The Internet, Political Polarization, and the 2016 Election

Levi Boxell (Stanford University)
This Talk

- Political Polarization
- 2016 US Presidential Election
- Solutions and the Future
Political Polarization
Mass Polarization

Issue Consistency: $|\sum_{k \in K} k_i|$
Mass Polarization

Partisan Sorting: $g(|P_i - I_i|)(|P_i| + 1)(|I_i| + 1)$
Mass Polarization

Straight Ticket Voting: House & Presidential elections
Mass Polarization

Partisan Affect: $A_i^D - A_i^R$ for $D$
Mass Polarization

Partisan Affect: (Iyengar et al. 2012)
Mass Polarization

Partisan Affect: (Iyengar and Westwood 2015)
Mass Polarization

Partisan Affect: (Iyengar and Westwood 2015)

Implicit Partisan Affect by Party

Partisan Affiliation
- Independent
- Republican
- Democrat

Implicit Racial Affect by Race

Race
- African American
- European American

Partisn D-Score

Race D-Score
Mass Polarization

Partisan Affect: (Iyengar and Westwood 2015)

<table>
<thead>
<tr>
<th>Applicant Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthur Wolfe</td>
</tr>
<tr>
<td><strong>Academic achievements</strong></td>
</tr>
<tr>
<td>4.0 GPA</td>
</tr>
<tr>
<td><strong>Community involvement</strong></td>
</tr>
<tr>
<td>Volunteer park ranger</td>
</tr>
<tr>
<td>Habitat for Humanity volunteer</td>
</tr>
<tr>
<td><strong>Extracurricular activities</strong></td>
</tr>
<tr>
<td>Bowling team</td>
</tr>
<tr>
<td>President of the Young Republicans</td>
</tr>
<tr>
<td>Honor Society</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Jeremy O’Neill</td>
</tr>
<tr>
<td><strong>Academic achievements</strong></td>
</tr>
<tr>
<td>4.0 GPA</td>
</tr>
<tr>
<td><strong>Community involvement</strong></td>
</tr>
<tr>
<td>Volunteer middle school math tutor</td>
</tr>
<tr>
<td>Red Cross volunteer</td>
</tr>
<tr>
<td><strong>Extracurricular activities</strong></td>
</tr>
<tr>
<td>President of the Young Democrats</td>
</tr>
<tr>
<td>Member of the marching band</td>
</tr>
<tr>
<td>Art Club</td>
</tr>
</tbody>
</table>

**TABLE 2** Full Set of Conditions and Treatments for Study 2

<table>
<thead>
<tr>
<th>Task</th>
<th>Identity</th>
<th>Name</th>
<th>Extracurricular Activity</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partisan</td>
<td>Republican</td>
<td>Arthur Wolfe</td>
<td>President of the Young Republicans</td>
<td>3.5 or 4.0</td>
</tr>
<tr>
<td></td>
<td>Democrat</td>
<td>Jeremy O’Neill</td>
<td>President of the Young Democrats</td>
<td>3.5 or 4.0</td>
</tr>
<tr>
<td>Racial</td>
<td>European American</td>
<td>Arthur Wolfe</td>
<td>President of the Future Investment Banker Club</td>
<td>3.5 or 4.0</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>Jamal Washington</td>
<td>President of the African American Student Association</td>
<td>3.5 or 4.0</td>
</tr>
</tbody>
</table>
### Mass Polarization

Partisan Affect: (Iyengar and Westwood 2015)

**Table 3 Favoritism in Candidate Selection by Group Membership**

<table>
<thead>
<tr>
<th>Participant's Partisanship</th>
<th>Partisan Selection Task</th>
<th></th>
<th>Republican Winner (N)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Democrat</td>
<td>79.2% (202)</td>
<td>20.8% (53)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lean Democrat</td>
<td>80.4% (45)</td>
<td>19.6% (11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td>57.9% (81)</td>
<td>42.1% (59)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lean Republican</td>
<td>30.8% (12)</td>
<td>69.2% (27)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Republican</td>
<td>20.0% (24)</td>
<td>80.0% (96)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Racial Selection Task**

<table>
<thead>
<tr>
<th>Participant's Race</th>
<th>European American Winner (N)</th>
<th>African American Winner (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>European American</td>
<td>44.2% (129)</td>
<td>55.8% (163)</td>
</tr>
<tr>
<td>African American</td>
<td>26.9% (32)</td>
<td>73.1% (87)</td>
</tr>
</tbody>
</table>
Mass Polarization

Issues:

- Violence
- Other extreme behaviors
- Norms about expressing dislike
- Focuses on the average American
Role of the Internet
Popular Narrative

#republic

DIVIDED DEMOCRACY IN THE AGE OF SOCIAL MEDIA

CASS R. SUNSTEIN

NEW YORK TIMES BESTSELLER

THE FILTER BUBBLE

“Well-timed... a powerful indictment.” — The Wall Street Journal

HOW THE NEW PERSONALIZED WEB IS CHANGING WHAT WE READ AND HOW WE THINK

ELI PARISER

“Vital.” — Time.com
Popular Narrative

Internet $\Rightarrow$ Information $\Rightarrow$ Beliefs $\Rightarrow$ Actions
Let $Y_i$ denote the outcome for individual $i$, and $T_i$ denote an indicator for whether individual $i$ has internet access.

1. $\mathbb{E}_i(Y_i| T_i = 1, T_{-i} = T_{-i}^{obs}) - \mathbb{E}_i(Y_i| T_i = 0, T_{-i} = T_{-i}^{obs})$

2. $\mathbb{E}_i(Y_i| T_i = 1, T_{-i} = 1) - \mathbb{E}_i(Y_i| T_i = 0, T_{-i} = 0)$

Retweet Segregation: Conover et al. (2011)
Internet ⇒ Information ⇒ Beliefs ⇒ Actions

What can we conclude from these studies about the internet’s impact on information?
What can we conclude from these studies about the internet’s impact on information?

Not much.
Impact on Information

Gentzkow and Shapiro (2011)
Impact on Information

Caveats:

• Data is a bit dated.
• Segregation != slant.
• Doesn’t fully capture substitute-complement or amount of political information consumed.
• Domain-level rather than article-level
Impact on Information

Flaxman et al. (2016)
Impact on Information

Halberstam and Knight (2016)
- Twitter political network isolation: 0.403
- Sample: Twitter users that follow at least one House candidate in 2012 (~5% of Twitter users)

Bakshy et al. (2015)
- Facebook friend isolation: around 0.5?
- Sample: Active Facebook users that report partisan affiliation (9% of FB users)

Gentzkow and Shapiro (2011)
- Offline political discussant isolation: 0.394
- Sample: Random sample, respondents list up to four people they discuss politics with.
### TABLE 5

<table>
<thead>
<tr>
<th>Medium</th>
<th>Conservative exposure</th>
<th>Liberals</th>
<th>Isolation Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>0.389</td>
<td>0.240</td>
<td>0.148</td>
</tr>
<tr>
<td>Local Newspapers</td>
<td>0.359</td>
<td>0.224</td>
<td>0.135</td>
</tr>
<tr>
<td>National Newspapers</td>
<td>0.404</td>
<td>0.270</td>
<td>0.134</td>
</tr>
<tr>
<td>Television</td>
<td>0.324</td>
<td>0.222</td>
<td>0.102</td>
</tr>
<tr>
<td>Internet Reported</td>
<td>0.346</td>
<td>0.251</td>
<td>0.096</td>
</tr>
<tr>
<td>Internet Observed</td>
<td>0.312</td>
<td>0.245</td>
<td>0.067</td>
</tr>
</tbody>
</table>

*Note: Indexes are calculated from survey data, except the last one (Internet Observed) which is calculated from navigation/behavioral data. The number of individuals (N) used to calculate these indexes varies. For offline media, the N is 1001; for reported visits to online news outlets, N=752; and for observed visits to online news outlets, N=376.*
Impact on Information

Internet $\rightarrow$ Information $\rightarrow$ Beliefs $\rightarrow$ Actions

No clear change in segregation levels.
Impact on Beliefs

Boxell et al. (2017)
Impact on Beliefs

Boxell et al. (2017)
Impact on Beliefs

Boxell et al. (2017)
Boxell et al. (2017)
Impact on Beliefs

Boxell et al. (2017)

Caveats:

- Spillovers
- Differential effects by age
- Average American—doesn’t focus on fringe groups.
Barbera (2015)

- Uses both Twitter and survey data from US, Germany, and Spain.
- Estimates ideal point of Twitter users overtime based on political follows.
- Panel design.
- Shows that Twitter (social media) users become more moderate overtime.
Impact on Beliefs

Lelkes et al. (2017)

- Natural experiment design.
- Uses variation in broadband access induced by state right-of-way legislation.
- Broadband access induces a moderate increase in polarization.
- Likely increases exposure to partisan information.
- LATE
Impact on Actions

Political Beliefs vs. Collective Action?
Impact on Actions

- Social media increases protest activity in Russia (Enikopolov et al. 2018)
- Social media increases hate crimes in Germany (Muller and Schwarz 2018)
- Internet reduces voter turnout in Germany, UK, and initially in Italy (Falck et al. 2014; Gavezza et al. 2018; Campante et al. 2013)
- But increases turnout in US and Malaysia (Larcinese and Miner 2017; Miner 2015)
No clear evidence in US.
Other Causes

Descriptive patterns:

- Increasing since 1980s
- Larger increases for older populations (Boxell et al. 2017)
- Larger increases in US than UK (Iyengar et al. 2012)
Cable TV

Duca and Saving (2017)
Median age of viewer.

CNN: 60
Fox News: 65
MSNBC: 65
Cable TV

UK:

- BBC1 + BBC2 > 25% of viewing time
- Ofcom: “News, in whatever form, must be reported with due accuracy and presented with due impartiality.”

US:

- ABC/CBS/NBC + Fox News/CNN/MSNBC
- Bias is ok.
FCC Fairness Doctrine

Berry and Sobieraj (2011); Hazlett and Sosa (1998)

Required broadcasters (Radio + TV) to provide equal treatment of competing views.

May have reduced coverage of political topics, and limited slant.

No longer enforced in 1987
Martin and Yurukoglu (2017)
Rise of Images

- Candidates are primarily seen, not heard (Bucy and Graby 2007).
- Candidate emotions more impactful than party or ideological information (Sullivan and Masters 1988).
- Visual information and emotions are processed on right side (Kensinger and Choi 2009).
Rise of Images

Boxell (2018)

Nonverbal slant towards Trump vs. Clinton

Website User Partisanship

2016 US Election
Popular Narratives

- Fake News
- Russian Intervention
- Cambridge Analytica
Evidence on Fake News

Allcott and Gentzkow (2017)

Percent of US Adult Population that Recall Seeing or that Believed Election News

- Big true
- Small true
- Fake
- Placebo

Recalled seeing
Recalled seeing and believed
Evidence on Fake News

Allcott and Gentzkow (2017)

Most Important Source of 2016 Election News

- 23.5% Cable TV
- 19.2% Network TV
- 14.8% Website
- 14.5% Local TV
- 13.8% Social media
- 8.0% Print
- 6.2% Radio
Evidence on Russian Intervention

- Russian Bots
- Trump Followers
- Clinton Followers

Number of accounts in millions:

- Russian Bots: 0
- Trump Followers: 50
- Clinton Followers: 10
Evidence on Russian Intervention

Facebook Spending Pre-Election

Spending in Millions

0 20 40 60 80

Trump+Clinton Campaigns
IRA
Evidence on Russian Intervention

IRA focused on U.S. racial issues in Facebook ad placements

No data for June 2017

SOURCE USA TODAY Network analysis of House Permanent Select Committee on Intelligence release of Facebook ads
George Petras/USA TODAY
Evidence on Russian Intervention

Total # of Russian Ads

Facebook Ads by Russian IRA

Number of Ads
0 500 1000 1500 2000 2500 3000 3500
Evidence on Internet

Boxell et al. (2018)
Evidence on Internet

Boxell et al. (2018)

Caveats:

- Spillovers
- Other time-varying factors
The Fix and the Future
Fake News Solutions

Allcott et al. (2018)

Fake News Sites

Facebook engagements (million)

Number of sites: 570

2015 2016 2017 2018
Fake News Solutions

Allcott et al. (2018)
Fake News Solutions

Allcott et al. (2018)
Solutions to Polarization

Munger (2016; 2017)

Effects on Non-Anonymous Subjects, Decaying Over Time

Ratio of Number of Incivility Tweets, Relative to Control

- Day 1
- Week 1
- Week 2
- Weeks 3/4

Weeks Post-Treatment, Non-Overlapping
Solutions to Polarization

Levendusky (2018a,b); Ahler and Sood (2018)

What does work?

- Priming American identity
- Fixing partisan misperceptions

What does not work?

- Partisan ambivalence
- Self-affirmation
Solutions to Polarization

What if we randomize media exposure?

- Could make things worse.
- See Jo (2018).
The Future

https://www.youtube.com/watch?v=cQ54GDm1eL0