations are much more likely to use legacy media and much less likely to use social and online media, while the relationship is the inverse for younger generations growing up in a high-choice media environment (Ghersetti & Westlund, 2018; Andersson, 2019). The impact of age on individual news repertoires also seems to have become more important over time, especially for printed newspapers (Wadbring & Bergström, 2017; Andersson, 2018).

5.2 Data

This study utilizes data from the SOM-institute cumulative dataset. This is a pooled dataset of repeated yearly cross-sectional surveys collected via postal- and web surveys in Sweden between the years 1986-2019. The data spans 33 years and allows me to track developments in news consumption as we have transitioned from a low- to a high-choice era. The surveys are conducted in the fall of each year using systematic probability sampling and is nationally representative. The response rate for the SOM-surveys have been traditionally rather high, hovering around 70 percent in the 80s and 90s but there has been a slow decline in response rates since the 2000s. Compared to other studies though, the response rate remains high of around 50 percent (SOM-Institute, 2022). Even so, the declining response rates is not evenly distributed among the sample. People with low political interest, younger people, people born outside Europe and people with low trust in institutions and research have proven to be hard to reach. Among people with higher response rates, we find older people with stable life situations, women and highly educated. For these reasons, the data does not contain a perfect representation of the population. On the other hand, these problems are present in all survey research and despite declining response rates, the accuracy of measurements in the SOM-survey in general have remained high (Falk et al. 2021).

The dataset allows me to track overall trends in news consumption habits among the Swedish populace and the study is thus longitudinal in its design. Nevertheless, it is important to remember that it is not panel data and, as such, does not track the same individuals over time. While I would have preferred using panel data since it is better in establishing causality across time and individuals (Mehmetoglu & Jakobsen, 2017: ch. 10) there exists, to my knowledge, no such dataset that tracks changes over such a long period. Though the problem is limited since my aim is not to track individual changes in news consumption but rather track overall societal trends. For this, I believe the repeated cross-sectional data is sufficient.

Another problem that arises from the use of survey data, is the well-known issue of respondents overreporting their news consumption (Prior, 2009). This could potentially impact the findings from this study since overestimation seem to be more prevalent among people with lower cognitive abilities (Prior, 2009). Additionally, since Sweden does seem to have stronger norms about news consumption (Toff & Kalogeropoulos, 2020), respondents might feel more pressured to overstate their actual news consumption. This is a tricky problem to get around and for this study we will simply have to accept that the news consumption measures are probably somewhat inflated.

5.3 Measurements

In this section, the variables that will be used for the data analysis will be presented and discussed. For summary statistics for all the variables, see appendix 1.

Before getting into the details of the operationalizations, a general note on the measurements should be made. The news consumption measurements in the SOM data are measured on an ordinal scale, usually on the scale between 0-5 (0= Never, 1= more seldom, 2= 1-2 days/week, 3= 3-4 days/week, 4= 5/6 days/week, 5= daily). This thesis does, however, treat the variables as interval scales. This is not ideal since it risks violating important assumptions about linear regression and generate unprecise coefficients (Mehmetoglu & Jakobsen, 2017). While this is somewhat problematic, the problem should not be overstated. While the measurements are on an ordinal scale, the distance between the measurements are roughly equal. Additionally, measures have been taken to adequately transform the variables. For example, the individual media types are added together to create an index that will act as the main dependent variable which utilizes standardized values.

5.3.1 Dependent variables

The dependent variables used in this study are a range of question relating to exposure to different kinds of news media. The selection of news media was guided both by the theoretical discussion (see chapter 3.4), additionally the measures needed to have been available for a majority of the time period in order to track developments over time. Since the data spans 33 years, the measurements need to be able to mirror the changes that has taken place in the media environment while at the same time being able to incorporate these changes into the existing time series. To achieve these two criteria, I have opted for a media type specific but platform neutral approach. This means that when a digital option became available, it was incorporated into the news consumption measures of that media type. Thus, I make no distinction on what format people accessed a specific news media but rather how often they did. For example, an individual reading a morning newspaper in print 1-2 days a week (a score 2) and on the web daily (a score of 5) would thus score a 5 on morning newspaper consumption variable. The news media variables are the following:

Morning newspapers

Respondents were asked how often they read at least one or more morning newspapers in a typical week either in print or online, with the highest value of these determining the respondents score on the morning newspaper consumption variable. The scale used to measure morning newspaper consumption have varied across times so in order to ensure comparability across time, I relied on a constructed variable available in the dataset. The responses were coded as follow: 0=never, 1=more seldom, 2= 1-2 days/week, 3=3-4 days/week, 4=5-6 days/week, and 5=daily. Separate variables for consumption of morning newspapers in print and online were also created for the descriptive statistics section

TV news

Respondents were asked how often they consumed the main news programs on public service television (Rapport and/or Aktuellt) or commercial TV (TV4 Nyheterna) or took part of news from the public service television website, with the highest value of these determining the respondents score on the TV news variable. The responses were coded the same as morning newspapers. Separate variables were also constructed for broadcast only public service television news and commercial tv news for the descriptive statistics section.

Radio news

People were asked how often they listened to the national public service radio news (Ekot) or took part of news from their website, with the highest value of these determining the respondents score on the Radio news variable. The responses were coded the same as described above,

Tabloids

Respondents answered how often they read the tabloids Aftonbladet, Expressen, GT and/or Kvällsposten in print or online, with the highest value of these determining the respondents score on the tabloids variable. The scale used to measure tabloid readership was changed in 2014 and the responses were coded as follows: 1986-2013: 0=Never, 1=More seldom, 2=1-2 days/week, 3= 3-5 days/week, 4=6-7 days /week. 2014 – now: 0 = Never, 1 = More seldom, 2 = 1-2 days/week, 3 = 3-4 days/week, 4 = 5-6 days/week, 5 = daily.

To ensure comparability across time and fit them to the same measurement scale, I standardized the values. The tabloid variable therefore ranges from 0 (never) to 1 (daily or 6-7 days/week) with multiple values in between.

Legacy news consumption index

The main dependent variable that will be used in this thesis is an additive index of legacy news consumption. To allow for analysis over the whole time period, the index includes morning newspapers, TV news, Radio news and tabloids since these are the only measures that have been included in all survey years. To ensure comparability of measurements and that all measures were on an interval scale, the values were standardized. This means that each individual media type measurement range between 0 (Never) to 1 (daily or 6-7 days/week) with multiple values in between

The index was created by summing up the individual scores for each media type detailed above (TV news broadcast/online + Radio news broadcast/online + morning paper print/online + tabloids print/online). Thus, the legacy news consumption index range between 0 (No news consumption) to 4 (all media types daily). A histogram detailing the distribution of the legacy news consumption index can be found in appendix 2. The histogram of the legacy news consumption index shows a normal distribution, although skewing somewhat to the higher values of the news index.

In addition to the above dependent variables, two additional news media variables were added to the study.

News in social media

People were asked how often they consumed news on social media in a typical week. The responses were coded as follows: 0 = never, 1= more seldom, 2 = 1-2 days/week, 3 = 3-4 days/week, 4 = 5-6 days/week, 5 = daily. The question about news consumption in social media was added to the SOM-surveys in 2014.

Online news consumption index

An additional index was created using only online consumption of the legacy news medias. It consists of consumption of morning newspapers online, tabloids online, public service television online (SVT nyheter) and public service radio online (Sveriges Radio website). Like the legacy news consumption index, all values were standardized ranging from 0 (never) to 1 (daily or 6-7 days/week) with multiple values in between. The online news consumption index therefore ranges from 0 to 4. The index spans between 2014 – 2019 since this is the only period where all legacy media types had an online option included in the surveys.

5.3.2 Independent variables

Individual level motivation - Political interest

Political interest was measured using the question: "In general, how interested are you in politics?" with responses ranging as follows: 0 = not at all interested, 1 = hardly interested, 2 = quite interested, 3 = very interested.

Political interest is usually utilized as an ordinal variable (see for example Strömbäck et al. 2013). For the empirical part of this study, however, political interest variable will be used as an interval variable. This can perhaps be criticized since it is hard to say that there is equal spacing between the different levels of political interest. As a result, important information might be lost when treating this variable as an interval variable. Still, treating political interest as an interval variable is not unheard of and have been utilized before (see for example Boulianne & Shehata, 2021; Shehata et al. 2015). Another reasoning for treating political interest as an interval variable is theoretical and methodological. To reiterate, this thesis aims to explore whether the effect of political interest on news consumption differs depending on age and / or generation. To do this, marginal effects must be calculated, which can only be done when treating political interest as an interval variable. As such, this is an example when theory guides data analysis (Aneshensel, 2015).

Age and generation

This study will follow Westlund & Weibull's (2013) argument that to understand changes in generational patterns in news consumption we must look at how these are contingent on both media system levels as well as life-course effects (2013:167). This means that it is important to incorporate all of these perspectives in order to understand the developments taking place among news audiences.

As previously mentioned, there is no universal agreed consensus on how to operationalize generations. This is not a bad thing, since socially constructed generations is both time and location specific. Some studies utilize previous classifications (such as the classification by Zukin et al. 2006), others craft conceptually distinct generations from empirical data (Westlund & Färdigh, 2013). For this thesis I will

rely on Zukin and colleagues (2006) classification consisting of four conceptually distinct generations: The dutifuls (born 1945 or earlier), baby boomers (born 1946-1964), Generation X (born 1965-1975) and Millennials (born 1976 or later). While the usage of this generational classification can be criticized, for example the fact that it was developed in the US and might therefore not translate perfectly to the Swedish context, there are also upsides to using it. First, several scholars in Sweden have used this classification and found generational patterns along these distinctions (Westlund & Weibull, 2013; Ghersetti & Westlund, 2015, 2018). Second, the usage of a well-established classification of generations allows for comparisons and transparency.

In addition to using an already existing conceptualization of generations, and therefore risk missing out on valuable information, a continuous age variable was used to incorporate the developments for all ages. Also, a continuous age variable was needed to measure and test life-course effects. Important to note is that the age sample frame used in the SOM-surveys has differed across the years. The choice was therefore made to only include the age range that has been included in all the surveys. This means that the age variable only includes respondents between 16-75.

Time

To reiterate, this analysis builds on a pooled dataset of repeated yearly cross-sectional surveys. To allow for analysis of news consumption habits as we have transitioned from a low- to a high-choice media environment, a time variable was constructed from the year each individual survey was conducted. The time variable ranges from 0 (the year 1986) to 33 (the latest survey conducted in 2019).

Gender

The models will also control for gender differences. This is because gender has been shown to have an impact on news consumption with women, on average, consuming less news than men (see for example Palmer & Toff, 2019; Karlsen et al. 2020). Gender was coded into a dummy variable with women being the reference category.

Education

In my model I will control for respondent's education, I do this for two reasons. The first one is that individual levels of education have been extensively used as control in previous research (Trilling & Schoenbach, 2013; Strömbäck et al. 2013) due to the presumed effect it has on individual's ability to comprehend news and spur a civic interest (Delli Carpini & Keeter, 1996). Second, it is important to include education to distinguish between life-course and generational effect. This is because younger people tend to have lower education due to the simple fact that they haven't yet finished their studies (Quintelier, 2007). At the same time younger generations, on the aggregate, are more educated than previous ones since the possibilities to seek higher education are greater (Dalton, 2020). Controlling for education in the models will therefore rule out potential redundancy and spuriousness in my models (Aneshensel, 2015).

The level of education was measured using a constructed variable consisting of three categories: 1 = low (primary education) 2 = medium (more than primary education but not college or university) and 3 = high (college or university education).

5.4. Data analysis

This study will utilize a quantitative research approach based on a yearly representative survey among the Swedish public. This method is suitable for this study's purpose since statistical analysis allows me to make inferences about a population that goes beyond the collected data (Mehmetoglu & Jakobsen, 2017:2-12). The data was analyzed using the STATA statistical software.

The use of a cumulative dataset of repeated cross-sectional data does pose a statistical problem. Since we are dealing with individuals grouped within year, the data is clustered. Using standard ordinal least squares regression on clustered data runs the risk of underestimating standard errors and overestimating t-statistics (Mehmetoglu & Jakobsen, 2017:199). Because of this, the choice was made to utilize linear multilevel regression – also called mixed-effect regression - which accounts for contextual factors and provides less biased standard errors. More specifically, the time variable was clustered as a varying intercept (random effect), while all other covariates, including time, was kept with fixed effects. In other words, by using multilevel modelling, we are telling the statistical software that the data is broken up in specific years and to take account of this fact in the estimations of slope coefficients. This regression technique gives us the best unbiased estimates of the variable effect across the whole sample (see Dahlgren, 2019 for previous example of using multilevel modelling on the same data).

A brief note on average marginal effects

Throughout this study, the term average marginal effect will be frequently recurring. To briefly explain, average marginal effects is the average effect on a dependent variable when the independent variable changes by one point. For example, let us say that the average marginal effect of political interest on news consumption is two. This means that for every one point increase in political interest among respondents, news consumption goes up by two.

The average marginal effect of a variable is calculated in the following way: the statistical software goes through each observation one by one and calculates how big the effect of a one point increase in the main independent variable has, on average, on the dependent variable. The individual marginal effects of each observation are then added together and compared to the others. The average marginal effect then, is the average effect across the whole sample.

6. Results

In this chapter, the results from the empirical analyses are presented. First, an overview is presented to illustrate how the news consumption has evolved for the different media types. After this, descriptive statistics between the main dependent – legacy news consumption index – and the independent – political interest, age, and generation – are visualised to allow the reader to inspect the relationships between these variables over time. Lastly, multiple regression analyses were run to provide answers to the hypotheses and research questions.

6.1. Overview

6.1.1 Overall news consumption

Before turning to my hypotheses and research questions. It might be worthwhile to outline and describe the changes in news use that have taken place between the years 1986-2019. As previously mentioned, during these years the Swedish media environment have experienced dramatic changes (Weibull & Wadbring, 2014). These changes are also reflected in the mean news consumption among Swedish news audiences which can be seen in Figure 2.

As evident by the time trend, the most dramatic change over time can be found when looking at newspaper readership. It has gone from being the most used media type in 1986 to display a continuous declining trend. For newspaper reading in print, the development is perhaps best described as taking a nosedive, with the latest survey reporting a mean value of around .4, which translates to 1-2 days/week. When newspaper consumption on the web was added to the surveys in 2007, we can see that the usage of these dampened the decline in newspaper consumption. Although even when accounting for online consumption of newspapers, there appears to be a declining trend from around 2010 and onwards.

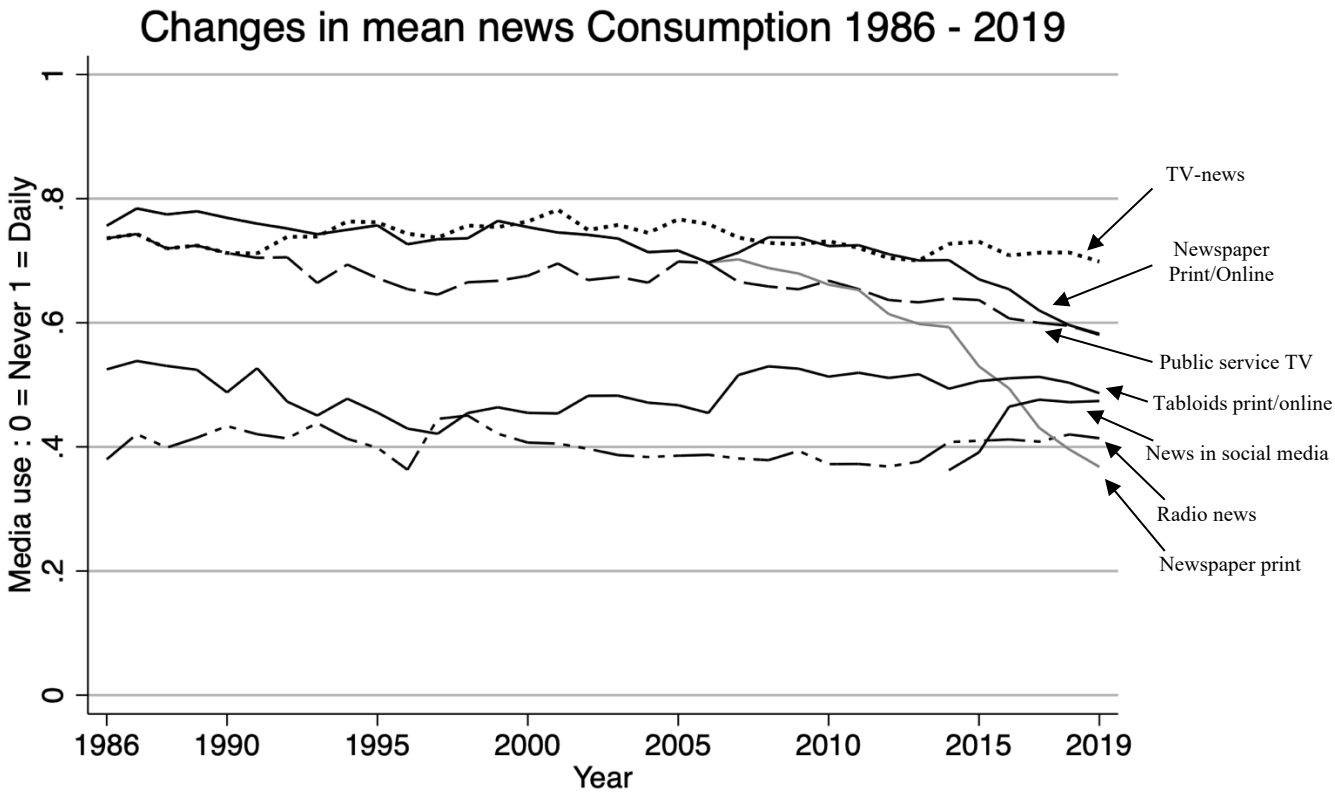
Regarding television news, we can see that there was a declining trend in television news viewership in the beginning of the time series. With the introduction of the commercial channel TV4 in the early 90s we can see that TV news consumption increased and became the most utilized news media among Swedish audiences. In this case then, the addition of a commercial channel increased news viewership. News viewership have also been quite stable over the period although declining in recent years. In 2019 both public service television news and newspaper consumption (print/online) had a mean consumption of around .6, which translates to 3-4 days/week.

Tabloids display an interesting development. From having declining readership from the start of the time series up until the latter half of the 1990s, the early web adaptation of tabloids seems to have increased readership. The first survey questions asking about online tabloid consumption was included in 1998 and stopped the negative trend and around 2008 the consumption of tabloids has been rather stable. By 2019 the levels of readership do seem to be on roughly the same level as when measurement began three decades earlier. Indicating that tabloids seem to be the only media type to truly make up for a loss of paper readership by online consumption.

Radio news has shown little variation over time. Out of the media types measured, it has consistently been the least utilized news medium among the audiences. Except for some fluctuations in the nineteen

nineties – probably due to the introduction of commercial radio (see Weibull & Wadbring, 2014) - the mean radio listening has been quite stable. In recent years however, the consumption of radio news has gone up somewhat. This is probably due to the addition of questions regarding online consumption of radio news in the surveys from 2014 and onwards.

Figure 2. *Over time changes in mean news consumption by media type, 1986-2019*



Note: All measurements standardized (0: Never – 1: Daily). TV-news (watching commercial news: Tv4 Nyheterna or public service news: Aktuellt/Rapport or svt nyheter online) Public service TV (watching Aktuellt or Rapport). Newspaper print/online (reading at least one morning newspaper print or online). Tabloids (reading Aftonbladet, Expressen, GT or Kvällsposten print or online). Radio news (listening to Ekot or consuming news from Swedish radio website). News in social media (consuming news on social media).

Lastly, social media was introduced to the survey questionnaire in 2014 and we can see a rapid increase in the mean news consumption on social media platforms in the first couple of years. In recent years, the mean consumption of news in social media have flattened out, positioning itself on roughly the same levels as tabloid consumption. As of 2019, on an aggregate level, getting your news from social media is more common than reading a newspaper on print or form the national radio news.

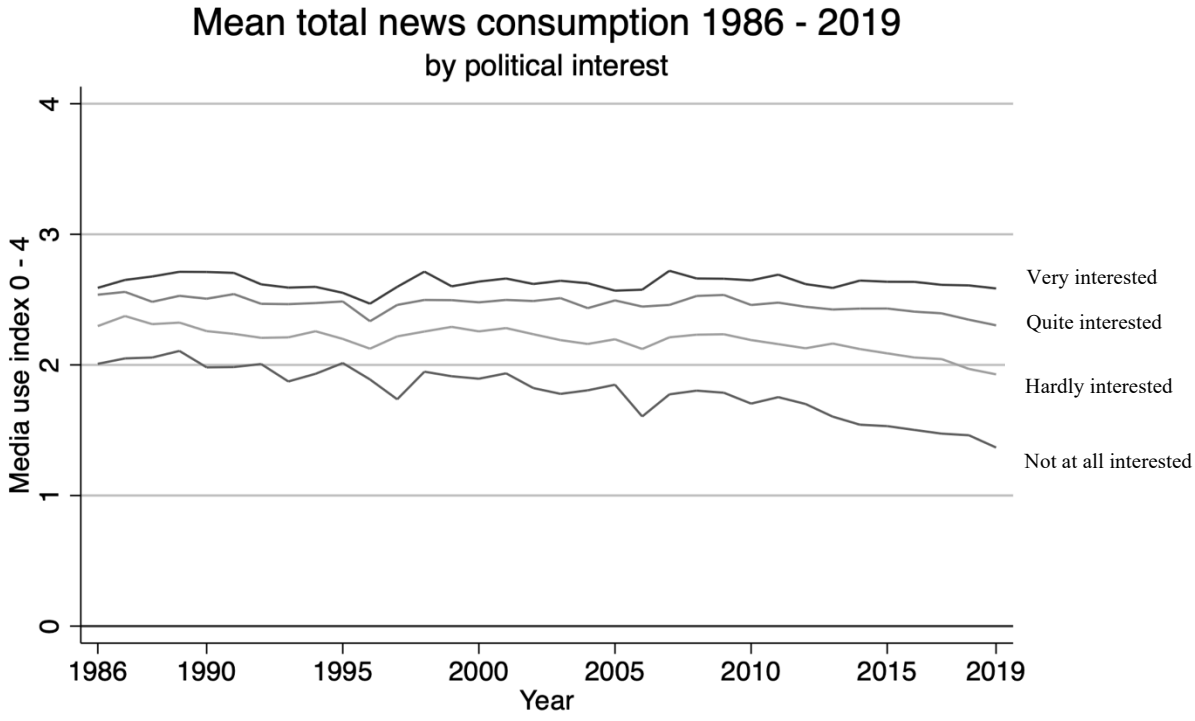
Overall, the trends present in figure 2 is very similar to those found by Strömbäck et al. (2013) in their study. Given that this thesis shares the same data and many of its operationalizations, these results speak to the robustness of these trends among the Swedish news audience. What is perhaps even more

important is that this study pick up from where Strömbäck et al. (2013) left off. While Strömbäck and colleagues (2013) only looked at the developments up until 2010, this thesis can show that the trends identified in their article have continued. Most notably, the declining trend of newspaper readership in print does not only continue past 2010, but it also seems to have accelerated after this point in time.

6.1.2 Overall news consumption and political interest

Let us now turn our attention away from measures of news consumption across the whole population and instead focus on the interplay between political interest and news consumption. For the coming sections we will also focus on total news consumption using the previously crafted index instead of individual news sources. As is evident in figure 3, higher levels of political interest are related to higher levels of news consumption on an aggregate level. This is consistent with the OMA framework which posits that individual motivational factors are important predictors of news consumption (Luskin, 1990; Delli-Carpini & Keeter, 1996). The graphs in figure 3 also highlights the changes between these different levels of political interest as we have transitioned from a low- to a high choice media environment. Moving along the x-axis we can see that the distances between the three levels have increased which indicates that news consumption gaps along motivational lines have increased.

Figure 3. *Over time changes in news consumption by different levels of political interest*



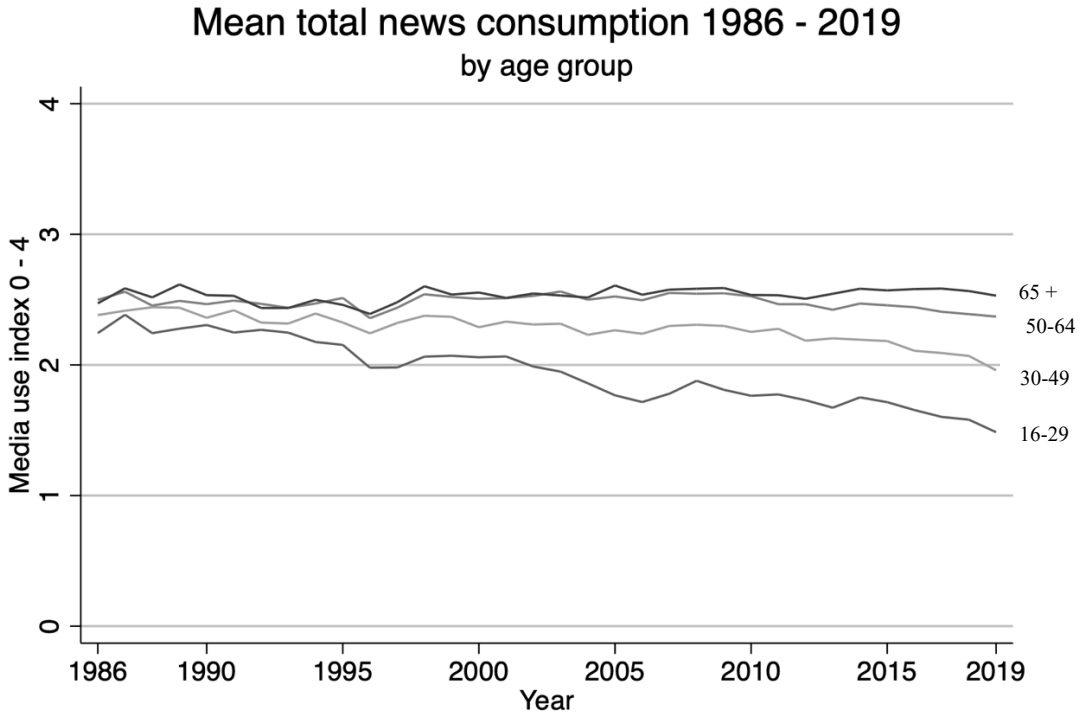
Note: Standardized values. Media use index (range 0: no news consumption – 4: all media types daily) consists of = TV-news 0-1 (watching commercial news: Tv4 Nyheterna or public service news: Aktuellt/Rapport or svt nyheter online) + Newspaper print/online 0-1 (reading at least one morning newspaper print or online) + Tabloids, 0-1 (reading Aftonbladet, Expressen, GT or Kvällsposten print or online) + Radio news 0-1 (listening to Ekot or consuming news from Swedish radio website). News in social media not included in index.

What is also interesting to note in figure. 3 is that this gap does seem to result from a steeper decline among the least interested. For the most interested, the mean news consumption has been rather stable across time but the lower we go in level of political interest the steeper downward slope we see. What this indicates then is that people who are not especially interested in politics can, and also seems to, increasingly tune out of news in favour of other activities in the high-choice media environment. This overview gives some preliminary evidence to support what Prior (2007) called the voluntary segmentation of news audiences along preferential lines.

6.1.3 Overall news consumption and age

Investigating the other constitutive part of my hypothesized focal relationship, age, I calculated the means for four different age groups. The results can be seen in figure. 4. Looking at the different age groups It seems like the older you are, the more overall news one consumes. Inspecting the time trend, we can see some interesting developments. In 1986 there were very small age differences in news consumption, with all age groups positioning themselves around 2 – 2.5 on the news consumption index. As we follow the x-axis across time, we can see that the age differences increases and in 2019 the difference between the oldest and youngest age group is approximately 1 point.

Figure. 4. *Over time changes in news consumption for different age groups*



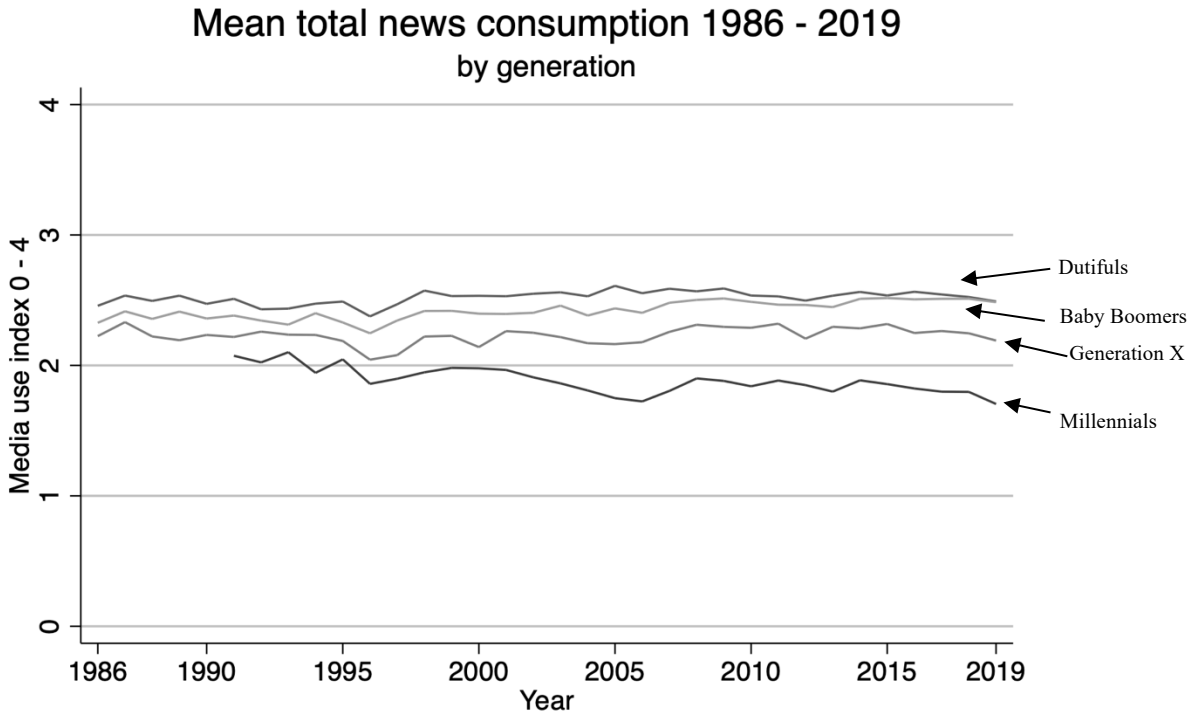
Note: Standardized values. Media use index (range 0: no news consumption – 4: all media types daily) consists of = TV-news 0-1 (watching commercial news: Tv4 Nyheterna or public service news: Aktuellt/Rapport or svt nyheter online) + Newspaper print/online 0-1 (reading at least one morning newspaper print or online) + Tabloids, 0-1 (reading Aftonbladet, Expressen, GT or Kvällsposten print or online) + Radio news 0-1 (listening to Ekot or consuming news from Swedish radio website). News in social media not included in index.

The dynamics of age and news consumption across time looks pretty similar to those of political interest (figure 3). Like those who are very politically interested, the mean of the oldest age groups has remained remarkably stable. The younger we go in the age groups, the steeper the declining slope in overall news consumption.

6.1.4 Overall news consumption and generations

Graphing overall news consumption for the different generations in figure 5 the changes are less dramatic than the developments related to age. Similar trends are, however, visible. Travelling along the x-axis we can see that the four generations were closer to each other in the 80s and 90s, indicating increasing gaps between generations over time. Furthermore, these gaps seem to mostly stem from the decline in news consumption among the youngest generation.

Figure. 5. *Over time changes in news consumption for different generations*



Note: Standardized values. Media use index (range 0: no news consumption – 4: all media types daily) consists of = TV-news 0-1 (watching commercial news: Tv4 Nyheterna or public service news: Aktuellt/Rapport or svt nyheter online) + Newspaper print/online 0-1 (reading at least one morning newspaper print or online) + Tabloids, 0-1 (reading Aftonbladet, Expressen, GT or Kvällsposten print or online) + Radio news 0-1 (listening to Ekot or consuming news from Swedish radio website). News in social media not included in index.

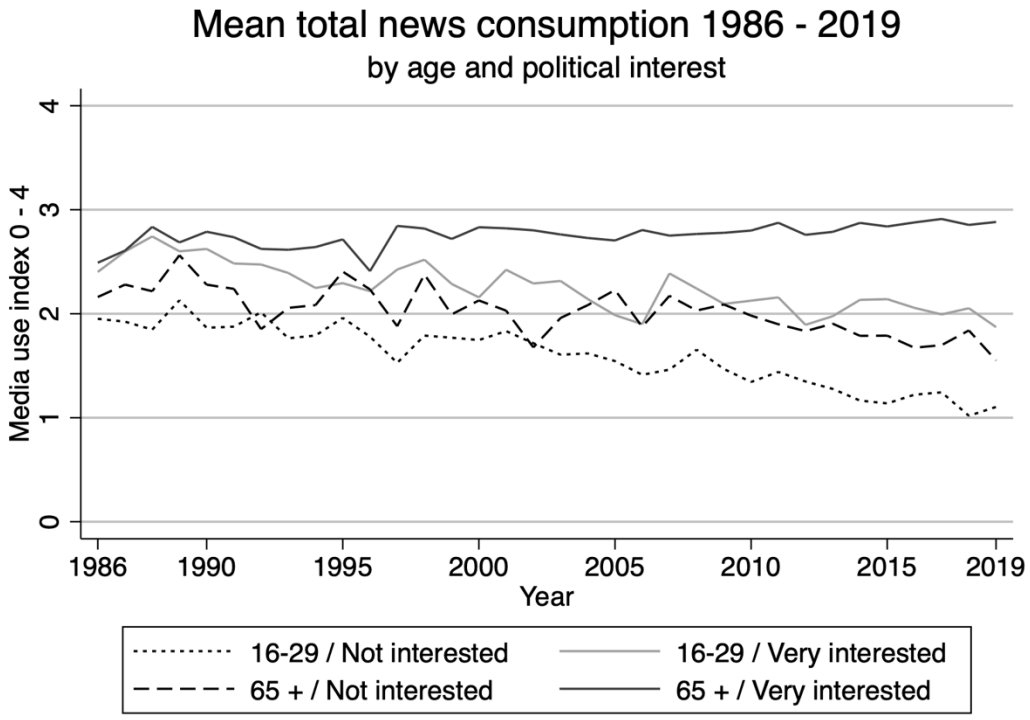
For the two older generations – dutifuls (born 1945 or earlier) and baby boomers (1946-1964) – news consumption are remarkably stable and actually seem to have increased somewhat as we have transitioned to a high-choice media environment. In 2019, the mean news consumption among dutifuls and baby boomers are practically the same. Since the news index consists of legacy media, this speaks to the notion that these generations seem to have continue to use the news media that they grew up with

(Westlund & Färdigh, 2013). As for generation X (1965-1975), the mean news consumption has almost changed nothing during the 33 years measured here (2.22 in 1986, 2.19 in 2019). The biggest source for generational fragmentation seems to be due to the decline among millennials (1976 or later) going from a mean of 2.07 in 1991 to 1.70 in 2019.

6.1.5 The interplay of age, generation, and political interest

For the last part of this descriptive section, we map out the mean consumption for different levels of political interest across different age group and generations. To avoid making the graphs too difficult to interpret, the results in figure 6 compares the news consumption for individuals who are very interested and not at all interested in the oldest age group (65+) and youngest age group (16-29). In figure 7, we find the mean news consumption for those who are very interested and not at all interested in the oldest (the dutifuls) and the youngest (millennials) generation.

Figure. 6. *Over time changes in news consumption for different age groups and political interest*



Note: Standardized values. Media use index (range 0: no news consumption – 4: all media types daily) consists of = TV-news 0-1 (watching commercial news: Tv4 Nyheterna or public service news: Aktuellt/Rapport or svt nyheter online) + Newspaper print/online 0-1 (reading at least one morning newspaper print or online) + Tabloids, 0-1 (reading Aftonbladet, Expressen, GT or Kvällsposten print or online) + Radio news 0-1 (listening to Ekot or consuming news from Swedish radio website). News in social media not included in index.

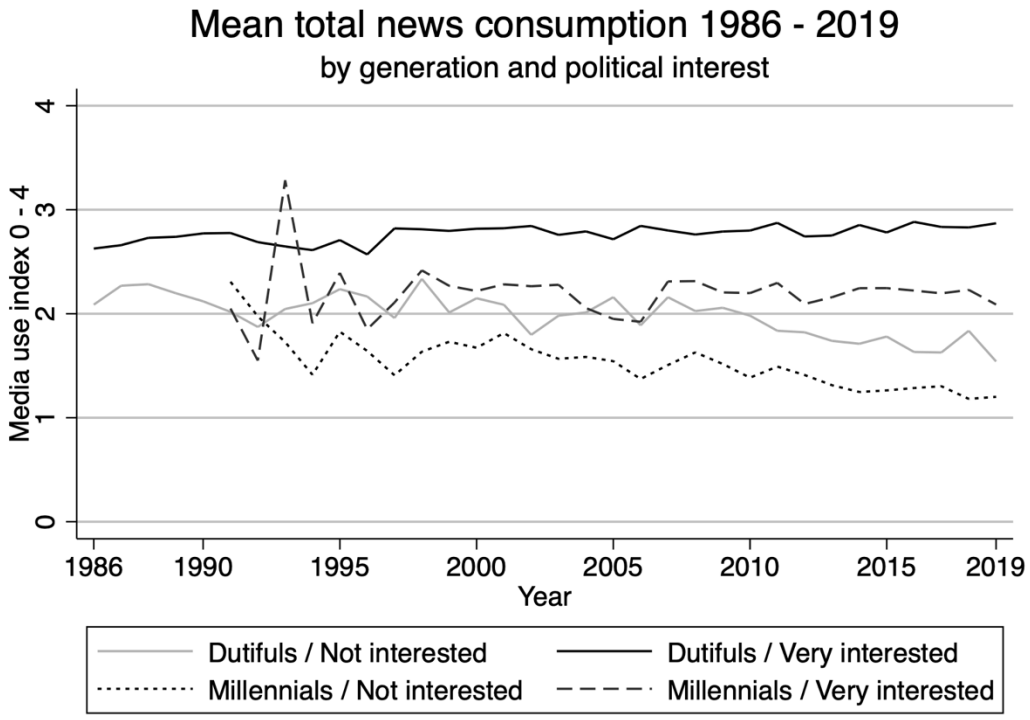
Starting with age and political interest. Figure 6 illustrates that there are substantial differences both within and between the age groups. Perhaps not surprising, older people with a high level of political interest are consistently related with the highest levels of overall news consumption. It is also clear that this group show very little changes over time, hovering slightly below 3 on the news index. The

importance of both political interest and age is also highlighted when comparing the young with high interest and the old with low interest. Even though these two groups are very close to each other over time, young people with a high interest do seem to consume more news compared with older people who are not interested. Lastly, we see that young people who are not interested in politics have consistently placed themselves lowest of the four groups examined.

The time trend is similar to the earlier figures. We can see that in the beginning of the measurement period there were smaller differences both between the age groups and levels of political interest. As time goes on, these differences grow. Furthermore, the increasing differences seem to be less the result of the interested increasing their news consumption, but rather due to those who are younger and / or less interested tuning out to a greater extent. Interestingly, while the age gap between the non-interested have remained stable since around 2005, the age gap between the very interested seem to have increased.

Turning to generations and political interest in figure 7, it is important to first note that millennials were not old enough to participate in the SOM-surveys until 1991. Additionally, in the 90s the two subsets of this generation – the uninterested and very interested - was also a very small part of the sample. As such, the means for the millennial generation are very uncertain in the early part of the time series and should be interpreted with caution. Even so, the general trend resembles that of age and political interest. We can see that both generational belonging and political interest does seem to impact overall news consumption. The very interested dutifuls consistently place themselves highest among the groups investigated. This group also show very little variation over time in their mean news consumption.

Figure. 7. *Over time changes in news consumption for different generations and political interest*



Note: Standardized values. Media use index (range 0: no news consumption– 4: all media types daily) consists of = TV-news 0-1 (watching commercial news: Tv4 Nyheterna or public service news: Aktuellt/Rapport or svt nyheter online) + Newspaper print/online 0-1 (reading at least one morning newspaper print or online) + Tabloids, 0-1 (reading Aftonbladet, Expressen, GT or Kvällsposten print or online) + Radio news 0-1 (listening to Ekot or consuming news from Swedish radio website). News in social media not included in index. Dutifuls (born 1945 or earlier), Millennials (born 1975 or later).

After the highly interested dutifuls, we find the highly interested millennials. While there have been some fluctuations between this group and the uninterested dutifuls of whose news consumption is the highest, since 2006/2007 the interested millennials have continuously placed themselves on a higher level. This might be because of the millennials growing older, indicating a life-cycle effect or the fact that questions regarding online news consumption of morning newspapers was added to the surveys during this period which could be more in line with this generation's digital upbringing. The group with the lowest overall news consumption is the uninterested millennials which seem to have dropped over one point on the index during the time series, with the reservation that the early predictions are quite uncertain. Lastly, as with the other figures, we can see increasing differences in news consumption based on both political interest and generational belonging.

Summing up, what is evident in the figures presented here is that the media environment and consumption of news have undergone substantial changes in recent decades. We can also see that age, generation and political interest are factors that have always been important predictors of news consumption. Looking specifically at political interest, we can see that this is a very strong predictor of news consumption, trumping both age and generational belonging in almost every year. Lastly, we can see that fragmentation along all these factors have increased over time. What these figures does not tell us however is the independent effects of these variables. We do not know whether we are seeing an effect of age or generation in these figures given that they are correlated (millennials are, for example, naturally younger than dutifuls). There is therefore sufficient reason to further investigate these factors in tandem using regression analysis.

6.2 The changing impact of political interest, age, and generational belonging

After inspecting the time trends using descriptive data, we can begin to analyse our data and to test our hypotheses. Starting with *H1, H2 & H3*, I conducted stepwise multilevel regressions using maximum likelihood estimation. The legacy news consumption index was used as a dependent variable. The results of the multilevel regressions are presented in table 1. Since the dataset used consists of repeated cross-sectional data, the time variable is included as a random intercept. The coefficients in the models are fixed effects across the whole sample and interpreted the same way as standard OLS regression.

Starting with model 1 we examine the focal relationship of political interest and legacy news consumption while holding time constant. The results support the hypothesis that political interest is associated with higher levels of news consumption. A one-step increase on the four point scale measuring political interest translates into roughly a .3 increase in news consumption. Given that the news index ranges from 0-4 this is a substantial and highly significant ($p < 0.001$) effect. In model 1 we can also see that the time variable is significant ($p< 0.001$) and negative, which further highlights that overall news consumption has gone down over time. The strength of these factors is evident when looking at the level 1 R^2 (0.088) which tells us that these two variables alone explain about 9 percent of the individual variation in legacy news consumption.

Table 1.
Effect of Political interest, age, generation, education, and gender on total news consumption 1986 – 2019. (Multilevel (mixed) models, maximum likelihood estimation)

	Legacy news consumption index (range: 0-4)							
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Political interest	0.294***(0.003)	0.248***(0.003)	0.250***(0.003)	0.241***(0.003)	0.235***(0.003)	0.106***(0.007)	0.236***(0.003)	0.236***(0.003)
Time (0-33, 0=1986)	-0.007***(0.001)	-0.010***(0.001)	-0.009***(0.001)	-0.010***(0.001)	-0.010***(0.001)	-0.019***(0.001)	-0.028***(0.001)	-0.006***(0.001)
Age (16-75)		0.014***(0.000)	0.014***(0.000)	0.015***(0.000)	0.015***(0.000)	0.015***(0.000)	0.007***(0.000)	0.015***(0.000)
Generation (ref: Dutifuls)								
Baby Boomers			0.136***(0.008)	0.126***(0.008)	0.125***(0.008)	0.121***(0.008)	0.0877***(0.008)	0.210***(0.016)
Generation X			0.165***(0.013)	0.153***(0.013)	0.151***(0.013)	0.145***(0.013)	0.129***(0.013)	0.347***(0.022)
Millennials			-0.030(0.0180)	-0.029(0.0180)	-0.030(0.0180)	-0.033(0.018)	0.012(0.0180)	0.317***(0.028)
Education (ref: low)								
Medium				0.112***(0.006)	0.115***(0.006)	0.118***(0.006)	0.107***(0.006)	0.109***(0.006)
High				0.109***(0.006)	0.118***(0.006)	0.120***(0.006)	0.114***(0.006)	0.118***(0.006)
Gender (ref: female)								
Male					0.053***(0.004)	0.054***(0.004)	0.052***(0.004)	0.052***(0.004)
Interactions								
Political interest x time						0.006***(0.000)		
Age x time							0.000***(0.000)	
Generation x time (ref: Dutifuls x time)								
Baby Boomers x time								-0.005***(0.001)
Generation X x time								-0.009***(0.001)
Millennials x time								-0.015***(0.001)
Intercept	1.975***(0.0178)	1.432***(0.0173)	1.386***(0.0249)	1.292***(0.0255)	1.271***(0.0255)	1.472***(0.0278)	1.625***(0.0303)	1.172***(0.0272)
Random Effects parameters								
Residual variance	0.589	0.533	0.526	0.525	0.524	0.522	0.522	0.522
Time variance	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001
Observations (level 1)	123 409	123 409	123 409	123 409	123 409	123 409	123 409	123 409
Years (level 2)	33	33	33	33	33	33	33	33
R^2 level 1	0.0883	0.175	0.185	0.187	0.188	0.191	0.192	0.191
R^2 level 2	0.428	0.499	0.490	0.493	0.495	0.465	0.408	0.627

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Standard errors in parentheses. Unstandardized b coefficients. P-values are computed with Wald statistics approximation (treating t as Wald z). R^2 calculated using Snijders/Bosker's multilevel R-squared estimation. Legacy news consumption index 0-4 (0= no news consumption, 4=all media types daily) consists of: Morning newspapers print/online (0-1) + Tabloids print/online (0-1) + TV news (0-1) + Radio news (0-1). Education: Low (primary education), Medium (more than primary but not university/college), High (university/college). Dutifuls (born 1945 or earlier), Baby Boomers (1946-1964), Generation X (1965-1975), Millennials (born 1976 or later).

In model 2 and 3 age and generational belonging are added to the model. With the inclusion of age in model 2 the impact of political interest decreases but remains highly significant (b: 0.248, p<0.001). Age is shown also to be highly significant, and the massive impact age has on news consumption can be seen when inspecting the level 1 R^2 which jumps up to 0.175. This indicates that there are strong life-course effects influencing the choice how often people consume news. Looking at model 3 it seems like there is also a generational effect at play here. We can see that both Baby boomers and Generation Xers exhibit greater propensity in news consumption compared to the dutifuls. The reason for this might be that while the dutifuls grew up with only radio and newspaper - and thus formed their news habits around these media types - Baby boomers and Gen Xers grew up with radio, tv and newspapers while at the same time showing signs of incorporating digital media into their repertoires (Ghersetti & Westlund, 2018). Lastly, there is no statistically significant difference in news consumption among millennials compared to the dutifuls. A separate version of model 3 was run with millennials as the reference category (not shown) which confirms that Baby Boomers and Gen Xers tend to consume more news than millennials, while there is no statistically significant difference between millennials and dutifuls (Baby boomers: b=.166, P>.000; Gen X: b=.195, P>.000). As such, the generational effect does seem to exhibit a curvilinear pattern when looking at the whole sample.

Adding the variables of both education and gender in model 4 and 5, we can see that they are significant and in a positive direction. Having a higher education is related to higher overall news consumption and men tend on average to consume more news than women. Even so, the coefficient for gender is very small. In sum, these results show that political interest is an important motivational factor influencing news consumption, even when controlling for other factors such as age, generation, gender, and education. Additionally, the findings indicate that news consumption exhibits both life-course and generational effects, at least on an aggregate level across the whole sample.

Investigating the over-time changes as we have transitioned from a low- to a high-choice media environment, three separate interaction terms were added in models 6-8. These are between political interest and time (model 6), age and time (model 7) and lastly generations and time (model 8). For a visual presentation of the two-way interactions, see appendix 3. Beginning with *H1* in model 6 we can see that political interest and time interact in such a way that they together increase overall news consumption, above and beyond the individual effects of time, age, and generation. Put simply, the impact of political interest on news consumption has increased over time and *H1* finds strong support in the model. Moving to *H2.* In model 7 we can see that the interaction between age and time is highly significant (p<0.001) and in the hypothesized direction. This suggests that age is not only an important predictor of news consumption but also that this effect has increased over time. Thus, *H2* is supported.

If we hold age constant and instead focus on the generational effects over time in model 8, all three interaction coefficients are highly significant and negative. The news consumption of all three generations – Baby Boomers, Gen Xers, and Millennials – have decreased over time compared to the Dutifuls. Importantly, we can also see that the negative impact of time on news consumption increases the younger the generation. This is in line with *H3* which states that the impact of generational belonging has increased over time. However, when inspecting the visual illustration of the interaction effect for generations and time (appendix 3, figure A3.3), we can see that while Baby Boomers, Gen Xers does show a steeper downward slope compared to the dutifuls, the result of this is that the generational differences are actually smaller in 2019 than in 1991. On the other hand, millennials which have seen the biggest decline and position themselves significantly lower than the other generations in 2019. In

conclusion, *H3* receives mixed support. The younger generations do show a greater decline over time, but the result of this is not necessarily a greater impact of generational belonging on news consumption.

In sum, *H1* and *H2* find strong support in the models. These findings are in line with previous studies that have found similar results that individual level motivations and age are becoming more important over time (Prior, 2007; Strömbäck et al. 2013; Westlund & Weibull, 2013). Hypothesis 3 receives mixed support, showing that the news consumption among younger generations have declined the most. Although the outcome of this decline looks somewhat different depending on generation. For baby boomers and Gen Xers, the decline among these generations have reduced the news consumption gap between them and the dutifuls. For the millennials, the decline in news consumption has increased the gap between this generation and the other three.

6.3 Digging deeper with three-way interactions

Turning our attention to *H4* and *H5*, we can begin to dig deeper into these findings to see whether the effect of political interest on news consumption has increased more for younger people over time. As previously mentioned, some studies have indicated that political interest is a more important predictor for younger people compared to older ones (Boulianne & Shehata, 2021; Andersson, 2019). To my knowledge, no previous study has approached this relationship from a longitudinal perspective. Furthermore, this study also tries to investigate both age and generational effects. To do this, two three-way interaction models were created which investigates whether the relationship between political interest and time looks different depending on age and generational belonging. By its nature, three way interaction tables are complicated to interpret and takes up a lot of space and was therefore placed in the appendix to this study (appendix 4). Following Brambor and colleagues' (2006) argument that all constitutive elements of a three-way interaction ought to be included in the models, we can also see that the two models contain three two-level interactions (Appendix 4, Model 1: political interest x time, political interest x age and time x age; Model 2: generation x time, generation x political interest and political interest x time). In order to facilitate interpretation of the coefficient, the three way interactions are illustrated in the following subsections. The illustrations are based on the interaction models found in appendix 4.

6.3.1 The interplay of political interest and age over time

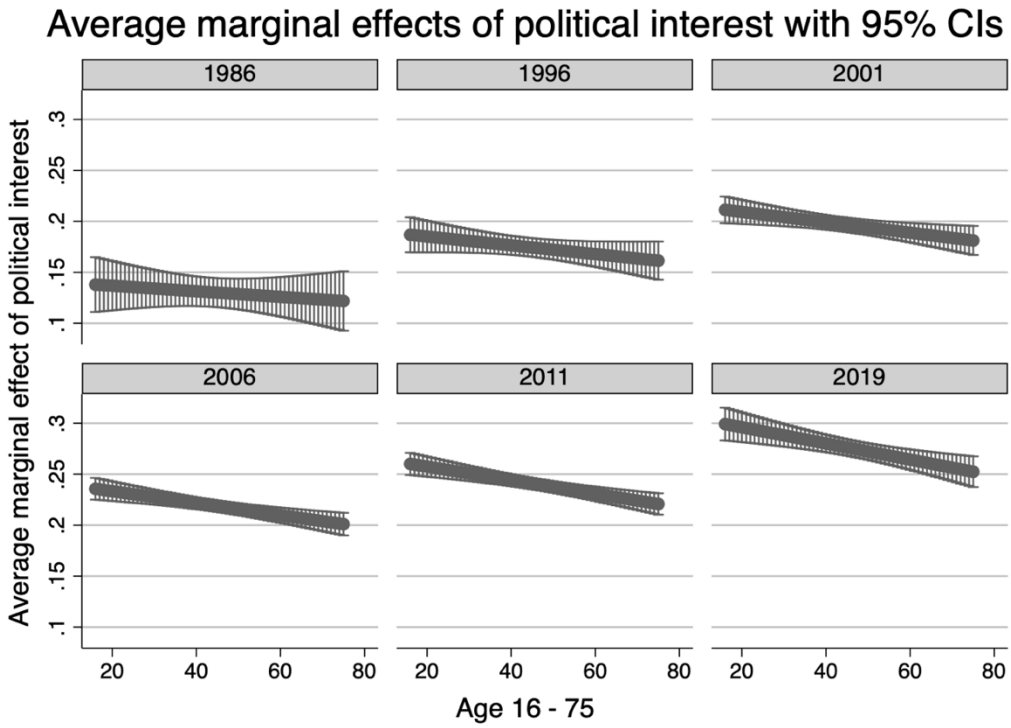
Beginning with *H4.* By inspecting the three-way interaction between political interest, age, and time in model 1 (appendix 4) we can see that the interaction term is not statistically significant. While this seem to go against *H4*, we should not be too quick to jump to conclusions. Many scholars have warned about drawing too broad conclusions from p-values alone and dismissing interaction terms based on significance (Brambor et al. 2006). The American statistical association has recently criticized the overreliance of statistical significance stating: "Don't believe that an association or effect is absent just because it was not statistically significant" (Wasserstein et al., 2019:1). We should therefore continue to probe the interaction to see if *H4* should be supported or rejected. To begin with, we can calculate the average marginal effect for political interest for different ages at different times. The result of this is presented in figure 8.

Figure 8 should briefly be described. In short, based on the three-way interaction in model 1 (appendix 4) the average marginal effect of political interest was calculated - that is, how much does news consumption increase on average when political interest increases by one point - for different ages and

years. This marginal effect is presented on the y-axis and age is located on the x-axis. The relationship between political interest and age is then presented for six different years. Looking at figure 8, several important findings are displayed. First, we can clearly see that political interest is becoming more important over time, the slope does increase for every year that is presented, placing itself higher on the y-axis. In 1986 the marginal effect of political interest was somewhere between .1 to .15. In 2019, the marginal effect has jumped up several steps, placing itself around .25 - .3.

Second, inspecting the marginal effect along age on the x-axis, we can notice some interesting developments. In 1986, the marginal effect of political interest on overall news consumption was the same across the different ages, indicated by the relative straight slope and large confidence intervals. At the beginning of the time-series then, political interest did influence news consumption, but this effect was smaller and constant across ages. Moving forward in the time series, we begin to notice a gradual increase in the downwards slope as well as smaller confidence intervals. This indicates that the effect of political interest has not only increased over time, but also that it has increased more for the youngest age groups.

Figure 8. *Average marginal effect of political interest on news consumption for different years and ages.*



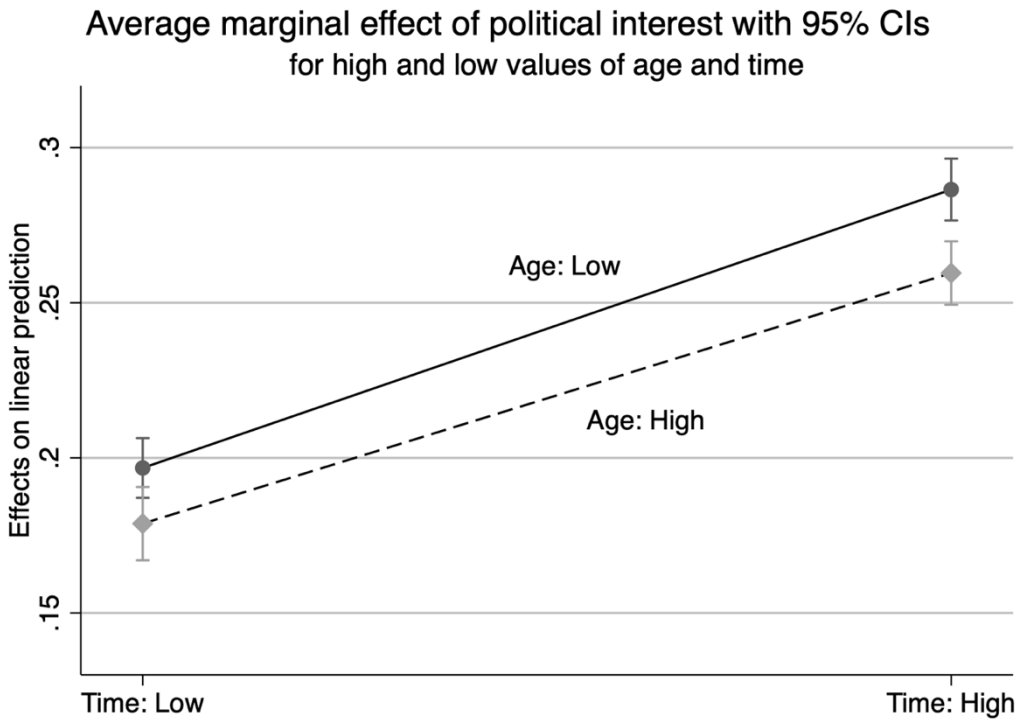
Note: Figure based on three-way interaction (political interest x age x time) found in appendix 4 (model 1). Dependent variable: Legacy news consumption index (standardized values, range 0 -4). All other variables kept as observed.

The visual presentation of the three-way interaction in figure 8 does seem to be in line with *H4*. In order to obtain more evidence if this really is the case, we need to test whether the differences we see in the

slopes in figure 8 are statistically significant. The sheer number of data does however pose a problem in comparing slopes. Given that we are measuring the effect of political interest over 33 years and between ages 16-75, calculating the marginal effects of political interest for every age each year and then comparing these slopes to each other would not only be impractical, but it would also be very hard to interpret. Instead, we can rely on an approach developed by Dawson & Richter (2006) in which we calculate simple slopes for the marginal effect when moderator variables (i.e., age and time) are held constant at different level of high and low values. We can then compute and compare the differences between these slopes.

Adapting the Dawson & Richter (2006) method to this study, high and low values of the time and age variables were calculated based on one standard deviations from the mean (Time: low value = 13.16, high value = 31.43; Age: low value = 30.61, high value = 63.99). These values were then used to calculate the marginal effect of political interest for four different combinations (Age: Low/Time: Low, Age: Low/Time: High, Age: High/Time: Low & Age: High/Time: High). The result of these combinations can be seen in figure 9.

Figure 9. *Average marginal effect of political interest on news consumption at high/low values of time and age*



Note: Marginal effect of political interest on legacy news consumption index (range 0-4). Time: low value = 13.16, high value = 31.43; Age: low value = 30.61, high value = 63.99. All other variables kept as observed.

The result presented in figure. 9 mirrors that of the earlier figures. We can see that early in the time series, there was no substantial difference in the effect of political interest on news consumption since the 95% confidence intervals overlap for both younger and older people. Later in the time series – right

hand side of the figure – we can see that there is a statistically significant difference in what effect political interest has on news consumption and that this effect is greater for younger people.

To further substantiate the findings, the slope coefficients of different combinations of time and age are compared to each other in table 2 to see if they are significantly different from each other. Since these are post-hoc tests, the p-values for the comparisons are adjusted with the help of Bonferroni correction. The result of table 2 provide us with interesting findings. First of all, the effect of time is evident when comparing the combinations where age is held constant, but time is changed (comparison 1 & 6). Second, we can see that there was no statistically significant difference between older and younger people when it comes to the effect of politic interest early in the time series (comparison 5) but that the effect of political interest on news consumption is somewhat higher for younger people in recent years and that this difference is statistically significant (comparison 2). Comparing the over time differences for older people (comparison 1) and younger people (comparison 6) we see that the effect of political interest has increased more for younger people. The marginal effect of political interest on news consumption has increased .089 for younger people and .081 for older people.

Table 2. *Comparisons of marginal effect of political interest at high/low values of time and age*

Comparison no.	Comparison	Contrast dy/dx	Delta-method standard error	Bonferroni z	Bonferroni P>|z|	Bonferroni [95% conf.	interval]
1	Age: High / Time: Low Vs. Age: High / Time: High	-0.081	0.008	-10.06	0.000	-0.102	-0.059
2	Age: Low / Time: High Vs. Age: High / Time: High	0.027	0.007	3.81	0.001	0.008	0.045
3	Age: Low / Time: Low Vs. Age: High / Time: High	-0.063	0.007	-8.90	0.000	-0.081	-0.044
4	Age: Low / Time: High Vs. Age: High / Time: Low	0.108	0.008	13.71	0.000	0.087	0.128
5	Age: Low / Time: Low Vs. Age: High / Time: Low	0.0179	0.007	2.39	0.100	-0.002	0.038
6	Age: Low / Time: Low Vs. Age: Low / Time High	-0.089	0.007	-12.86	0.000	-0.108	-0.071

Note: Slope comparisons of the marginal effect of political interest on legacy news consumption index (range 0-4). Time: low value = 13.16, high value = 31.43; Age: low value = 30.61, high value = 63.99. All other variables kept as observed. P-values are computed with Wald statistics approximation (treating t as Wald z).

Finally, as an additional test, I ran seven separate OLS regression models each representing a five year period (with the exception for the last period which is 4 years). The regression models can be found in appendix 7. The results from the periodic OLS regressions confirm the earlier findings. In the earlier time periods, there was no statistically significant interaction between age and political interest. During

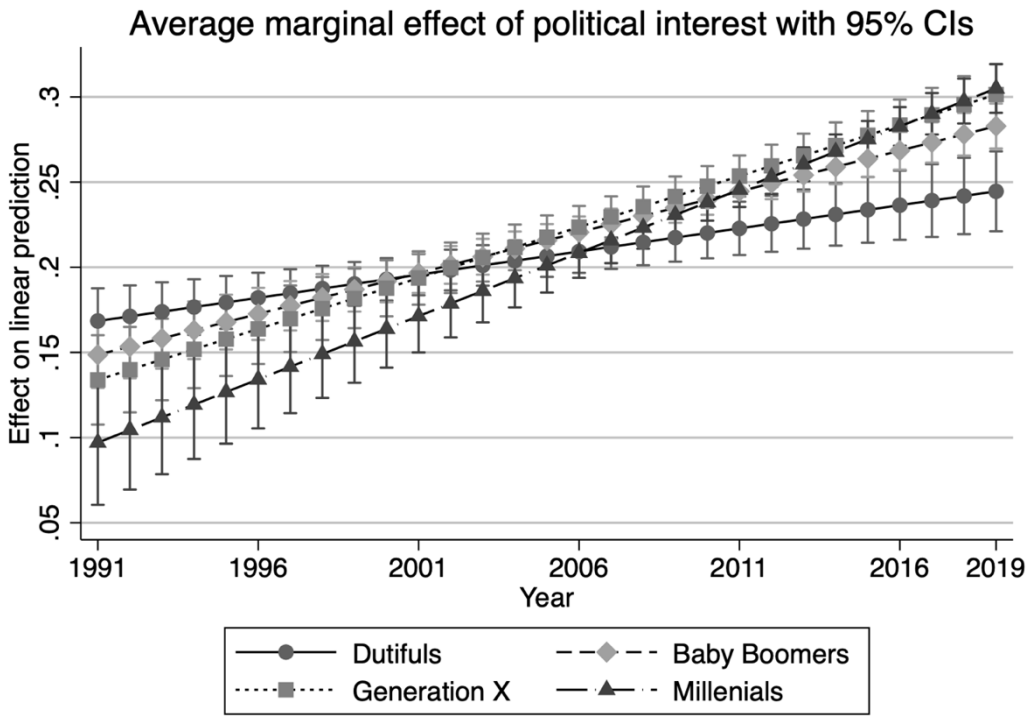
the later time periods, however, the interaction between age and political interest become statistically significant with a negative sign. In other words, the effect of political interest on news consumption decreases with age.

Summing up, the findings presented in figure 8 and figure 9 as well as table 2 and appendix 7 provides support for *H4*. Albeit small, the effect of political interest on overall news consumption has increased more for younger people compared to older.

6.3.2 The interplay of political interest and generations over time

Continuing with *H5.* In figure 10 we find the visual representation of the three-way interaction between political interest, generational belonging, and time. The x-axis begins in 1991 to include all generations since this is the first year that millennials appeared in the surveys.

Figure 10. *Average marginal effect of political interest on news consumption for different years and generations*



Note: Figure based on three-way interaction (political interest x generation x time) found in appendix 4 (model 2). Dependent variable: Legacy news consumption index (standardized values, range 0 -4). All other variables kept as observed.

In the beginning of the time series, we can see that the impact of political interest was weaker and the large and overlapping confidence intervals tells us that there were no statistically significant differences in the effect of political interest between the generations. Additionally, we can see that over time the

marginal effect of political interest has increased for all generations, meaning that the impact of this variable becomes more important as we have transitioned from a low- to a high-choice media environment. Visually inspecting the time trend in figure 10, millennials and Gen Xers - the two youngest generation – seem to have a steeper slope than the other generations. This indicates that the impact of political interest has increased more among millennials and Gen Xers, and they position themselves at the highest value in the later part of the time series. This seems to partially support *H5* that the impact of political interest has increased more for the younger generations.

As with the three-way interaction regarding age. To substantiate the findings, pairwise comparisons with Bonferroni corrections were run at different combinations of generational belonging as well as high and low values of the time variable. This resulted in eight different slopes (Dutifuls/Time: Low + Time: High; Baby Boomers/Time: Low + Time: High; Generation X/Time: Low + Time: High; Millennials: Time: Low + Time: High) and 28 pairwise comparisons between them. To save space the table was placed in appendix 5 and the main points are summarized here.

The result of the comparisons shows that there were no statistically significant differences between generations in the impact of political interest on news consumption early in the time period (comparisons 9, 11, 13, 20, 22 & 27). At the more recent end of the time-series we can see that the impact of political interest on news consumption is significantly higher for both Gen Xers and Millennials compared to Dutifuls (comparisons 4 & 6). On the other hand, there are no statistically significant differences between Baby Boomers and the Dutifuls (comparison 2) nor between Baby Boomers and Gen Xers/ Millennials (comparison 15 & 17).

Returning to our hypothesis, *H5* stipulates that the effect of political interest on news consumption has increased more for younger generations compared to older ones. Comparing the slopes for the different generations early and late in the time period (comparisons 1, 14, 23 & 28) we can see that there is a statistically significant over time increase in the effect of political interest for all generations. Furthermore, we can see that the younger the generations, the greater the increase in the effect of political interest (Baby Boomers = 0.050, Baby Boomers = 0.088, Generation X = 0.109, Millennials = 0.136). However, since there is no statistically significant difference between Baby Boomers, Gen Xers, and millennials in the later parts of the time series, we cannot say for certain that one has increased more than the others.

In conclusion, the findings in figure. 10 and the slope comparisons (appendix 5) provide mixed support for *H5*. The impact of political interest does seem to have increased more for generation X and millennials compared to the dutifuls, but not compared to the Baby Boomers. Furthermore, there is not statistically difference between Baby Boomers and Dutifuls.

6.4 Media specificities

If we are interested in studying audience fragmentation in a high-choice media environment we should not only look at overall news consumption but also investigate the developments for specific media types. This is important for at least two reasons. First, as Fraile & Iyengar (2014:275) put it: “not all news sources are equally informative” and provide different opportunities for exposure and learning from news (see for example Shehata & Strömbäck, 2011; Weibull & Wadbring, 2014; Strömbäck &

Nord, 2017). To solely rely on an additive index of overall news consumption runs the risk of blurring important insight into how audiences actually consume news in the high-choice media environment. Second, it also allows us to investigate the impact of online news consumption and whether this has contributed or diminished audience fragmentation, which is an ongoing debate in the scholarship (Prior, 2007; Webster, 2014). According to Webster's (2014) infrastructural perspective, the information regimes on the digital marketplace of attention should contribute to a massively overlapping culture, effectively increasing chances for news exposure and decrease fragmentation. On the other hand, the internet provides almost unlimited opportunities for content selection which, according to the OMA-model, should increase preference based gaps (Prior, 2007).

With this in mind, we can turn to *H6* which postulates that the impact of political interest has increased for all media types. The results are presented in table 3. It is a large table but what we really are interested in here is the interaction effects. The table is organized as such, for each media type three models were run. In model 1 for each news media, we get the interaction between political interest and time as well as the fixed effects for the age and generation variables. In model 2, the interaction between age and time is presented. Lastly in model 3, we find the interaction between generational belonging and time. In model 2 and 3 for each media type we also get the fixed effects for political interest. It should be pointed out that due to the sample sizes and number of years differs between the different groups and some of them are measured on a different scale (tabloids and index of online news), direct comparisons between the media types are hard to make.

Turning our attention to model 1 of the various media types, *H6* receives support for all legacy media, even online only consumption of these (model 1a-e). News in social media was the only outlet where *H6* found no support. For social media news, the impact of political interest is actually decreasing (model 1f). While political interest still seems to be related to higher news consumption in social media (model 2f) these results indicate that this impact is becoming weaker over time. A potential explanation of this could be that politically interested are usually early adopters of new forms of technologies and as more, less interested, people join the medium they also get exposed to news in this format.

Turning to *RQ1* which asks how the interaction between age and time as well as generation and time impact the consumption of different kinds of news media. Beginning with age, we can see that for morning newspapers, TV news, radio news and the online news index the impact of age is positive and statistically significant (model 1a, 1b, 1d, 1e). Furthermore, the interaction effect for these media types is positive and statistically significant (model 2a, 2b, 2d, 2e). Thus, for these media, age is correlated with higher news consumption and this impact has increased over time. Tabloids show no significant effects of age and no significant interaction effect (model 1c & 2c). Lastly, we have news in social media which, perhaps unsurprisingly, has a negative relationship with age, meaning that younger people are more likely to consume news this way (model 1f). Interestingly, the interaction effect is positive and significant, which indicates that this gap is decreasing over time (model 2f). Although the short timespan does make it uncertain to discern a clear time-trend.

Table 3. Over time effect for political interest, age and generation for different types of news media. Multilevel regression analyses using maximum likelihood estimation (unstandardized regression coefficients)

	Morning newspapers 1986 – 2019 Range: 0-5 (0-never, 5 – daily)			TV news 1986 - 2019 Range: 0-5 (0-never, 5-daily)			Tabloids 1986 – 2019 Standardized values Range: 0-1 (0-never, 1-daily)			Radio 1986 – 2019 Range: 0-5 (0-never, 5-daily)			Index of Online news 2014 – 2019 Range: 0-4 (0-never, 4-all media daily)			Social media news (2014-2019) Range: 0-5 (0-never, 5-daily)		
	Model 1a	Model 2a	Model 3a	Model 1b	Model 2b	Model 3b	Model 1c	Model 2c	Model 3c	Model 1d	Model 2d	Model 3d	Model 1e	Model 2e	Model 3e	Model 1f	Model 2f	Model 3f
Political interest	0.002	0.276***	0.277***	0.150***	0.311***	0.312***	0.003	0.027***	0.027***	0.346***	0.455***	0.453***	-0.187*	0.251***	0.251***	1.045***	0.278***	0.278***
	(0.016)	(0.006)	(0.006)	(0.013)	(0.005)	(0.005)	(0.003)	(0.001)	(0.001)	(0.018)	(0.007)	(0.007)	(0.095)	(0.005)	(0.005)	(0.208)	(0.012)	(0.012)
Time (0-33, 0=1986)	-0.051***	-0.065***	-0.022***	-0.027***	-0.046***	-0.006***	-0.000	0.000	-0.000	-0.019***	-0.033***	-0.002	0.024*	-0.038***	0.083***	0.170***	0.012	0.119***
	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)	(0.002)	(0.000)	(0.000)	(0.000)	(0.002)	(0.002)	(0.002)	(0.0104)	(0.012)	(0.012)	(0.032)	(0.033)	(0.035)
Age (16-75)	0.024***	0.010***	0.024***	0.036***	0.023***	0.035***	-0.000	-0.000	-0.000***	0.018***	0.008***	0.022***	0.003***	-0.053***	0.002**	-0.047***	-0.122***	-0.048***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.005)	(0.001)	(0.002)	(0.011)	(0.001)
Generation (ref: Dutifuls)																		
Baby Boomers	0.090***	0.027	0.282***	0.077***	0.016	0.116***	0.064***	0.065***	0.027***	0.120***	0.077***	0.496***	0.291***	0.258***	0.647*	0.169***	0.119**	-1.345
	(0.018)	(0.018)	(0.036)	(0.015)	(0.015)	(0.029)	(0.004)	(0.004)	(0.008)	(0.020)	(0.020)	(0.040)	(0.017)	(0.017)	(0.293)	(0.040)	(0.041)	(0.698)
Generation X	0.013	-0.018	0.340***	0.027	-0.005	0.488***	0.114***	0.116***	0.013	0.155***	0.132***	0.873***	0.533***	0.490***	1.565***	0.403***	0.337***	-0.804
	(0.029)	(0.029)	(0.048)	(0.023)	(0.023)	(0.039)	(0.006)	(0.006)	(0.010)	(0.032)	(0.032)	(0.054)	(0.025)	(0.026)	(0.320)	(0.056)	(0.057)	(0.743)
Millennials	-0.193***	-0.111**	0.692***	-0.095**	-0.020	0.687***	0.096***	0.096***	0.056***	-0.271***	-0.219***	-0.047	0.463***	0.416***	2.560***	0.250**	0.176*	1.843**
	(0.0394)	(0.0395)	(0.0628)	(0.0316)	(0.0317)	(0.0502)	(0.00848)	(0.00852)	(0.0135)	(0.0441)	(0.0442)	(0.0698)	(0.0356)	(0.0359)	(0.301)	(0.077)	(0.078)	(0.705)
Education (ref: low)																		
Medium	0.224***	0.202***	0.202***	-0.027**	-0.047***	-0.047***	0.004	0.004	0.004	0.341***	0.328***	0.339***	0.236***	0.234***	0.235***	0.329***	0.329***	0.329***
	(0.0134)	(0.0134)	(0.0134)	(0.0108)	(0.0107)	(0.0108)	(0.00288)	(0.00288)	(0.00288)	(0.0150)	(0.0150)	(0.0150)	(0.0138)	(0.0138)	(0.0138)	(0.0320)	(0.0320)	(0.0320)
High	0.485***	0.473***	0.480***	-0.169***	-0.178***	-0.169***	-0.070***	-0.070***	-0.070***	0.588***	0.581***	0.586***	0.365***	0.363***	0.364***	0.327***	0.328***	0.329***
	(0.014)	(0.014)	(0.014)	(0.012)	(0.012)	(0.012)	(0.003)	(0.003)	(0.003)	(0.016)	(0.016)	(0.016)	(0.014)	(0.014)	(0.014)	(0.033)	(0.033)	(0.033)
Gender (ref: female)																		
Male	-0.027**	-0.030***	-0.029**	-0.133***	-0.136***	-0.135***	0.032***	0.032***	0.032***	0.268***	0.267***	0.267***	0.107***	0.108***	0.108***	-0.458***	-0.458***	-0.458***
	(0.009)	(0.009)	(0.009)	(0.007)	(0.007)	(0.007)	(0.002)	(0.002)	(0.002)	(0.010)	(0.010)	(0.010)	(0.008)	(0.008)	(0.008)	(0.018)	(0.018)	(0.018)
Interactions																		
Political interest x time	0.012***			0.007***			0.001***			0.005***			0.014***			-0.025***		
	(0.000)			(0.000)			(0.000)			(0.000)			(0.003)			(0.007)		
Age x time		0.001***			0.001***			-0.000			0.000***			0.002***			0.002***	
		(0.000)			(0.000)			(0.000)			(0.000)			(0.000)			(0.000)	
Generation x time (ref: Dutifuls x time)																		
Baby Boomers x time			-0.011***			-0.004***			0.002***			-0.017***			-0.012			0.049*
			(0.001)			(0.001)			(0.000)			(0.002)			(0.010)			(0.023)
Generation X x time			-0.017***			-0.023***			0.004***			-0.029***			-0.035**			0.038
			(0.002)			(0.001)			(0.000)			(0.002)			(0.010)			(0.024)
Millennials x time			-0.038***			-0.034***			0.001**			-0.006**			-0.069***			-0.053*
			(0.002)			(0.002)			(0.000)			(0.002)			(0.010)			(0.023)
Intercept	2.775***	3.029***	2.176***	2.118***	2.486***	1.743***	0.436***	0.396***	0.453***	0.340***	0.609***	-0.273***	-0.671*	1.305***	-2.440***	-1.426	3.558***	0.223
	(0.0736)	(0.0787)	(0.0680)	(0.0581)	(0.0629)	(0.0533)	(0.0149)	(0.0158)	(0.0151)	(0.0647)	(0.0700)	(0.0671)	(0.319)	(0.358)	(0.357)	(0.974)	(1.033)	(1.080)
Random Effects parameters																		
Residual variance	2.487	2.485	2.487	1.616	1.612	1.610	0.116	0.116	0.116	3.135	3.132	3.129	0.820	0.818	0.819	3.412	3.409	3.407
Time variance	0.023	0.024	0.015	0.014	0.016	0.008	0.001	0.001	0.001	0.008	0.008	0.008	0.001	0.001	0.001	0.015	0.015	0.014
Observation (level 1)	122 422	122 422	122 422	123 108	123 108	123 108	122 983	122 983	122 983	123 073	123 073	123 073	49 344	49 344	49 344	43 923	43 923	43 923
Years (level 2)	33	33	33	33	33	33	33	33	33	33	33	33	6	6	6	6	6	6
R^2 level 1	0.127	0.127	0.129	0.240	0.242	0.246	0.0260	0.0254	0.0270	0.114	0.114	0.115	0.106	0.108	0.107	0.199	0.199	0.200
R^2 level 2	0.659	0.637	0.776	0.128	0.0200	0.457	0.179	0.171	0.219	0.312	0.304	0.295	0.884	0.885	0.903	0.751	0.750	0.760

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Standard errors in parentheses. Unstandardized b coefficients. P-values are computed with Wald statistics approximation (treating t as Wald z). R^2 calculated using Snijders/Bosker's multilevel R-squared estimation. Morning newspapers= consumption of morning newspaper online/offline. TV news = consumption of tv news online/offline. Tabloids = consumption of tabloids online/offline. Radio = consumption of radio news online/offline. Social media news = consumption of news in social media. Online news index 0-4 (0= no news consumption 4=all media types daily) consists of: Morning newspapers online (0-1) + Tabloids online (0-1) + Public service TV news online (0-1) + Radio news online (0-1). Education: Low (primary education), Medium (more than primary but not university/college), High (university/college).

Looking at the fixed effect of generational belongings (model 1a-f) we can first notice that overall, the coefficients are rather small. For morning papers and TV news, older generations tend to consume these more often than younger ones (model 1a, 1b). Furthermore, the interaction terms show that the consumption of these news medias have decreased over time for Baby Boomers, Gen Xers and Millennials compared to the dutifuls (model 3a, 3b). This overtime decline also increases the younger the generation. As for tabloids, we can see that Baby Boomers, Gen Xers and Millennials all seem to consume more from this media type compared to the dutifuls (model 1c) and that this difference has increased over time (model 3c). Consumption of radio news show a curvilinear relationship where Baby Boomers and Gen Xers tend to consume more from this media type compared to dutifuls but Millennials consuming less (model 1d). Still, these three generations show declining trends in consumption of this media compared to the dutifuls (model 3d). Regarding online news and news in social media, we find the largest coefficients for generational belonging compared to the dutifuls (model 1e & 1f) This gap does, however, seem to decrease slightly over time (model 3e & 3f).

In sum, we find evidence that the impact of political interest has increased for most of the media types measured. The exception being consumption of news in social media, where the interaction effect is negative. There are also strong age effects present in these models, with higher age being correlated with higher levels of news consumption for most of the media types. The exception being tabloids and news in social media with the former having no statistically significant age effects nor interaction effect and the latter having a negative age effect (i.e., being younger is related to higher levels of consumption of news in social media). The interaction effect for social media is positive which indicates a decrease in this age gap. The generational effects follow much that has been written about generational media consumption (Westlund & Weibull, 2011; Ghersetti & Westlund, 2018). This is most evident when looking at morning newspapers and TV news where older generation tend to consume these more and that these differences have increased over time. Younger generations (such as Gen Xers and millennials) on the other hand tend to consume online media and news in social media to a greater extent. However, these differences appear to be somewhat weakening.

7. Conclusions and discussions

This study has investigated the changing impact of political interest, age, and generational belonging on news consumption in Sweden between the years 1986 – 2019, both individually and their conditional relationship. It has done so by departing from a theoretical framework based on the OMA-model and theories of generational changes in citizenship norms, which predicts that motivational factors are becoming more important over time, but also that these effects are stronger for younger people and generations. Nearing the end of the thesis, this chapter begins by presenting and summarizing the conclusions drawn from the empirical analysis as well as answering the hypotheses and research questions. After this, the findings are discussed in light of previous research and the theoretical framework. The chapter ends with a reflection on the limitations on this study and provides avenues for future research.

7.1 Conclusions

7.1.1 Conclusions from the hypothesis testing

We begin to summarize the conclusions from the hypothesis testing. The first set of hypotheses stated that as we have transitioned from a low- to a high-choice media environment, the impact of political interest (*H1*) age (*H2*) and generation (*H3*) have increased. *H1* and *H2* find strong support in the empirical analysis. The continuous increasing importance of both political interest and age found in this study indicate that the news audience fragmentation reported in earlier studies (Strömbäck et al. 2013) are likely to continue. As for the changing impact of generational belonging, *H3* received mixed support. While the news consumption among younger generations have decreased more than older ones, it is not clear that this necessarily translates into a greater impact of this factor. The exception being millennials which both show the strongest decline and the lowest levels of news consumption. The fact that generational belonging show less clear-cut results compared to the age variable is perhaps not that surprising since socially constructed generations are bound to contain intra-generational heterogeneity (Mannheim, 1952). In other words, these findings are in line with Westlund & Weibull's (2013:167) argument that: "generational news accessing (societal level) are contingent upon transitions in media periods (media system level) as well as how people travel through life cycles (individual level)".

Building on theoretical arguments concerning changing citizenship norms in post-industrial western democracies (Bennett, 2008; Thorson, 2015), *H4* and *H5* stipulated that the changing impact of political interest would be stronger among younger people and generations respectively. The empirical analyses have shown that the impact of political interest has increased more for both younger people and younger generations compared to older ones (*H4*-supported). Although the generational findings are less conclusive (*H5*-partially supported). Even so, what is evident is that there were no age and generational differences in impact of political interest on news consumption early in the time series, but that these differences have increased over time. This indicates that for younger people in the high-choice media environment, individual level motivations are becoming increasingly important whether one chooses to consume news, at least on an aggregate level.

Looking at the media specific results, *H6* argued that the impact of political interest has increased for all media types. The rationale for this was the assumption in the OMA-framework that greater media choice necessarily leads to greater impact of individual level motivations (Prior, 2007). This argument seems to be truer for some media. While morning newspaper reading, TV news, tabloids, radio news and online news show increases in impact of political interest, the impact of political interest on

consumption of news in social media does actually seem to be decreasing over time. In sum, *H6* was supported except for news in social media.

7.1.2 Answers to the research questions

In the beginning of this thesis, an overarching research question was posed with the purpose of guiding the study: *How does age and generation condition the relationship between political interest and news consumption over time?* Based on the results in this study, we can now provide an answer.

In short, the effect of political interest has become a more important predictor for younger people and generations over time, compared to older ones. While the impact of political interest on news consumption is increasing for all respondents, this individual motivation does seem to be especially important for younger people. Looking at age, political interest has gone from having the same impact on news consumption across ages, to exhibiting stronger conditional relationship in recent years. These same trends are present but less conclusive when inspecting the effect of generational belonging. What is evident though is that there was no discernible generational difference in impact of political interest in the beginning of the time series, but that the impact of political interest has clearly increased more for the younger generations compared to the oldest.

In addition to looking at overall news consumption, this thesis has also investigated how the impact of age and generational belonging have changed over time for different kinds of news media (*RQ1)*. For age effects, we can see that for more traditional media types, such as morning newspapers, TV news and radio, older people tend to consume these more often and this effect is becoming stronger over time. This is also true when looking at online news consumption of these same news medias. The exception to these results is tabloids, which does not show any discernible effects of age, as well as social media, which has a negative relation to age (i.e., younger people tend to consume these more often). Also, for news in social media the age gap does seem to be decreasing over time.

Similar patterns can be found for generational media use. For morning newspapers, TV news and radio news where Baby Boomers have somewhat higher or similar news consumption to dutifuls while millennials clearly consume these types of media to a lesser extent. For these three news media types, however, baby boomers, Gen Xers and millennials show a declining trend compared to the dutifuls. This suggests that the dutifuls have very stable news habits in relation to these. For tabloids, online news and news in social media Baby boomers, Gen Xers and millennials all show significantly higher news consumption habits. Additionally, for online news and news in social media the two youngest generations - Gen X and Millennials – show substantially higher levels of consumption. However, these generational effects should not be overstated due to the coefficients being quite small.

7.2 Discussion

The result in this thesis contributes to the literature in multiple ways. First, the findings clearly support the central argument of the OMA-model. As the opportunities for media content selection increases in the high-choice media environment, the impact of individual level motivations will become a more important predictor for news consumption (Luskin, 1990; Prior, 2007). Conceptualizing political interest as an individual level motivation, this study has shown that the impact of this factor on news consumption has become more important over time. This is true both when looking at overall news

consumption as well as different types of news media. The longitudinal perspective utilized in this thesis - measuring news use over a 33-year period while utilizing measurements that incorporate the digital changes that have taken place in the media environment - provides robust evidence to previous literature that have investigated the relationship between political interest and news consumption (Prior, 2007; Ksiazek et al. 2010; Strömbäck et al. 2013; Aalberg et al.2012; Trilling & Schoenbach, 2013; Gorski & Thomas, 2021). Certain attention should be turned to the article that greatly influenced this study (Strömbäck et al. 2013). These studies share the same data – although this study encompasses more years – as well as similarities in operationalizations. Given that this study mostly finds the same results as Strömbäck et al. (2013) speaks to the robustness of both studies. On top of that, this thesis provides evidence that the trends identified by Strömbäck and colleagues (2013) continues to this day. The implications of these results are that the high-choice media environment does facilitate preference-based fragmentation of the audiences (Prior, 2007; Bennett & Iyengar, 2008).

At the same time, the results in this thesis challenges some core parts of the OMA-framework. A key component of the OMA-framework is that greater opportunities should translate into stronger impact of individual motivations. As Prior argued: "People have not necessarily changed; they have merely changed the channel. And they would have done it sooner, had they been given the chance" (2007:19). The results show that this is truer for younger people and generations compared to older ones. As such, this study is in line with previous literature (Boulianne & Shehata, 2021; Andersson, 2019) which have shown that "Political interest is clearly more important among some groups of citizens than others – even when their media environment is the same" (Boulianne & Shehata, 2021: 16). Furthermore, this study has investigated this relationship longitudinally and shown that this conditionality has not always existed, it has emerged over time. This longitudinal and generational OMA-framework substantiates the findings in previous research and provides much needed nuance to the literature. The results indicate that we are not only dealing with life-course effects or changes in the media environment, growing differences among the news audience might also be taking place. Differences strongly related to age and generation.

Arguably a large part of these age and generational differences reflects news habits of older cohorts socialized early in life (see for example Westlund & Weibull, 2013; Ghersetti & Westlund, 2018). However, the greater – and seemingly growing – impact of political interest on news consumption among younger people and generations suggests that more than habits are at play here. It could also reflect different norms around citizenship between younger and older generations as suggested by some scholars (Dalton, 2008, 2020; Bennett, 2008) where younger generations are less willing to "subscribe to the notion held by earlier generations that citizenship is a matter of duty" (Bennett, 2008:14). These changing norms may translate to news consumption and staying informed about politics being increasingly viewed as optional, a "choice left up to the individual. And it is a choice driven by personal interest" (Thorson, 2015:17). The longitudinal & generational perspective provided in this study does seem to support these notions, even in Sweden. This is significant since the Swedish context has provided a tough test for my hypotheses by traditionally being characterised as having a culture of news consumption and strong norms about staying informed about news and politics (Hallin & Mancini, 2004; Kalogeropoulos & Toff, 2020).

The specific media type findings are worth discussing too. Most noticeably, the findings related to news in social media showed that the impact of political interest is decreasing over time. While only measuring six years, this still indicates that social media might have a levelling effect on news consumption gaps. This is in line with Webster's (2014) argument that digital media contribute to a massively overlapping culture where people are more easily incidentally exposed to news. Empirical

work has also provided evidence of these lower thresholds for news consumption online (Karlsen et al. 2020; Taneja et al. 2018; Mangold et al. 2021). On the other hand, it is still uncertain how well a social media news diet makes up for a lack of more traditional news consumption. Apart from the problem of what it really means to consume news on social media, recent studies suggest that consuming news from these websites does not compensate for not using traditional media when learning about politics (Shehata & Strömbäck, 2021; see also van Aelst et al. 2017 for review). Additionally, a too heavy reliance on social media can contribute to a news-finds me perception which has been linked to decreases in both news consumption of other outlets as well as political knowledge (Gil de Zúñiga et al., 2017).

The argument made by Gil de Zúñiga and colleagues (2017) does find some support in this study. The results found that the online consumption of news from legacy media - the index of online news - showed an increasing impact of political interest over time. The same trend can be seen regarding age and generation. This suggests that even as more traditional news outlets pivot to online services – and thus lower the threshold to consume news - this does not necessarily translate to a decrease in preference-based audience fragmentation or invite younger cohorts into consuming news from them. In this sense, the findings are in line with the perspective that online news does not fundamentally change the dynamics of news consumption (Kruikemeier & Shehata, 2017; Kümpel, 2020; Thorson et al. 2018) and the notion that new technologies "provides youth already engaged with news with another path to acquire news, rather than inviting new users into the news consumption fold" (Edgerly et al. 2018:203). Furthermore, these findings support Kruikemeier & Shehata's (2017) argument that the broad categories of "online" and "offline" news use employed by some audience scholars (see for example Karlsen et al. 2020; Gorski & Thomas, 2021) are perhaps too uninformative. Scholars should therefore be sensitive to what people actually do when they consume news online (see also Strömbäck & Shehata, 2021).

We should reflect on the implications of these result as well. If political interest is a more important predictor for news use among younger people, we can expect that preference-based gaps reported in earlier studies (Prior, 2007; Strömbäck et al. 2013) will continue to increase and perhaps even accelerate as newer generations with weaker news habits and norms about news consumption replace older generations. The implications of these findings also extend to other forms of political participation, since news consumption has been shown to be positively related to political knowledge gains and political engagement (Prior, 2007; Ksiazek et al. 2010; Edgerly et al. 2018) as well as a sense of political efficacy (Moeller et al. 2014). Increasing audience fragmentation gaps along preferential lines might therefore prelude growing inequalities in other forms of political involvement.

The follow-up question then becomes, is this fragmentation necessarily a bad thing? Also, while the results suggests that social media might contribute to a decrease in news consumption gaps and promote a massively overlapping culture in the marketplace of attention (Webster, 2014), the question remains how well it can replace traditional news sources when learning about politics (Strömbäck & Shehata, 2021). But how politically knowledgeable should the citizenry be? Does it suffice for citizens to stay in tune with the news on social media or do we expect them to get their news from multiple sources on a regular basis?

There is no clear answer to these questions because it is arguably connected to normative concerns regarding democratic theory. And while it will not be very elaborated here, it is important to reflect on. This is because different theories of democracy "envision different roles for citizens to play" (Althaus 2012:10) and put different standards on news media in cultivating this imagined role of citizens

(Strömbäck, 2005). If one adheres to a deliberative view of democracy, where citizens are expected to be engaged in discussions on equal terms within the public sphere, the bar of news consumption is set higher. Coming from this view, the findings reported in this thesis are worrisome. Consumption of legacy news media, such as morning newspapers, television news and public service radio have been shown to contribute to knowledge gains (Fraile & Iyengar, 2014; Strömbäck & Nord, 2017) and reduce socioeconomic and preference based gaps in news consumption (Shehata & Strömbäck, 2011; Shehata et al. 2015). If the consumption of these outlets is increasingly contingent on political interest among younger generations, people already detached from politics might stray further away from the political world. On the other hand, if one takes the view of a more procedural democracy (Strömbäck, 2005) with monitorial citizens who are mostly uninterested in news but ready to act if needed, the results in this thesis should not necessarily be cause for concern. Zaller (2003), for example, has argued for a burglar alarm standard of news reporting in which the main function of the news would be "to call attention to matters requiring urgent attention, and to do so in excited and noisy tones. News would penetrate every corner of public space so few could miss it" (Zaller: 2003: 122). In this view then, perhaps staying in touch with the political world through social media is sufficient and a news-finds-me perception (Gil de Zúñiga et al., 2017) would both be a rational and efficient way for citizens to fulfill their role in this view of democratic theory.

Still, I would argue that the findings in this study are of concern. The problem, as I see it, is that political interest is not a trait that is randomly distributed among the populace. The development of political interest has been shown to be influenced by both socioeconomic and household factors (Shehata, 2016; Thorson et al. 2018; Bergström et al. 2019; Palmer & Toff, 2020). There is therefore reason to suspect that the fragmentation that has been reported in this thesis will disproportionately affect citizens who are already politically disenfranchised. In turn, this might lead them to further tune out from the political sphere and be poorly situated to advocate for themselves. I would think that such a development is undesirable no matter the normative view of democracy we adhere to. Thus, in such a media environment, increasingly characterized by "heterogenous socialization" of news habits (Aalberg et. 2013:299), scholars should focus on how the less interested can retain a pathway into engagement with the news.

7.3 Limitations and directions for future research

Nearing the end of this thesis, it is worthwhile to reflect on the potential shortcomings of this study and where other scholars can pick up to further contribute – and potentially improve the findings.

To begin with, an obvious limitation of this study is the data and method used. It is a well-established finding that survey respondents tend to overestimate their news consumption (Prior, 2009) and we should expect that this is the case in this study as well. Of greater importance, however, is the fact that younger people and people with lower political interest is underrepresented in the SOM-surveys, especially in recent years (Falk et al. 2021). This is of course, a problem for the generalizability of the findings. Still, if politically uninterested young people are less likely to respond to the surveys, the greater importance of political interest on news consumption among younger people found in this study might actually be understated.

Another shortcoming in this study is the fact that it has only investigated one specific country, namely Sweden. While the developments in the Swedish media system does show patterns like that of other

post-industrial western democracies (Prior, 2007; Strömbäck et al. 2013), caution should still be made before generalizing these findings beyond the Swedish case. Ideally, the research field would greatly benefit from more comparative studies looking at the relationship between individual level motivations and demographic factors. Hopefully this study has also displayed the need for longitudinal studies of the matter. Of certain importance is the need highlighted by Kalogeropoulos & Toff (2020) to move beyond western democracies and investigate conditional effects of generational belonging and political interest on news consumption in countries with traditionally weaker press freedoms.

As previously discussed, (see chapter 5) by treating political interest as a continuous variable, the study has an obvious weakness since it would be most correct to treat it as an ordinal one. While this does produce some issues - most importantly, we are missing a lot of information by treating this as a continuous scale - I would argue that this does not pose such big validity issues that the findings are irrelevant. The direction of the effect of political interest should not be different when treating it as an ordinal variable (see Strömbäck et al. 2013). Additionally, this operationalization was born out of necessity since the aim of this study was to investigate whether the effect of political interest on news consumption differed between demographics. This can only be done calculating marginal effects which requires a continuous variable. In short, what we are mostly missing out on when treating political interest as a continuous variable is nuance, but not validity. There is therefore great opportunity for future research to critically scrutinize and/or substantiate the findings in this thesis by utilizing other operationalizations of individual level motivators.

On the subject of measurements, another shortcoming of this thesis is the fact that it has not directly measured civic duty norms. Instead, this study builds on arguments made by previous research and theories on generational civic duty norms (Bennett, 2008; Dalton, 2008; Thorson, 2015). The results that political interest does seem to be more important for younger people and generations support the argument that political participation and news consumption is increasingly viewed as a personal choice rather than a duty. But this is only get us so far, and without controlling what citizenship norms people actually subscribe to, we can't say anything for certain. Future research should incorporate measures that better capture these theorized changes in citizenship norms and how they relate to news consumption (for an example of operationalizing citizenship norms, see Ohme, 2019).

The generational conceptualization used in this thesis might also not be ideal. Since the concept of socially constructed generations builds on individuals shared spatial and temporal location (Mannheim, 1952) the generational conceptualization created by Zukin et al. (2006) in the US context might not perfectly translate to the Swedish one. Furthermore, the generational distinction used in this study does not stem from a theoretical framework in which media is a central part. Future studies should therefore explore different conceptualizations of generations. Perhaps the findings in this thesis regarding the age variable can be a fruitful stepping-stone in future conceptualizations of specific generations.

Another avenue of future research is methodological. While this study set out to test both age and generational effect over time, the method used cannot untangle the independent effect of these two factors since they are closely connected to each other. To fully investigate the independent effect of age and generation, panel studies and/or age-period-cohort (APC) models should be a beneficial avenue for more sophisticated analysis in the future.

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Data source:

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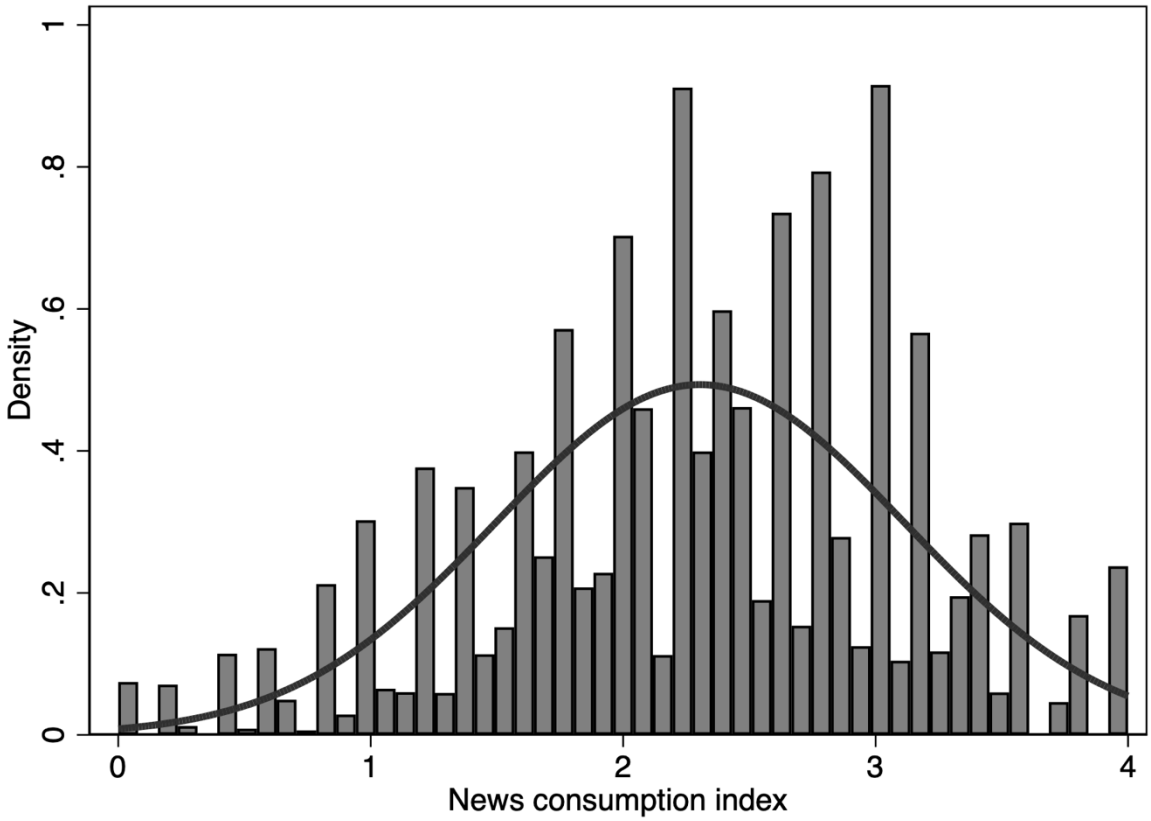
Appendix 1

Descriptive statistics

Variable	N	Mean	Std. Dev.	Min	Max
Legacy news consumption index (additive index, standardized values. 0 - no news consumption, 4 - all media types daily. Consists of: Morning paper print/online + Tabloids print/online + TV news print/online + Radio news print/online)	141221	2.305	.809	0	4
Online news index (additive index, standardized values. 0 – no news consumption, 4 - all media types daily – consists of: Public service TV online, Radio online, Tabloids online, Morning paper online.	56641	1.243	.978	0	4
News consumption measures (all values except tabloids: 0 – never, 5 – daily)					
Morning paper (print/online)	139879	3.465	1.706	0	5
Tabloids (print/online, standardized values)	140239	.495	.348	0	1
Tabloids online (1986-2013, standardized values)	46318	.33	.368	0	1
Tabloids online (2014 – 2019, standardized values)	56010	.453	.397	0	1
Radio news (broadcast / online)	140691	2.01	1.909	0	5
Radio online	48631	1.081	1.493	0	5
TV news	140713	3.644	1.474	0	5
Public service TV	140329	3.232	1.686	0	5
Public service TV online	48634	1.459	1.701	0	5
Commercial TV news (TV 4 Nyheterna)	132302	2.534	1.696	0	5
News in social media	48662	2.24	2.073	0	5
Independent variables					
Political interest	139404	1.632	.807	0	3
Age	130118	47.301	16.689	16	75
Generation	141541	1.329	1.089	0	3
Education	136223	2.13	.739	1	3
Gender (0 = female, 1 = male)	141413	.481	.5	0	1
Time (0= 1986, 33=2019)	141665	22.298	9.138	0	33

Appendix 2

Histogram of the legacy news consumption index



Appendix 3.

Two-way interaction plots. All interaction plots are based on the multilevel regression in table 1. All other variables kept as observed.

Figure A3.1. *Two-way interaction: political interest x time*

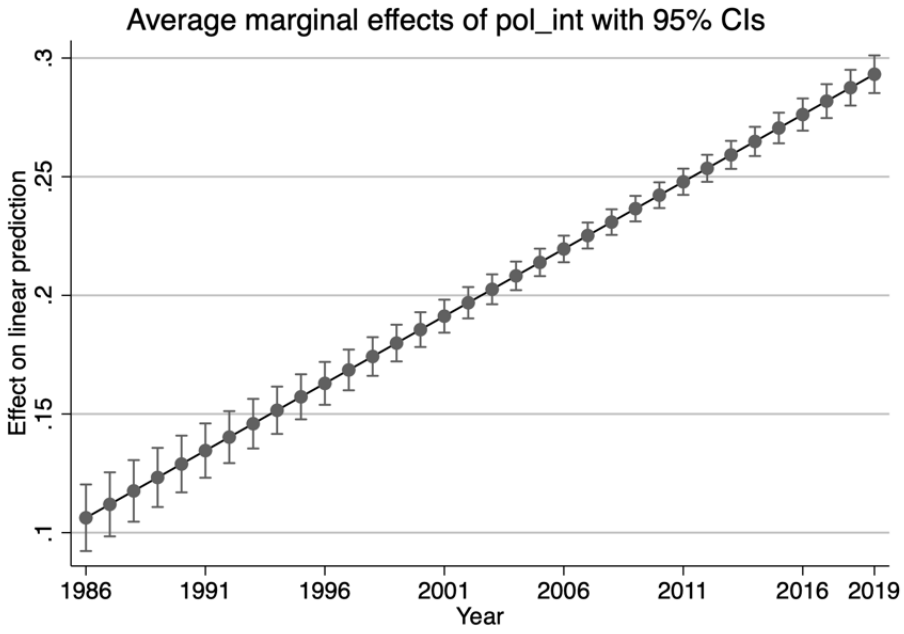


Figure A3.2. *Two-way interaction: age x time*

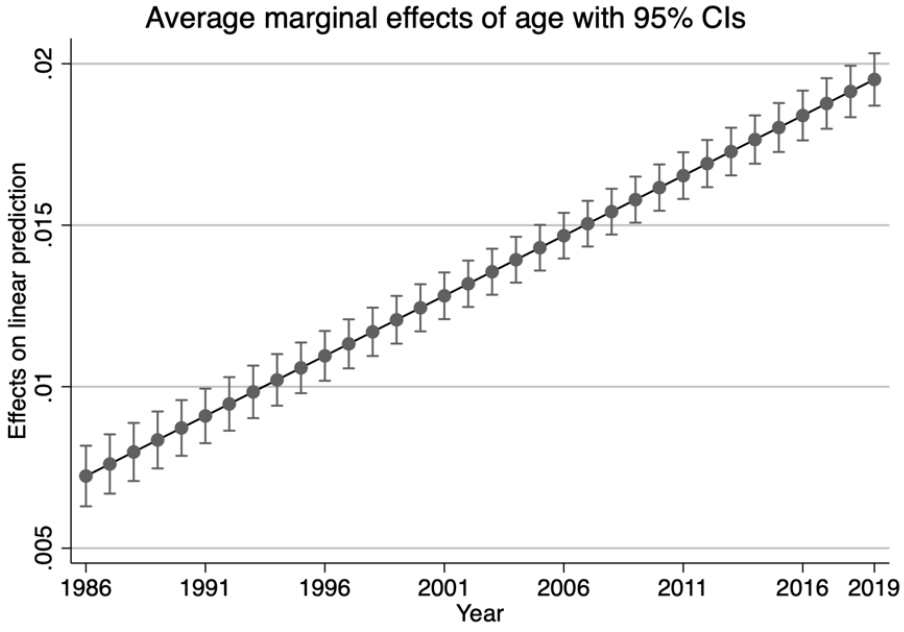
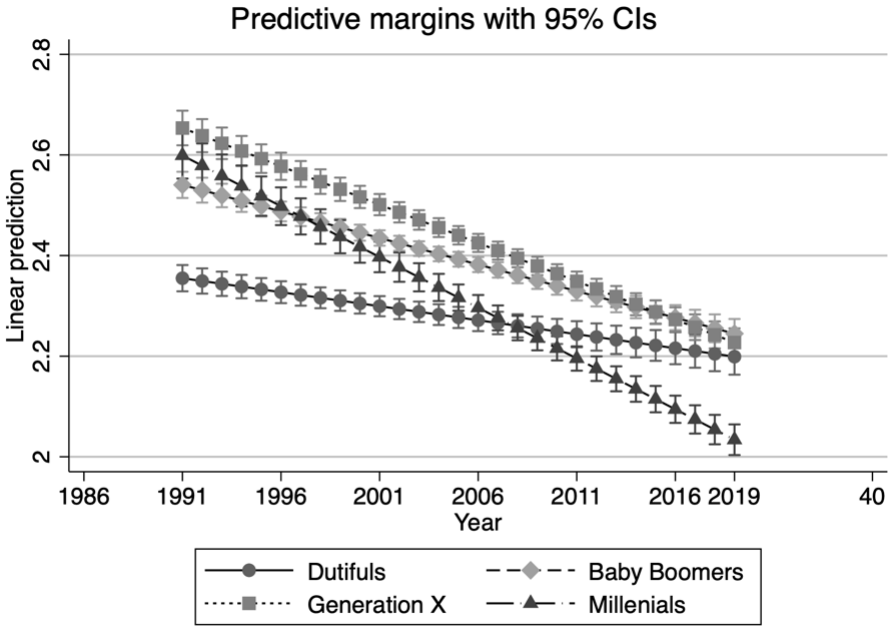


Figure A3.3. *Two-way interaction: generation x time*



Appendix 4.

Three-way interaction tables. Multilevel (mixed) regression, unstandardized regression coeff.

	Legacy news consumption index (range: 0-4)	
	Model 1 (Age)	Model 2 (Generation)
Political interest	0.143***(0.019)	0.155***(0.012)
Age (16-75)	0.005***(0.001)	0.015***(0.000)
Time (0-33, 0=1986)	-0.041***(0.002)	-0.010***(0.001)
Education (ref: low)		
Medium	0.125***(0.006)	0.114***(0.006)
High	0.135***(0.006)	0.122***(0.006)
Gender (ref: female)		
Male	0.054***(0.004)	0.053***(0.004)
Generation (ref: Dutifuls)		
Baby Boomers		0.251***(0.033)
Generation X		0.393***(0.038)
Millennials		0.413***(0.046)
Interactions		
Political interest x age	-0.000(0.000)	
Political interest x time	0.005***(0.001)	0.003***(0.001)
Age x time	0.000***(0.000)	
Political interest x age x time	-0.000(0.000)	
Generation x political interest		
(ref: Dutifuls x political interest)		
Baby Boomers x political interest		-0.030(0.017)
Generation X x political interest		-0.051*(0.020)
Millennials x political interest		-0.095***(0.026)
Generation x time (ref: dutifuls x time)		
Baby Boomers x time		-0.008***(0.002)
Generation X x time		-0.014***(0.002)
Millennials x time		-0.020***(0.002)
Generation x political interest x time		
(ref: Dutifuls x political interest x time)		
Baby Boomers x political interest x time		0.002*(0.001)
Generation X x political interest x time		0.003***(0.001)
Millennials x political interest x time		0.005***(0.001)
Intercept	1.923***(0.038)	1.305***(0.034)
Random Effects parameters		
Residual variance	0.522	0.522
Time variance	0.002	0.001
Observations (level 1)	123 409	123 409
Years (level 2)	33	33
R^2 level 1	0.190	0.193
R^2 level 2	0.347	0.601

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Standard errors in parentheses. Unstandardized b coefficients. P-values are computed with Wald statistics approximation (treating t as Wald z). R^2 calculated using Snijders/Bosker's multilevel R-squared estimation. Legacy news consumption index 0-4 (0= no outlets ever 4=all outlets daily) consists of: Morning newspapers print/online (0-1) + Tabloids print/online (0-1) + TV news (0-1) + Radio news (0-1). Education: Low (primary education), Medium (more than primary but not university/college), High (university/college).

Appendix 5.

Comparisons of marginal effect of political interest for different generations at high and low values of time (with Bonferroni correction).

Comparison no.	Comparison	Contrast dy/dx	Delta-method standard error	Bonferroni z	Bonferroni P>|z|	Bonferroni [95% conf.	interval]
1	Dutifuls/Time: Low vs Dutifuls/Time: High	-0.050	0.012	-4.23	0.001	-0.086	-0.013
2	Baby Boomers/Time: High vs Dutifuls/Time: High	0.035	0.013	2.78	0.153	-0.004	0.074
3	Baby Boomers/Time: Low Vs. Dutifuls/Time: High	-0.053	0.013	-4.10	0.001	-0.093	-0.012
4	Generation X/Time: High Vs. Dutifuls/Time: High	0.052	0.014	3.75	0.005	0.009	0.095
5	Generation X/Time: Low Vs. Dutifuls/Time: High	-0.058	0.014	-4.07	0.001	-0.102	-0.013
6	Millennials/Time: High Vs. Dutifuls/Time: High	0.053	0.013	4.15	0.001	0.013	0.093
7	Millennials/Time: Low Vs. Dutifuls/Time: High	-0.082	0.016	-5.00	0.000	-0.134	-0.031
8	Baby Boomers/Time: High Vs. Dutifuls/Time: Low	0.085	0.009	9.54	0.000	0.057	0.112
9	Baby Boomers/Time: Low Vs. Dutifuls/Time: Low	-0.003	0.009	-0.32	1.000	-0.031	0.026
10	Generation X/Time: High Vs. Dutifuls/Time: Low	0.101	0.010	9.67	0.000	0.068	0.134
11	Generation X/Time: Low Vs. Dutifuls/Time: Low	-0.008	0.012	-0.73	1.000	-0.042	0.026
12	Millennials/Time:High Vs. Dutifuls/Time: Low	0.103	0.009	11.29	0.000	0.074	0.131

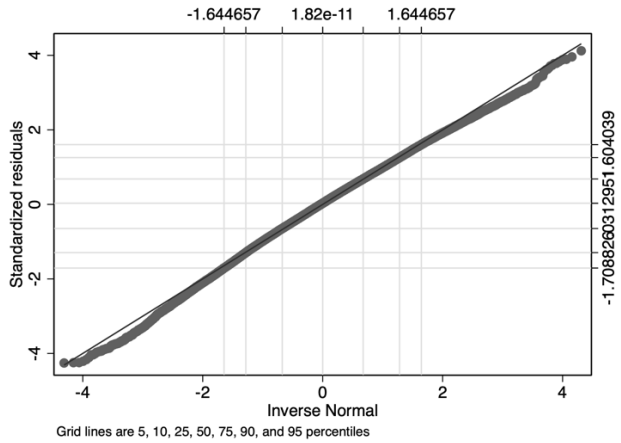
13	Millennials/Time:Low Vs. Dutifuls/Time: Low	-0.033	0.0139	-2.38	0.484	-0.076	0.010
14	Baby Boomers/Time:Low Vs. Baby Boomers/Time: High	-0.088	0.009	-9.68	0.000	-0.116	-0.059
15	Generation X/Time: High Vs. Baby Boomers/Time: High	0.017	0.010	1.63	1.000	-0.015	0.049
16	Generation X/Time: Low Vs. Baby Boomers/Time: High	-0.093	0.011	-8.63	0.000	-0.126	-0.059
17	Millennials/Time: High Vs. Baby Boomers/Time: High	0.018	0.009	2.04	1.000	-0.009	0.046
18	Millennials/Time: Low Vs. Baby Boomers/Time: High	-0.118	0.014	-8.59	0.000	-0.161	-0.075
19	Generation X/Time: High Vs. Baby Boomers/Time: Low	0.104	0.010	9.91	0.000	0.071	0.137
20	Generation X/Time: Low Vs. Baby Boomers/Time: Low	-0.005	0.011	-0.46	1.000	-0.039	0.029
21	Millennials/Time: High Vs. Baby Boomers/Time: Low	0.106	0.009	11.58	0.000	0.077	0.134
22	Millennials/Time: Low Vs. Baby Boomers/Time: Low	-0.030	0.014	-2.17	0.841	-0.073	0.013
23	Generation X/Time: Low Vs. Generation X/Time: High	-0.109	0.012	-8.94	0.000	-0.147	-0.071
24	Millennials/Time: High Vs. Generation X/Time: High	0.001	0.010	0.13	1.000	-0.031	0.034

25	Millennials/Time: Low Vs. Generation X/Time: High	-0.134	0.015	-9.09	0.000	-0.180	-0.088
26	Millennials/ Time: High Vs. Generation X/Time: Low	0.111	0.011	10.17	0.000	0.077	0.145
27	Millennials/Time: Low Vs. Generation X/Time: Low	-0.025	0.015	-1.66	1.000	-0.072	0.022
28	Millennial/Time: Low Vs. Millennials/Time: High	-0.136	0.015	-8.96	0.000	-0.183	-0.088

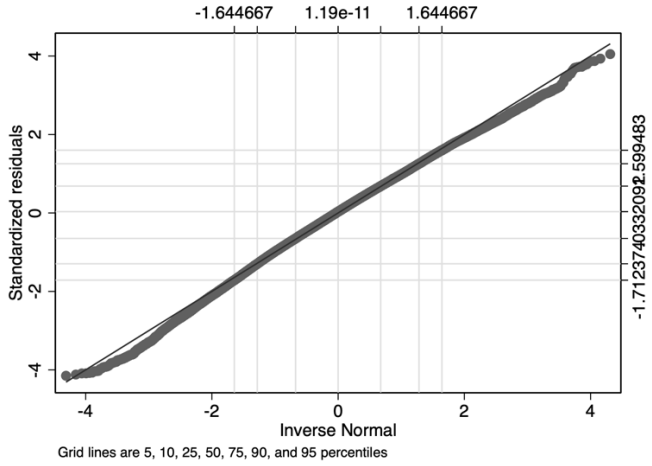
Appendix 6

Plotting of residuals for model without interaction and three-way interaction models (residuals should follow the diagonal line)

Main model (no interaction). Based on model 5 in table 1



Three-way interaction model (age x time x political interest). Based on model 1 in appendix 4.



Three-way interaction model (generation x time x political interest). Based on model 2 in appendix 4.

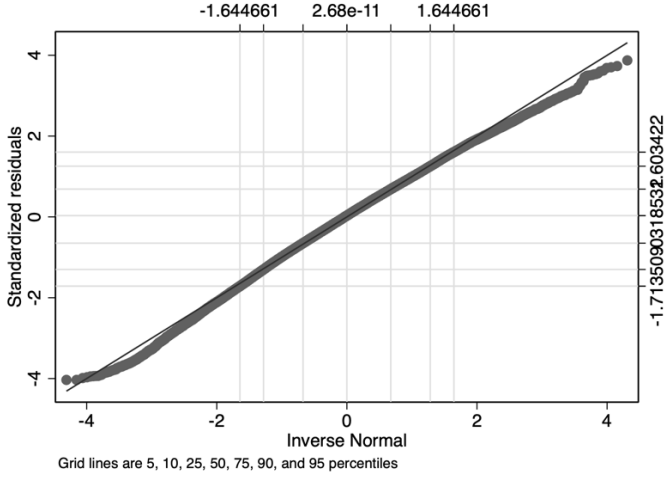


Table.
Interaction models between political interest and age on news consumption for different time periods. Ordinary least squares regression (Unstandardized Regression Coefficients).

	Legacy news consumption index (range: 0-4)						
	1986-1990	*1991-1995*	*1996-2000*	*2001-2005*	*2006-2010*	*2011-2015*	*2016-2019*
Political interest	0.198***(0.028)	0.176***(0.025)	0.196***(0.021)	0.211***(0.019)	0.266***(0.019)	0.293***(0.017)	0.313***(0.015)
Age (16-75)	0.006***(0.001)	0.005***(0.001)	0.011***(0.001)	0.014***(0.001)	0.018***(0.001)	0.019***(0.001)	0.022***(0.001)
Education (ref: low)							
Medium	0.0624**(0.019)	0.0709***(0.017)	0.0734***(0.015)	0.0827***(0.015)	0.148***(0.015)	0.179***(0.014)	0.182***(0.014)
High	0.020 (0.025)	0.051*(0.021)	0.050**(0.017)	0.062***(0.016)	0.165***(0.017)	0.189***(0.015)	0.213***(0.015)
Gender (ref: female)							
Male	0.045**(0.016)	0.045**(0.014)	0.068***(0.011)	0.067***(0.011)	0.070***(0.011)	0.070***(0.009)	0.032***(0.009)
Time	0.000 (0.005)	-0.009 (0.005)	0.022***(0.004)	-0.022***(0.004)	0.002 (0.004)	-0.020***(0.003)	-0.036***(0.004)
Interaction							
Political interest x age	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.001**(0.000)	-0.001**(0.000)	-0.001*(0.000)
Intercept	1.829***(0.050)	1.846***(0.057)	1.228***(0.065)	1.690***(0.073)	0.936***(0.090)	1.323***(0.092)	1.615***(0.126)
Observations	6038	8014	12797	15804	17618	27284	35854
Adjusted R^2	0.080	0.091	0.125	0.161	0.191	0.193	0.230

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Standard errors in parentheses. Unstandardized b coefficients. Legacy news consumption index 0-4 (0= no outlets ever 4=all outlets daily) consists of: Morning newspapers print/online (0-1) + Tabloids print/online (0-1) + TV news (0-1) + Radio news (0-1). Education: Low (primary education), Medium (more than primary but not university/college), High (university/college).

Appendix 7