

# ENERGY DEMOCRACY: A CASE FOR EMPIRICAL DATA

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**Sara K. Yeo**

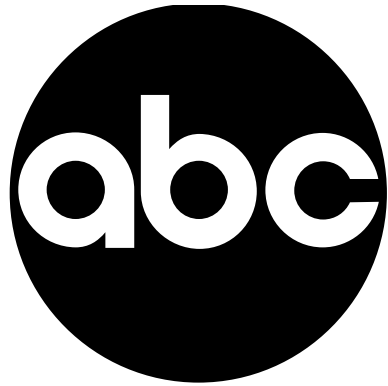
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July 12–14, 2017



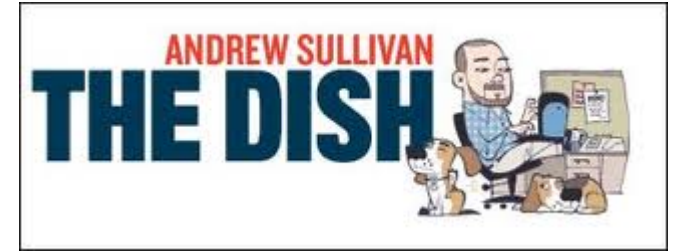
# A NEW MEDIA ENVIRONMENT



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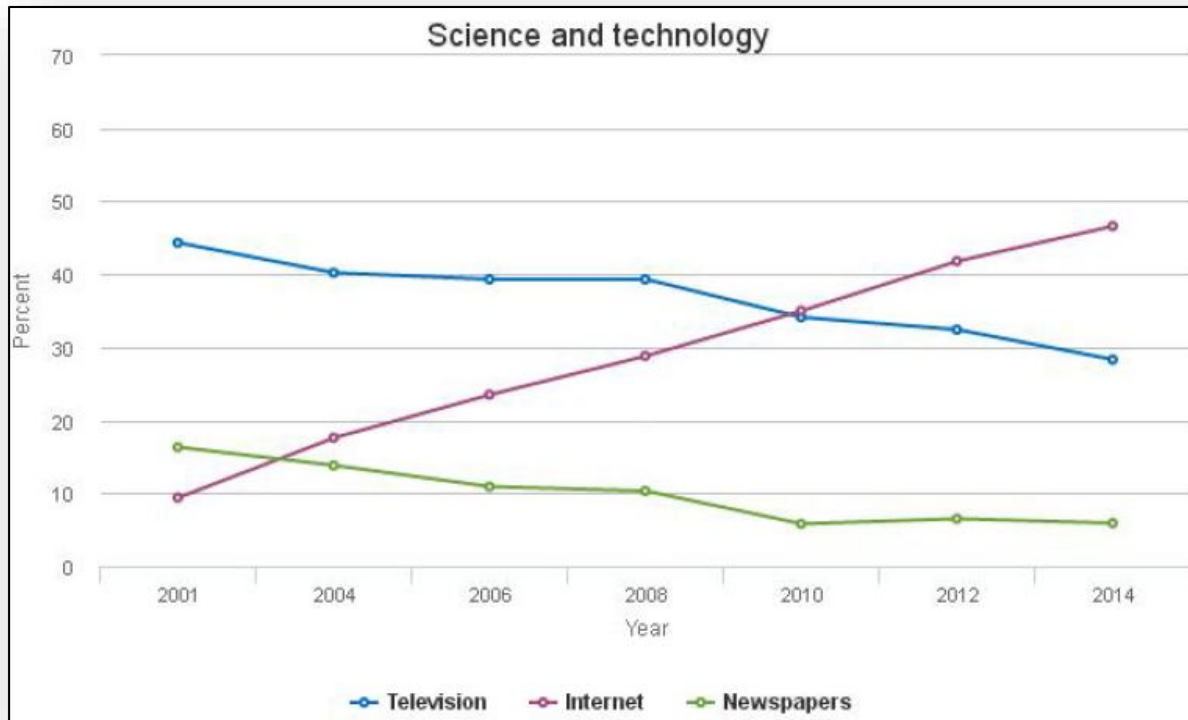
## Mother Jones





# TRENDS IN SCIENCE NEWS

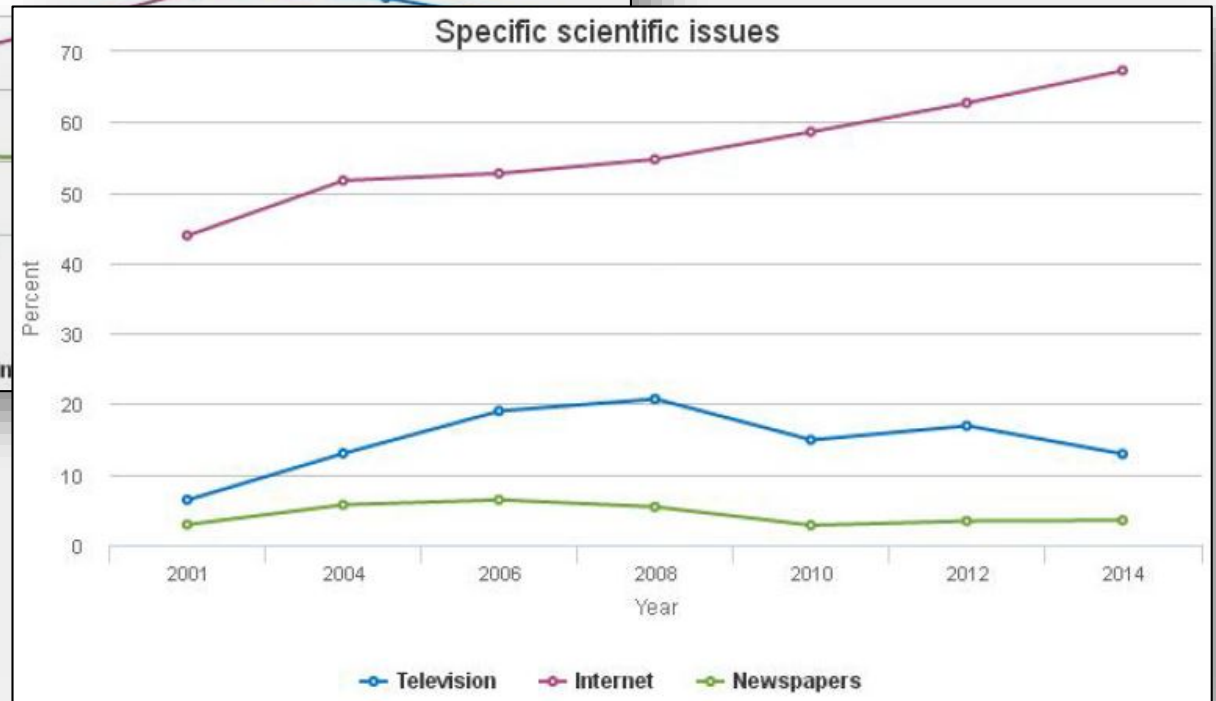
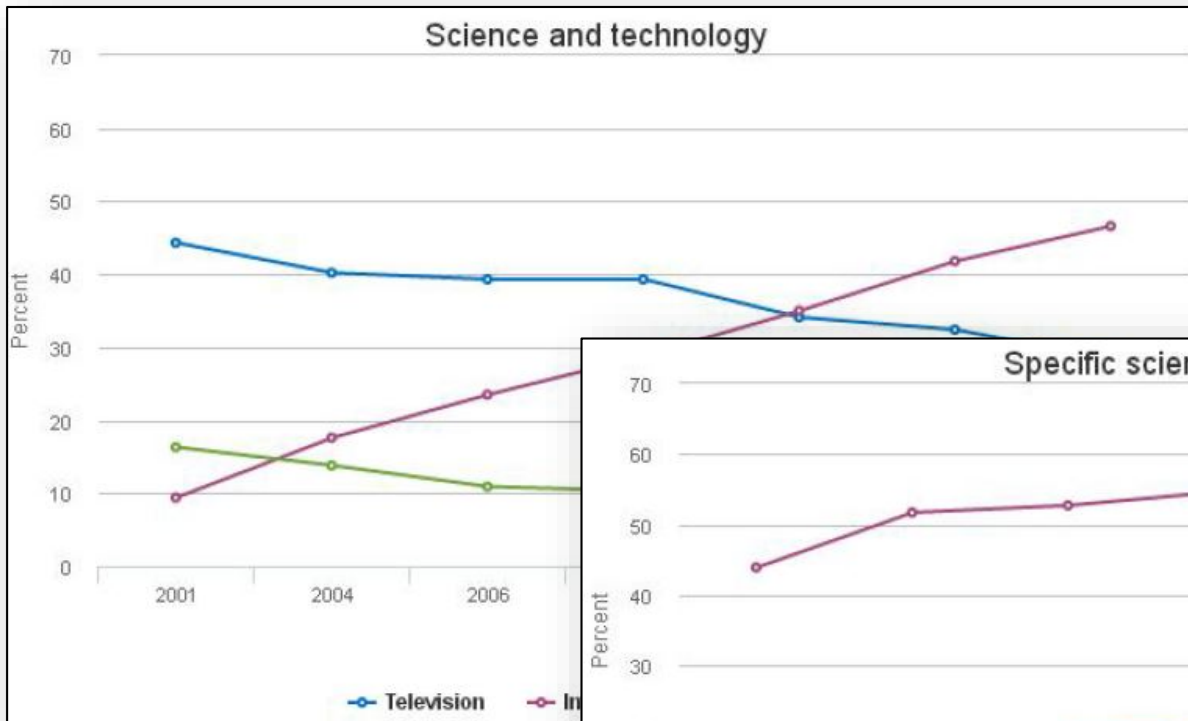
National Science Board. (2016). Science and Engineering Indicators 2016. Arlington, VA: National Science Foundation.





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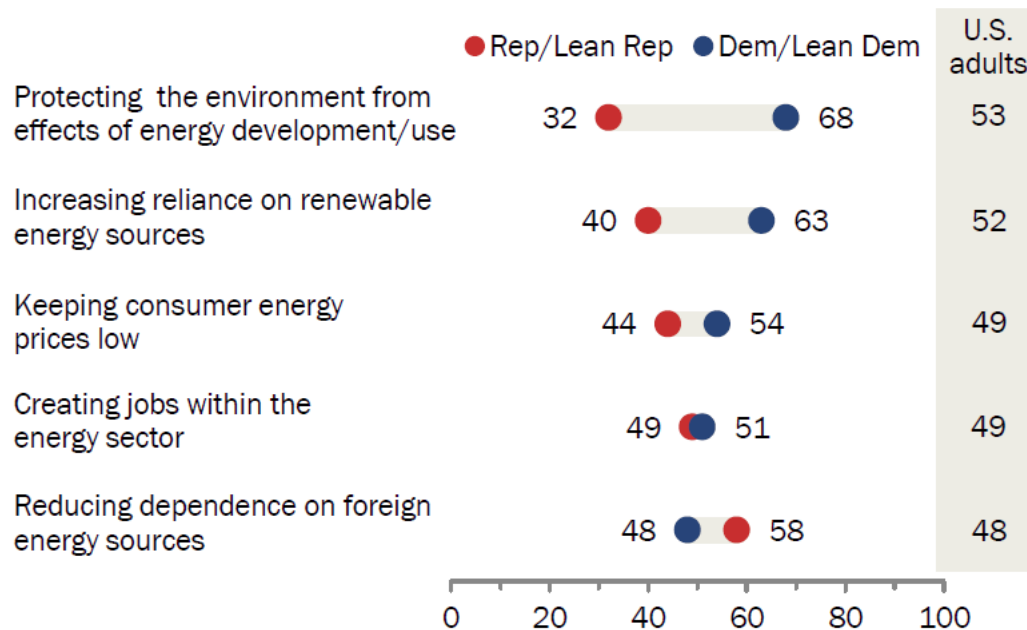


# OPINION GAPS & ENERGY

Pew Research Center. (2017). *Public Divides Over Environmental Regulation and Energy Policy.*

## Partisans agree on the importance of energy sector jobs, divided on prioritizing environmental effects of energy sources

*% of U.S. adults who rate each of the following as a top priority for America's energy policies*



# ENERGY DEMOCRACY

- Democratic, community-driven prosumers
- Decentralized
- Renewable, sustainable, local energy
- Social justice





THE  
UNIVERSITY  
OF UTAH

# WHY CARE WHAT PUBLICS THINK?

- Democratic, community-driven prosumers





# PUBLIC OPINION & SCIENCE

National Science Board. (2016). *Science and Engineering Indicators*. Arlington, VA: National Science Foundation  
Retrieved from <http://www.nsf.gov/statistics/seind12/start.htm>.



- PUS and scientific literacy
  - deficit model
- Limited knowledge and frameworks
  - 53% can define randomized experiments
  - 26% understand a scientific study

- Distractions...

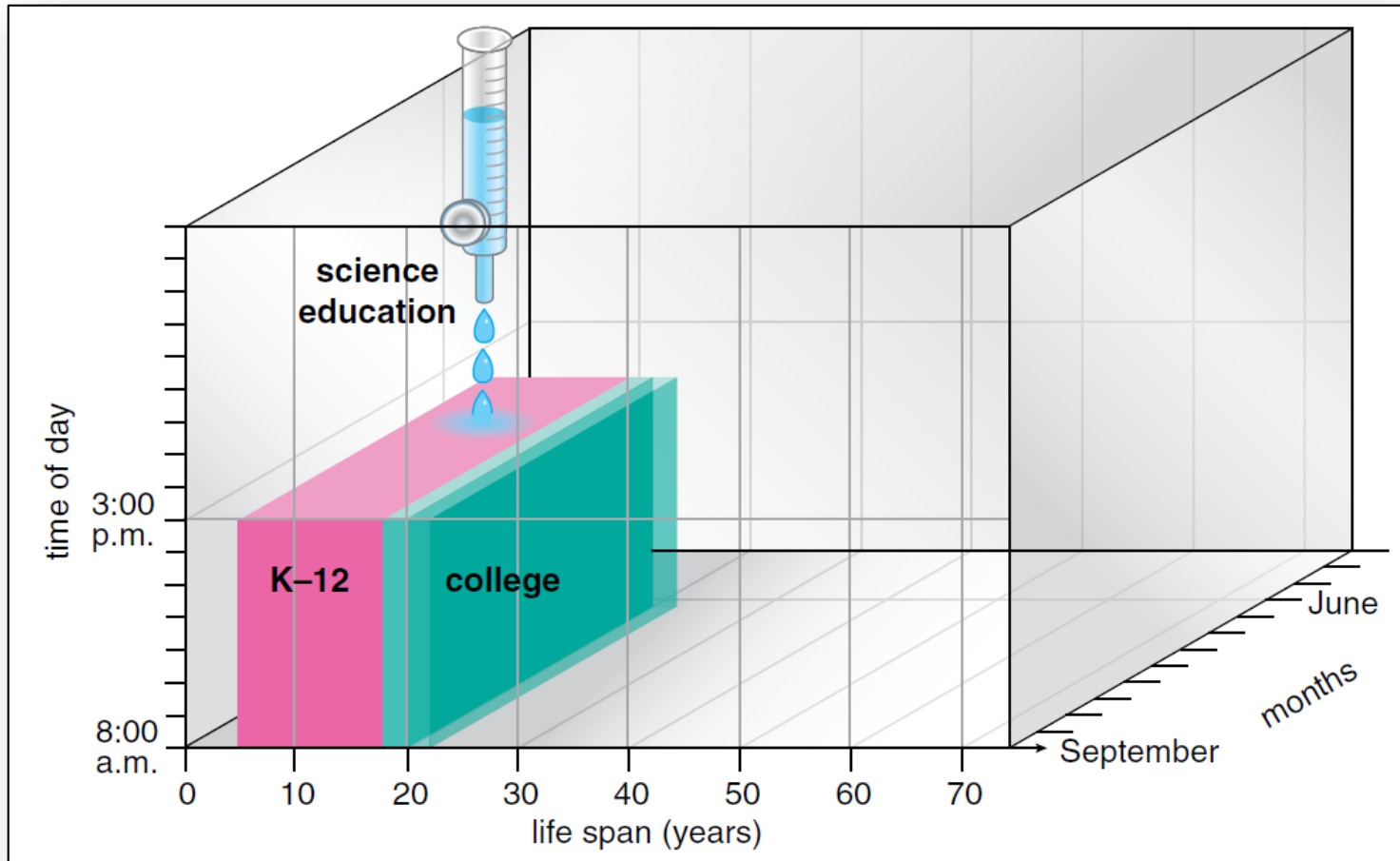
**The lure of rationality: Why does the deficit model persist in science communication?**

Simis, M. J., Madden, H., Cacciatore, M. A., & Yeo, S. K. (2016). The lure of rationality: Why does the deficit model persist in science communication? *Public Understanding of Science*, 25(4), 400–414.



# MOST PUBLICS LEARN SCIENCE OUTSIDE THE CLASSROOM

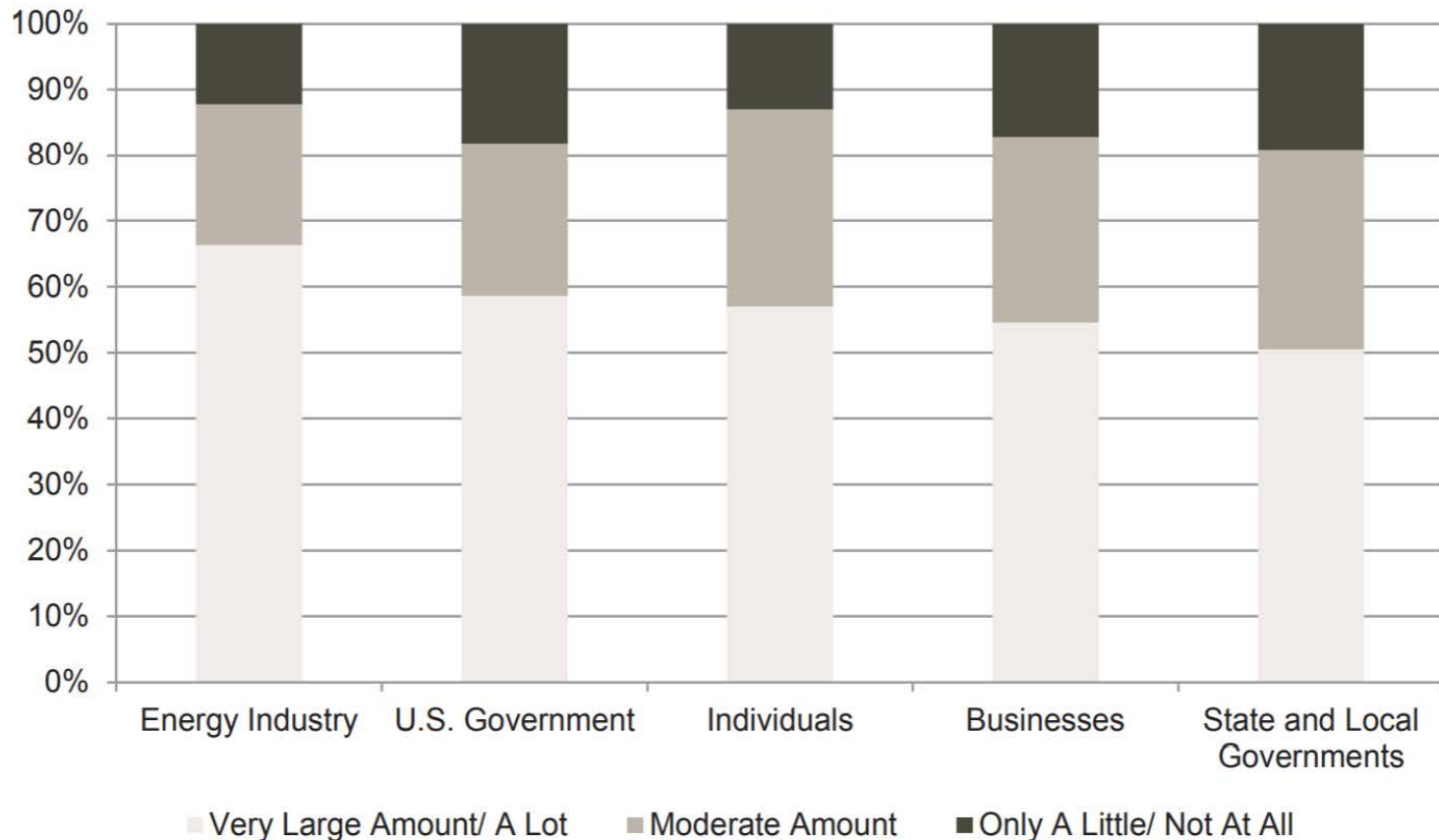
Falk, J. H., & Dierking, L. D. (2010). The 95 percent solution: School is not where most Americans learn their science. *American Scientist*, 98(6), 486-493.



# PUBLIC OPINION DATA

The Associated Press-NORC Center for Public Affairs Research. (2012). *Energy Issues: How the Public Understands and Acts*. Chicago: University of Chicago.

How much of the responsibility do you think each of the following groups share for increasing energy savings in the US?



Partisan amplification of risk: American perceptions of nuclear energy risk in the wake of the Fukushima Daiichi disaster

Sara K. Yeo<sup>a,\*1</sup>, Michael A. Cacciatore<sup>b,\*1</sup>, Dominique Brossard<sup>a</sup>, Dietram A. Scheufele<sup>a</sup>, Kristin Runge<sup>a</sup>, Leona Y. Su<sup>a</sup>, Jiyoun Kim<sup>a</sup>, Michael Xenos<sup>c</sup>, Elizabeth A. Corley<sup>d</sup>

Energy Policy 67 (2014) 727-736

Assessing socio-technical mindsets: Public deliberations on carbon capture and storage in the context of energy sources and climate change

Edna F. Einsiedel<sup>a,\*</sup>, Amanda D. Boyd<sup>b</sup>, Jennifer Medlock<sup>b</sup>, Peta Ashworth<sup>c</sup>

Energy Policy 53 (2013) 149-158

“Fracking” controversy and communication: Using national survey data to understand public perceptions of hydraulic fracturing

Hilary Boudet<sup>a,\*</sup>, Christopher Clarke<sup>b</sup>, Dylan Bugden<sup>a</sup>, Edward Maibach<sup>b</sup>, Connie Roser-Renouf<sup>b</sup>, Anthony Leiserowitz<sup>c</sup>

Energy Policy 65 (2014) 57-67

How do U.S. state residents form opinions about ‘fracking’ in social contexts? A multilevel analysis

Emily L. Howell<sup>a,\*</sup>, Nan Li<sup>b</sup>, Heather Akin<sup>c</sup>, Dietram A. Scheufele<sup>d,e</sup>, Michael A. Xenos<sup>d,f</sup>, Dominique Brossard<sup>c,d,e</sup>

Energy Policy 106 (2017) 345-355

Risk Perception of Nuclear Energy After Fukushima:  
Stability and Change in Public Opinion in  
Switzerland

Silje Kristiansen<sup>1</sup>, Heinz Bonfadelli<sup>1</sup> and  
Marko Kovic<sup>2</sup>

International Journal of Public Opinion Research (2016) edw021

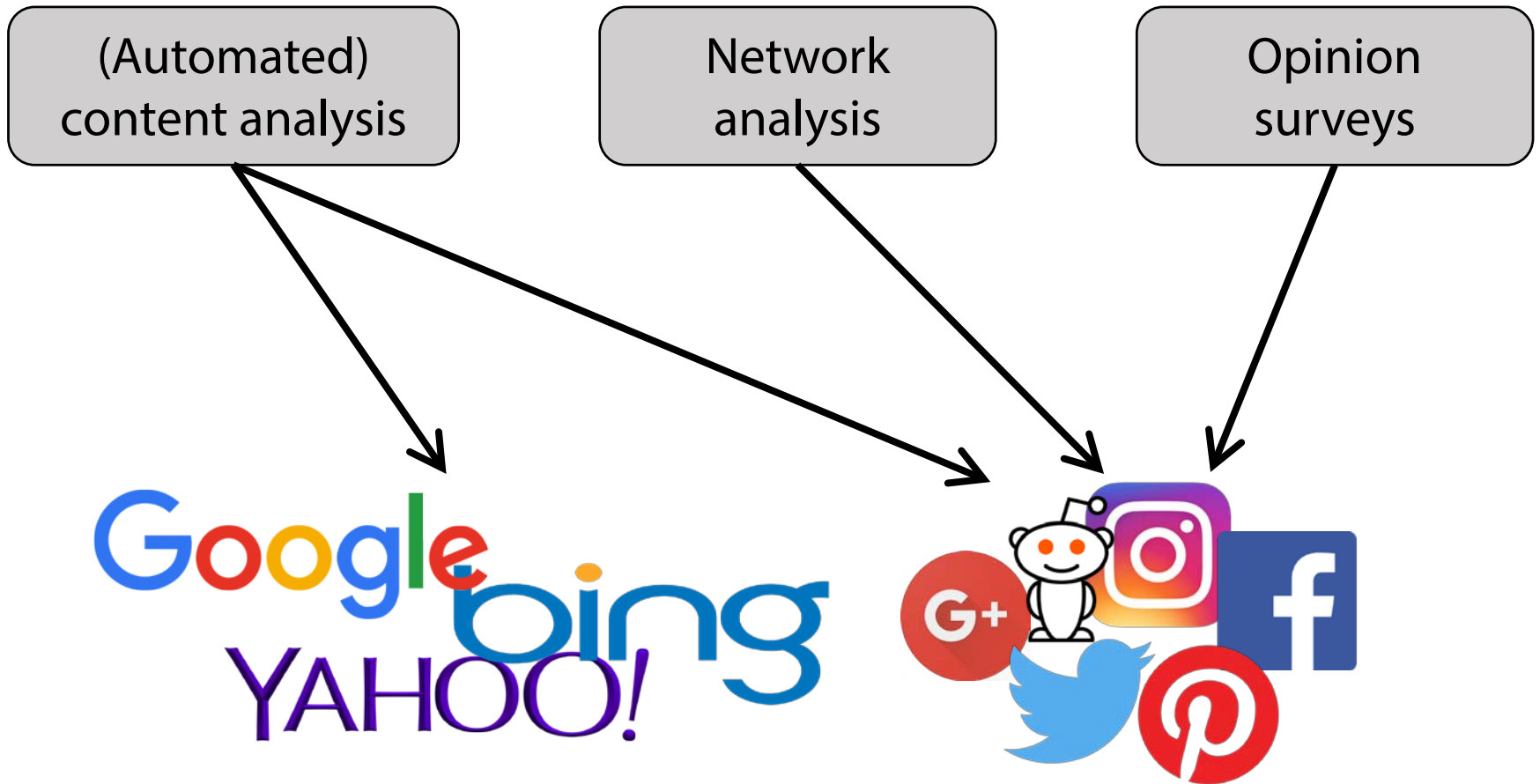


# THE CHALLENGES OF PUBLIC OPINION RESEARCH

- Representative sampling
  - large  $N$
  - probability sampling
- Limited resources
- Low response rates
  - mobile and online technologies



# OTHER DATA RESOURCES



# THE INTERSECTION OF RESEARCH & PRACTICE



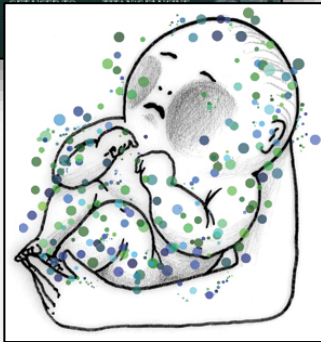
- involving collaborations
- theoretical and practical contributions
  
- Communication and engagement
  - between stakeholders
  - evaluations



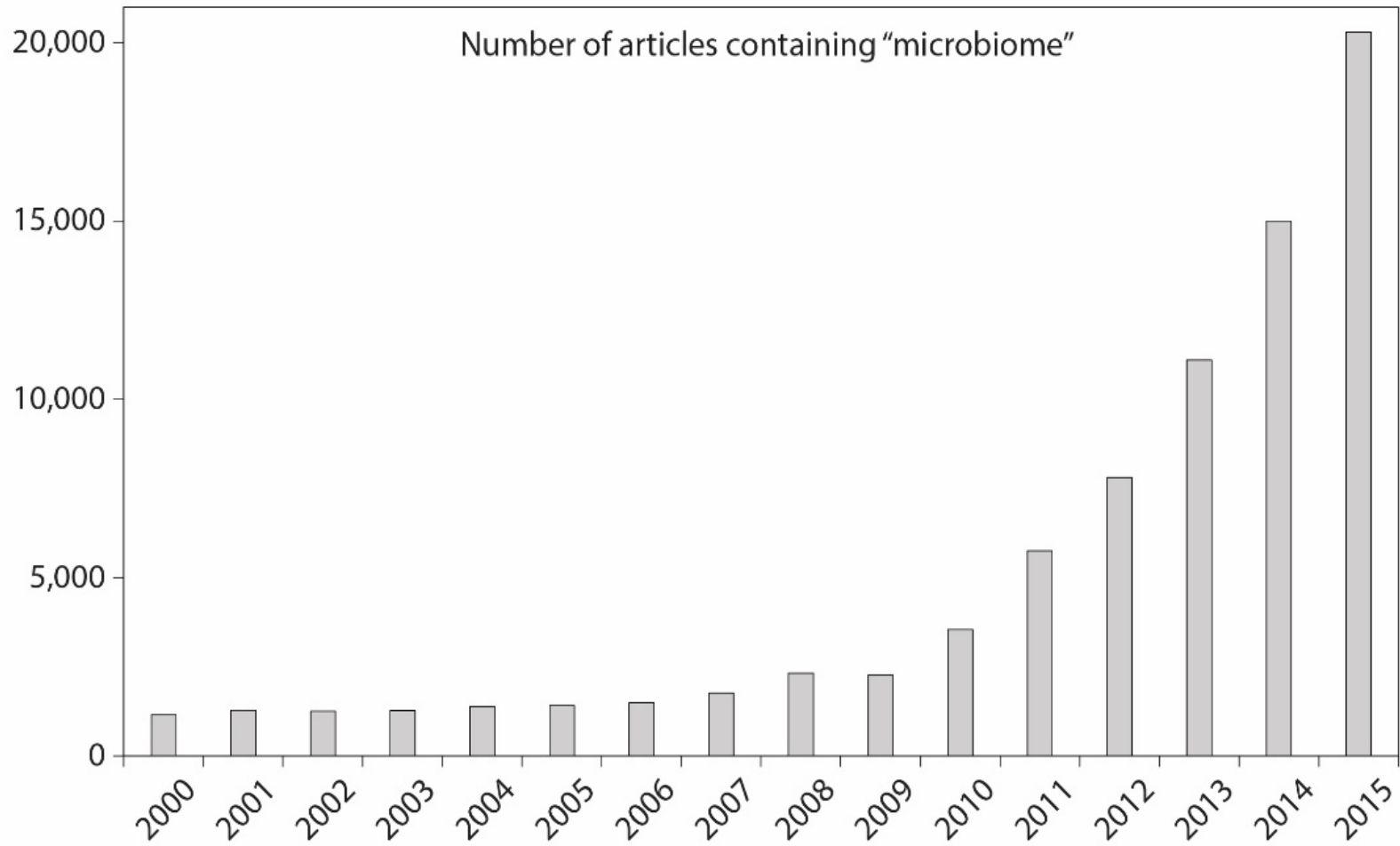
# AN EXAMPLE: MICROBIOMES & DISGUST



1. Survey data
  - perception of risks? benefits?
  - support for regulation?
2. Content analysis
  - what is covered in online media?
3. Experiment
  - disgust, attention to news, & information processing

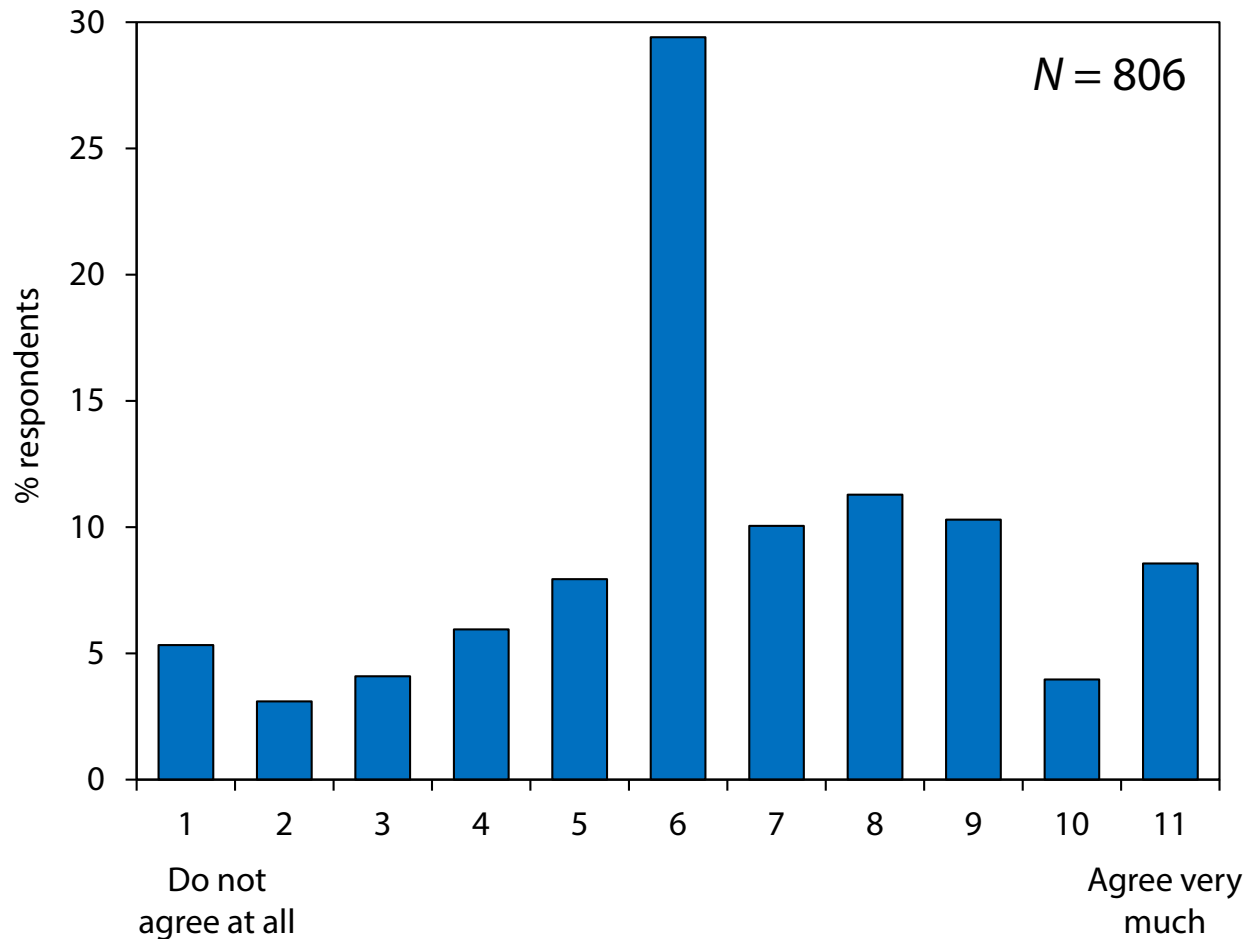


# SECONDARY DATA: GOOGLE SCHOLAR RESULTS

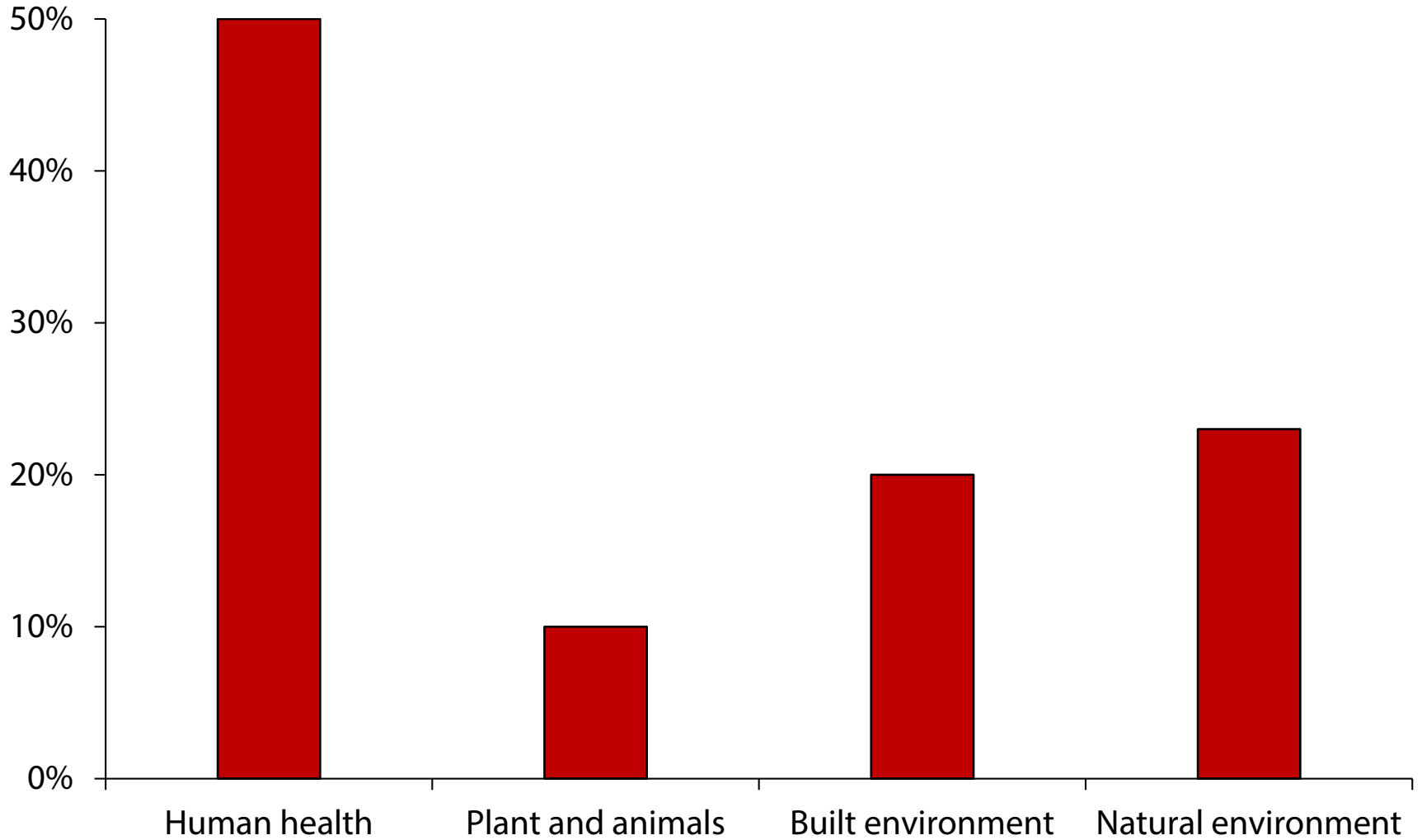


# 1. SURVEY DATA: OPINIONS ON REGULATION

“Academic research on the microbiome should be regulated.”



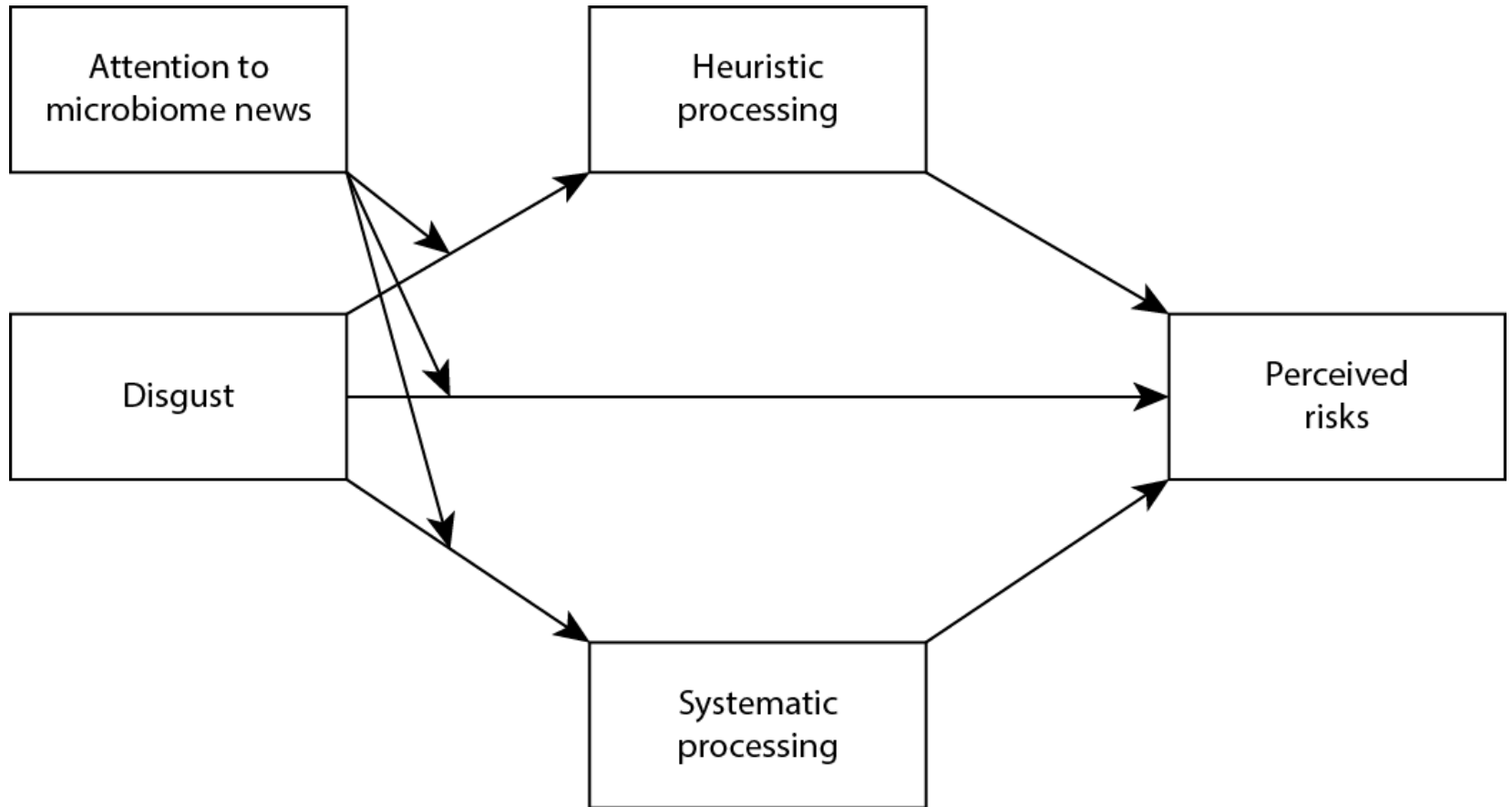
## 2. CONTENT ANALYSIS: TOPICS IN MICROBIOME ARTICLES



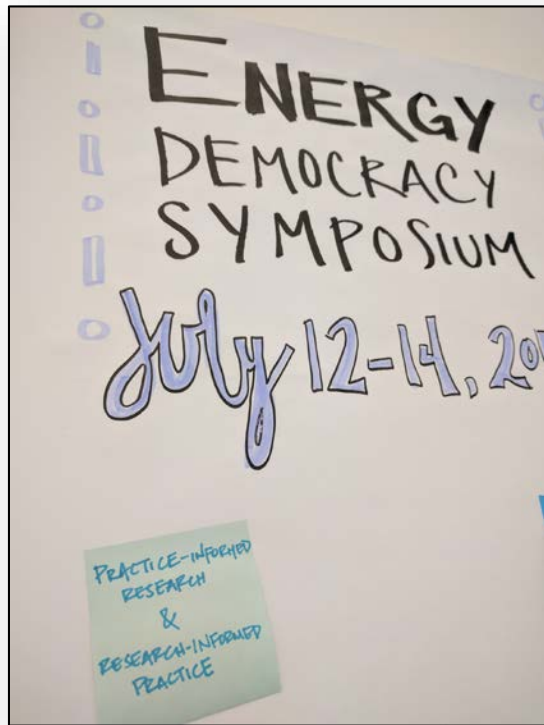


### 3. EXPERIMENTS:

# DISGUST, NEWS ATTENTION, INFO PROC



# ENERGY DEMOCRACY: BUILDING A RESEARCH AGENDA



***How is information about issues related to energy democracy communicated?***

- content analysis
- network analysis

***How does communication influence audience perceptions?***

- secondary data
- survey data
- experiments

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