Media, Polarization, and the 2016 Election

Matthew Gentzkow
Questions

1. Are Americans more polarized than ever before?
2. Is it the Internet’s fault?
3. Did fake news change the 2016 election outcome?
Trends in Polarization
Congress: Roll Call Votes

Party Polarization 1879-2013
Distance Between the Parties First Dimension

$r = 0.89$

Source: Poole & Rosenthal
Congress: Partisan Language

Source: Gentzkow et al. 2016
Voters: Prior literature

- Fiorina and Abrams (2008)
  - “The most direct evidence... shows **little or no evidence of increased polarization.**”
- Ansolabehere et al. (2006)
  - “The great divide across the American states is **not really much of a divide at all.**”
- Glaeser & Ward (2006)
  - The proposition that “America’s political divisions are increasing” is one of the “**myths of American political geography.**”
Where *don’t* we see evidence of increasing divisions?

- Views on individual issues
- Self-described ideology
- Party identification
- Residential segregation
Source: ANES (1972-2012), Pew (2013-15)
Proportion of Americans

Year
Republican Democrat
Lean Republican Lean Democrat
Independent
Political Party, 1952 – 2015

Where do we see evidence of increasing divisions?

- Correlation between issue views and party
- Correlation of views across issues
- Straight ticket voting
- Hostility / negative feeling toward those on the other side
Source: Five-Nation Civic Culture Study (Almond and Verba 1960); YouGov/Polimetrix poll (2008)
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SI Figure S1: Trends in political polarization

Notes: Each of the nine small plots shows the trend in a given polarization measure across time. The large plot shows the trend in the index, which is computed as the average across all polarization measures available in a given year after normalizing each measure to have a value of one in 1996. The shaded regions are 95 percent confidence intervals constructed using a nonparametric bootstrap with 100 replicates. See main text for definitions.
Index of 9 Polarization Measures

Notes: Each of the nine small plots shows the trend in a given polarization measure across time. The large plot shows the trend in the index, which is computed as the average across all polarization measures available in a given year after normalizing each measure to have a value of one in 1996. The shaded regions are 95 percent confidence intervals constructed using a nonparametric bootstrap with 100 replicates. See main text for definitions.
Bottom Line

- Polarization of politicians clearly increasing
- Over the last decade, increasing evidence that this is true for voters as well
- Shows up most clearly in *feelings* about the other side
Digital Media and Polarization
Birds-Eye View

- As of 2013, all digital media platforms accounted for 8% of total news consumption time (McKinsey)
- In 2016, 18% of Americans said they got news and information from social media “often” (Pew)
- In 2016, 14% of Americans said social media was their “most important” source of election news (Gentzkow & Allcott 2017)
“Most important” source of 2016 election news:

- Website: 14.8%
- Cable TV: 23.5%
- Network TV: 19.2%
- Local TV: 14.5%
- Radio: 6.2%
- Print: 8.0%
- Social: 13.8%

Source: Gentzkow & Allcott 2017
Are the groups getting more polarized those that use social media the most?
Notes: Panel A shows the weighted proportion of respondents who have internet access by age group. Panel B shows the proportion of respondents that saw campaign information online by age group. Panel C shows the estimated proportion of the adult American population that uses social media by age group according to the Pew Research Center (2005; 2008; 2011; 2012). See section 2.1 for details on each variable.
Polarization by age

Figure 2: Trends in polarization by demographic group

By age group

Index


0.8 1.0 1.2 1.4

18−39 65+ 75+

By predicted internet access


0.8 1.0 1.2 1.4 1.6

Top quartile Bottom quartile

Notes: Each plot shows the polarization index broken out for different demographic groups. The top plot shows the index by age group. The middle plot shows the index by quartile of predicted internet access. The bottom quartile includes values that are at or below the 25th percentile, while the top quartile includes values greater than the 75th percentile. The bottom plot shows the index by internet access. 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. See section 2 for definitions and section 3 for construction of predicted internet access.
Are people in online echo chambers?
Gentzkow & Shapiro (2011)

- How ideologically segregated is online news consumption?
- How does it compare to offline media?
- How does it compare to face-to-face interactions?
Measures

- Outlet’s *share conservative* is share of daily visitors who are conservative
- Individual’s *conservative exposure* is average share conservative on outlets they visit
- *Isolation Index* is difference in conservative exposure between average conservative and average liberal
Example

- Two outlets: nytimes.com and foxnews.com
- 12 conservatives
- 12 liberals
- Each consumer visits exactly one site
Case 1

Conservatives' conservative exposure = 1
Liberals' conservative exposure = 0
Isolation index = 1
Case 1

- Conservatives’ conservative exposure = 1
- Liberals’ conservative exposure = 0
- **Isolation index = 1**
Case 2

- Conservatives' conservative exposure = 0.5
- Liberals' conservative exposure = 0.5
- Isolation index = 0
Case 2

- Conservatives’ conservative exposure = .5
- Liberals’ conservative exposure = .5
- Isolation index = 0
Case 3

Conservatives' conservative exposure = \((2/3)^2 + (1/3)^2 = 5/9\)

Liberals' conservative exposure = \((2/3)^1 + (1/3)^2 = 4/9\)

Isolation index = \(1/9\)

[Diagram showing the distribution of conservative and liberal exposure for foxnews.com and nytimes.com]
- Conservatives’ conservative exposure = \( \left( \frac{2}{3} \right)^2 + \left( \frac{1}{3} \right)^2 = \frac{5}{9} \)
- Liberals’ conservative exposure = \( \left( \frac{2}{3} \right)^2 + \left( \frac{1}{3} \right)^2 = \frac{4}{9} \)
- Isolation index = \( \frac{1}{9} \)
Echo Chambers

Conservative Exposure

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<th>Isolation Index</th>
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<td></td>
<td>.1</td>
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<td></td>
<td>.15</td>
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</tbody>
</table>
Echo Chambers

Broadcast News
Cable
Local Newspapers
National Newspapers
Magazines
Internet
County
Zipcode
Voluntary Associations
Work
Neighborhood
Family
People You Trust
Political Discussants

Conservative Exposure

Isolation Index
Why?

1. Most consumption still concentrated in large centrist sites
2. Those who visit extreme sites are also heavy users who sample across the spectrum
Echo chambers in 2016

- Substantial segregation on Facebook, similar to face-to-face networks (Adamic et al. 2015)
- Still a small enough part of the news diet that overall picture has not changed dramatically (Flaxman et al. 2015)
Fake News
Sources

- Online audience data
- Fact checking websites
- New online Survey (late Nov, 2016)
Quantity of Fake News

Number of articles
- Pro–Clinton
- Pro–Trump

Number of Facebook shares (millions)
- Pro–Clinton
- Pro–Trump
Exposure to Fake News

- Method 1
  - Upper end of prior estimates: 1 share ↔ 20 reads
  - Implies ≈ 3 fake news stories per voter
Exposure to Fake News

- **Method 1**
  - Upper end of prior estimates: 1 share ↔ 20 reads
  - Implies \( \approx 3 \) fake news stories per voter

- **Method 2**
  - Across our list of fake news sites, 159m visits per month before election
  - Implies \( \approx 1.9 \) fake news stories per voter
Exposure to Fake News

- **Method 1**
  - Upper end of prior estimates: 1 share $\leftrightarrow$ 20 reads
  - Implies $\approx$ 3 fake news stories per voter

- **Method 2**
  - Across our list of fake news sites, 159m visits per month before election
  - Implies $\approx$ 1.9 fake news stories per voter

- **Method 3**
  - Survey: Test recall of fake and placebo stories
  - Implies $\approx$ 1.1 fake news story per voter
Summary

• Best guess: Average voter read and remembered on the order of 1-5 fake news stories

• Could this have changed the election outcome?
Conclusion
Conclusion

- Polarization is real
- Digital media are increasingly important, but probably not the driving force

Other explanations?
- Cable TV
- Politicians → voters
- Structural factors