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# SNS RESEARCH BRIEF

## Social Media and Political Polarization

**B**Y MANY MEASURES, Americans have become increasingly politically polarized in recent decades. Many authors attribute this trend, in part, to the rise of social media and the internet. However, what do we really know about the role of digital media in driving this trend? This report summarizes some of the latest research on digital media and, more specifically, the role of social media for political polarization. In addition, the author analyzes how the development of the political polarization is related to news consumption via internet and social media using data from American National Election Study.



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**SOCIAL MEDIA IS POLARIZED.** On Twitter, users are significantly more likely to follow and engage with those of the same political orientation. Facebook's algorithms partly influence the news feed, but it is mainly a product of what people choose to read and share with their friends. People tend to think that their friends agree with them even more than they really do.

**DIGITAL MEDIA CONSTITUTES A MINORITY OF TOTAL MEDIA CONSUMPTION.** Most Americans get their news from many different sources; tv, radio, print newspapers, and larger sites like Yahoo or CNN whose audiences are representative of the (internet-using) public at large.

**THE INCREASE IN POLITICAL POLARIZATION DOES NOT APPEAR TO BE DRIVEN BY SOCIAL MEDIA.** The usage of social media has increased primarily among young people, but political polarization is increasing mainly in the older generation. These findings argue against the hypothesis that social media is the main driver of increasing polarization.



**SNS RESEARCH BRIEF** The majority of academic research being conducted today is aimed towards publication in scientific journals. Accounts of academic research tend to be theoretical and highly-specialized. Yet much of the current research, especially when it is empirical and relevant for policy, is of interest for a larger audience. The objective of the SNS Research Brief series is to make this research accessible for decision-makers in politics, business and the public sector. Financial support has been granted from the Jan Wallander and Tom Hedelius Foundation. Responsibility for the analysis and the conclusions in the research briefs rests with the authors alone.



*Political polarization has increased in the last decades.*

By many measures, Americans have become increasingly politically polarized in recent decades.<sup>1</sup> In 1960, roughly 5 percent of Republicans and Democrats reported that they would “[feel] ‘displeased’ if their son or daughter married outside their political party;” by 2010, nearly 50 percent of Republicans and over 30 percent of Democrats “felt somewhat or very unhappy at the prospect of interparty marriage.”<sup>2</sup>

The relative favorability of party affiliates towards their own party has increased by over 50 percent from 1980 to 2015,<sup>3</sup> and the proportion of voters voting for the same party in both presidential and House elections has increased from 71 percent of the the reported voters in 1972 to 90 percent in 2012.<sup>4</sup>

Many authors attribute this trend, in part, to the rise of social media and the internet. Some argue that the internet may create echo chambers<sup>5</sup> in which individuals hear news only from like-minded sources, and that social media reinforce this trend as like-minded users share and reinforce one another’s opinions.<sup>6</sup>

Recent research has claimed that a single tech company could potentially determine the outcome of the next election.<sup>7</sup> A growing chorus calls for regulation to promote a plurality of voices, most notably in Europe but also in the U.S. and around the world.

Putting the evidence together, it seems clear that polarization is a real and serious phenomenon (see box on polarization in the U.S.). However, what do we really know about the role of digital media in driving this trend?

1 Both the appropriate definition of polarization and the extent of its increase are debated in the literature. See Abramowitz and Saunders (2008), Fiorina and Abrams (2008), Prior (2013), Lelkes (2016), and Gentzkow (2016a) for reviews.

2 Iyengar, Sood, and Lelkes (2012).

3 Gentzkow (2016a).

4 American National Election Study (2015).

5 An echo chamber is a description of a situation or a system where information, ideas, or beliefs are amplified or reinforced.

6 For further reading, see e.g., Sunstein (2001; 2009; 2017), Pariser (2011), Gabler (2016), Haidt (2016), and Remnick (2016).

7 Epstein and Robertson (2015).

## Polarization and Digital Media

There is some strong circumstantial evidence on the role of digital technologies in driving polarization.

By some measures, the increase in U.S. polarization really took off in the mid-1990s, the same period in which the internet became a mass phenomenon.<sup>8</sup>

Moreover, the content of the internet often seems to confirm our worst fears. There are political sites on both sides with significant readership that are far more extreme than anything that existed in traditional media. A look at any internet comment thread or message board reveals a level of vitriol and unabashed partisanship that one would never see in an old-fashioned letter to the editor or op-ed piece.

Finally, the earliest studies of how people sort themselves on the internet seem like smoking gun evidence of echo chambers. Early on, data on the consumption of internet news and opinion was limited, so researchers turned to something they could measure more easily: links. Looking at patterns of links among blogs, for example, showed two clear clusters, one liberal, and one conservative.<sup>9</sup>

This evidence seems to provide strong support for the internet-as-villain narrative. A more careful look at the data, however, suggests that this is likely overstated. There are at least three inconvenient facts.

### Digital Media Small Part of the News Diet

First, and most simply, digital news and information sources have been a smaller part of Americans’ news diets than many commentators imagine. A 2013 McKinsey report, for example, concluded that as of that year, all digital media sources—desktops, laptops, smartphones, and tablets included—accounted for only 8 percent of Americans’ total news consumption time. Television accounted for a far larger 41 percent and, perhaps surprisingly, good old-fashioned print newspapers accounted for 35 percent.

8 Gentzkow (2016a).

9 E.g., Adamic and Glance (2005).

*This trend is attributed to the rise of social media.*

## Political Polarization in the U.S.

Data show that most Americans do not self-identify with extreme ideologies or hold extreme views on issues such as abortion or redistribution. The distributions of views on issues are mostly single-peaked, and have remained relatively stable over time.

At the same time, views have become more correlated across issues, and between issues and party identification, meaning that it is more accurate now than in the past to describe Americans as divided into two clear camps. It is less likely to find people holding liberal views on some issues and conservative views on others, or to meet a liberal Republican or a conservative Democrat.

Furthermore, data show that politics has been increasingly personal. Those on the other side are less likely to be seen as well-meaning people who happen to hold different opinions or to weight conflicting goals differently. They are more likely to be seen as unintelligent and selfish, with views that may only be explained by extreme cluelessness or ulterior motives.

(Gentzkow, 2016a)

*Americans are increasingly divided into two clear political camps.*

The importance of digital media has increased since 2013, and we can expect the impact on the political landscape to increase in the future. But these facts make it hard to see how digital media (alone) could account for large trends in the attitudes and beliefs of the public at large over the last two decades.

### Echo Chambers are Overstated

Second, detailed studies of Americans' consumption online reveal that the echo chambers phenomenon has been largely overstated. In Gentzkow and Shapiro (2011), for example, my co-author and I measure online behavior using clickstream data from ComScore, and compare it to offline media consumption as measured in surveys. We find that most Americans do not have highly partisan news diets. Rather, the typical American gets his or her news mainly from large sites like Yahoo or CNN whose audiences are representative of the (internet-using) public at large.

Many people do go to extreme sites, of course, but those who do are overwhelmingly heavy internet users and also political junkies; they consume large amounts of information not only from partisan sources, but also from those in the center and even on the opposite side of the spectrum.

True echo chambers are remarkably rare. Someone who got news exclusively from foxnews.com or exclusively from nytimes.com—sites with strongly partisan audiences, but not on the extreme fringe by any stretch—

would have a more partisan news diet than 95 percent of the Americans.

Again, recent trends including the rise of social media may well have increased the extent of echo chambers to some extent. But at a minimum, we know that echo chambers were limited over most of the period in which polarization increased.

### Small Effects at the Aggregate Level

Finally, we have a number of careful studies that directly measure media effects on attitudes and voting. These studies provide strong support for the view that the internet is powerful, revealing large impacts at the individual level. But when we take account of the audiences involved, these almost always imply small effects at the aggregate level.

*Echo chambers have been rare and their importance has been overstated.*

## The Role of Social Media

Much of the evidence just discussed comes from a period in which the role of social media as a source of political news and information was still limited. Evidence on the effect of social media in recent years is still limited, but we have accumulated several valuable data points.

### The Facebook News Feed

A study using data on how U.S. Facebook users interact with socially shared news tests if filtering may place people in ideological echo



chambers or “filter bubbles.”<sup>10</sup> Filter bubbles are results of personalized searches when algorithms decide which results to show based on information about the user.

The authors begin with data on 10.1 million U.S. Facebook users who declare their political orientation. Roughly two thirds of friends (among those who declare some orientation) have the same political views. The authors test the filter bubble hypothesis by studying what articles get shared within a friendship network, which of these the Facebook algorithm chooses for the news feed, and which of these the user ultimately chooses to click on. These stages together induce substantial filtering, but the magnitude of filtering by the news feed algorithm itself is relatively small. The strongest effect comes from the individuals’ own filtering, i.e. which articles the user chooses to share with their friends.

*Facebook’s news filtering played a relatively small role.*

### **Your Friends Are Not What You Think They Are**

In a survey study on 2,504 Facebook users in early 2008, respondents were asked about their views on a wide range of political and social issues.<sup>11</sup> Respondents were also asked to predict their friends’ responses to the same questions. Not surprisingly, the results showed that friends tend to think alike: the probability of agreeing with a friend on a random question was 75 percent, significantly higher than the 63 percent we would see if friends were matched at random.

*Social media is ideologically more segregated than other channels.*

The striking finding, however, is that people think their friends agree with them even more than they really do: the rate at which respondents predict that their friends agree with them is 80 percent.

### **Political Junkies on Twitter**

Recent research studies patterns of information diffusion and follower links on Twitter. The authors focus on a sample of 2.2 million users who follow at least one U.S. House candidate in the 2012 election. They define users to be liber-

al if they follow only or mainly Democratic candidates, and conservative if they follow only or mainly Republican candidates. They measure all links among the users (defined as one following another), as well as a large sample of retweets of both posts by the House candidates and posts mentioning the candidates.

As we would expect, the authors find that users are significantly more likely to follow and engage with those of the same political orientation. Partly as a result, users are much more likely to be exposed to like-minded retweets.

### **Putting Social Media in Context**

A study on the browsing behavior of a sample of Internet Explorer users in 2013 analyzes how consumption of news and opinion articles via social media differs from consumption through other channels such as direct browsing, search, or news aggregators, and how social media affects overall patterns of ideological segregation.<sup>12</sup> The study is focused on a small subset of users (roughly 50,000) who read news and opinion articles regularly.

First, they find that opinion content accessed via social media is substantially more segregated ideologically than opinion content accessed via other channels. Second, while the opinion content people see through social media is on the whole less diverse, it actually includes more content from opposite extremes of the political spectrum than what they see through other channels. Finally, the net effect on peoples’ news and opinion diets is ultimately quite small. The share of news and opinion that people reach through social media was still quite small in 2013: only about 6 percent of the news and 10 percent of opinion.

There is no question that Facebook feeds and Twitter networks expose users to less ideologically cross-cutting content than they would see if they randomly sampled from what is available. This is true for all the reasons we would expect: people connect with those more likely to share their views, these users mainly share content they agree with, algorithmic selection like Facebook’s news feed may enhance the selection (though the data suggest only slightly), and

<sup>10</sup> Bakshy, Messing, and Adamic (2015).

<sup>11</sup> Goel, Mason, and Watts (2010).

<sup>12</sup> Flaxman, Goel, and Rao (2016).

what users actually choose to read is likely to tilt even further toward their own views. However, the findings in these studies together imply that the degree of ideological segregation in digital media probably remains lower than much of the popular discussion would suggest.

## Evidence from Demographics

Together with two co-authors I have studied how trends in political polarization relate to respondents' propensities to obtain news or information online or from social media using survey data from the American National Election Study (ANES).<sup>13</sup>

### Social Media Usage

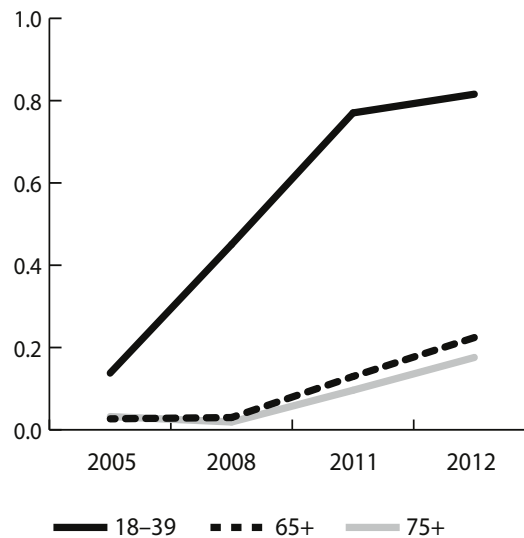
We divide respondents according to demographics that predict social media use. The main predictor we focus on is age. Internet and social media usage rates are far higher among the young than the old. Less than 20 percent of those aged 75 years and older use social media in 2012, as compared to 80 percent of those aged 18–39.

Because the ANES does not ask questions regarding social media usage, we supplement it with microdata from the Pew Research Center to plot trends in social media use from 2005 to 2012 in figure 1.<sup>14</sup> The elderly have substantially lower levels of social media usage across all years.

### Political Polarization

We create a polarization index using nine measures of political polarization that have been proposed in past work and that have increased in recent years.<sup>15</sup> Figure 2 shows the trend in the polarization index, which is normalized to have a value of one in 1996. By design, the index shows an overall growth in polarization, with the index growing by 0.18 index points between

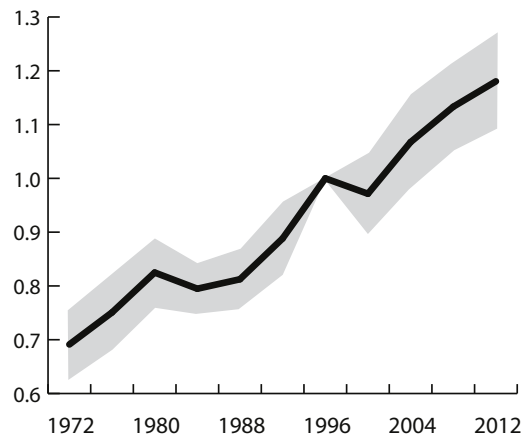
**Figure 1.** Trends in social media use by age group (shares).



*Younger people use social media more than older people.*

Notes: The figure shows the estimated proportion of the adult American population that uses social media by age group.

**Figure 2.** Political polarization index.



Notes: The shaded regions are 95 percent confidence intervals constructed using a nonparametric bootstrap with 100 replicates.

1996 and 2012. It is interesting to note that the index grew almost as quickly in the decades before the advent of the internet as after it, a pattern also exhibited by many of the individual measures.

Figure 3 shows trends in our polarization index by age group. Among respondents aged 75 and older, the increase is 0.38 index points between 1996 and 2012, whereas for adults under age 40, the increase is 0.05 index points. The difference in trends between age groups is

<sup>13</sup> Boxell, Gentzkow, and Shapiro (2017).

<sup>14</sup> Pew Research Center (2005; 2008; 2011; 2012).

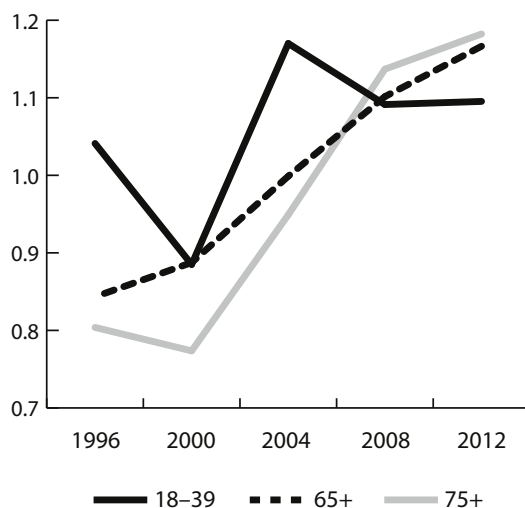
<sup>15</sup> We do not take a stand on whether polarization is increasing or on how polarization should be conceptualized. Both the appropriate definition of polarization and the extent of its increase are debated in the literature. See Abramowitz and Saunders (2008), Fiorina and Abrams (2008), Prior (2013), Lelkes (2016), and Gentzkow (2016a) for reviews.



statistically significant. Combining these results with those from figure 1, we see that the increase in polarization is largest among the groups least likely to use the internet and social media.

These findings argue against the hypothesis that the internet in general or social media in particular are the main drivers of increasing polarization. Any such explanation needs to account for the rapid increase in polarization among those with limited internet use and negligible use of social media. It is not impossible to construct such accounts. It may be that social media increases polarization among the young while some other factor increases it among the old. It may be that there are spillovers across demographic groups; young adults polarized

**Figure 3.** Trends in polarization index by age group.



*Polarization has increased most among those using social media the least.*

Notes: The figure shows the polarization index broken out for different age groups. For a given measure and group, the polarization value is normalized by the 1996 value of the polarization measure in the full sample. The index is then the average of these normalized polarization measures for each group.

through social media might in turn affect the views of older adults or might indirectly influence older adults through channels like the selection of politicians or the endogenous positioning of traditional media. Our evidence, nevertheless, rules out what seem like the most straightforward accounts linking the growth in polarization mainly to the internet.

*We should not be guided by the changes we imagine might be happening, rather than by those that actually are.*

## What will happen in the future?

Will social media deepen our divisions and lead us ever deeper into ideological echo chambers? The truth is, we don't yet know. The presented studies only scratch the surface of what is currently happening, and they can of course not predict how the situation will change in the future.

When we assess trends in society, we tend to get the direction right, but the magnitude and the timing wrong. Those who predicted in the 1950s that we would all be talking by video phone were correct, but it took about 50 years longer than they imagined.

In the same decade, many speculated that television might replace teachers in classrooms. They anticipated a possibility that remains very real, as online learning and digital content threaten significant parts of higher education, but the scale of this change is as yet nowhere close to the major transformation they imagined.

In the same way, both the growing polarization of the electorate and the role of digital media in driving it are real, but it is crucial to keep a close eye on the data so as not to be guided by the changes we imagine might be happening rather than by those that actually are happening.

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