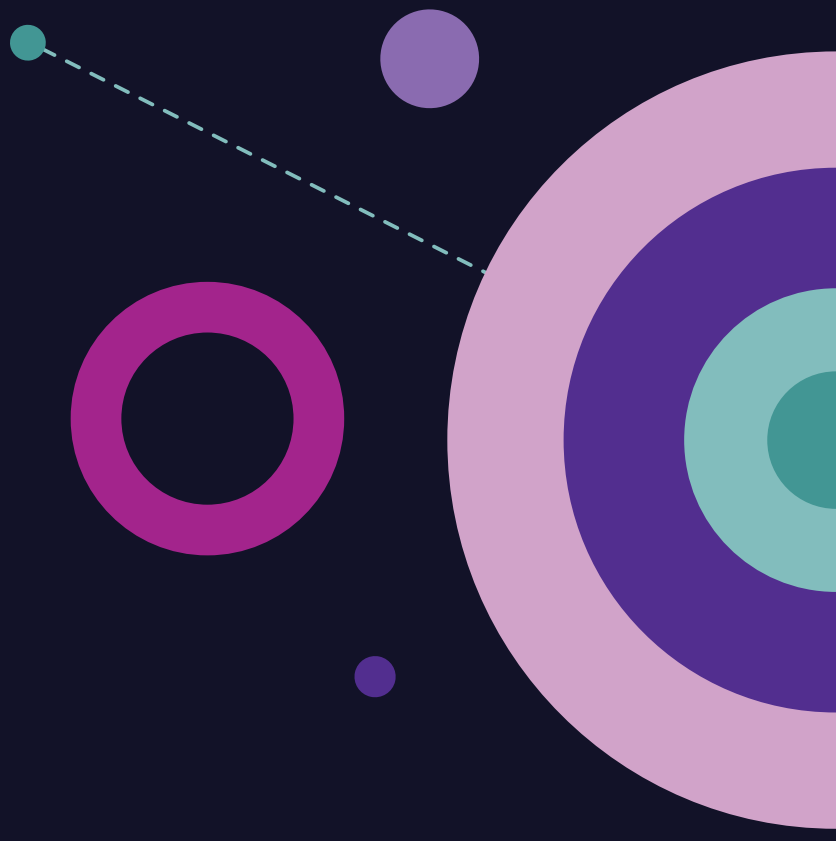
CSMaP | CENTER FOR SOCIAL MEDIA AND POLITICS

WWW.CSMAPNYU.ORG

Annual Report 2022–2023

NYU's Center for Social Media and Politics



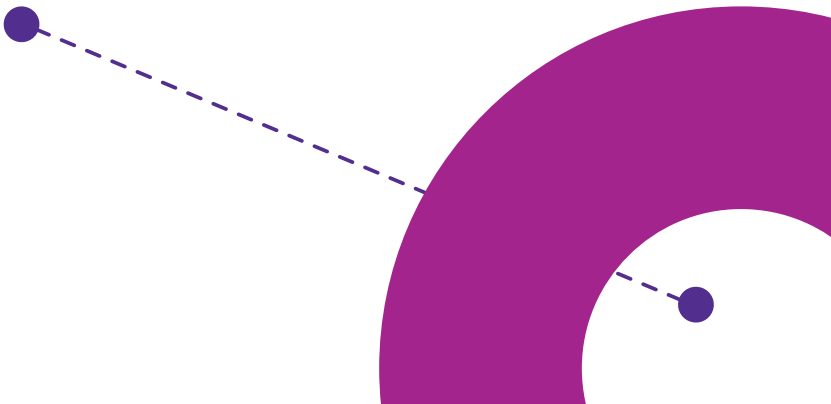
FACULTY DIRECTORS
Jonathan Nagler, Joshua A. Tucker

EXECUTIVE DIRECTOR
Zeve Sanderson

AFFILIATED WITH

NEW YORK UNIVERSITY

TABLE OF CONTENTS



ABOUT NYU'S CENTER FOR SOCIAL MEDIA AND POLITICS

Social media and digital technology have transformed our society and presented urgent challenges to democratic governance. As policymakers reshape laws governing the online sphere, it's critical that these policies are informed by high-quality empirical evidence. NYU's Center for Social Media and Politics is a leading academic research institute studying this ever-shifting online environment at scale. We work to strengthen democracy by conducting rigorous research, advancing evidence-based public policy, and training the next generation of scholars.

ACKNOWLEDGMENTS

Gifts and grants fund everything we do, from undertaking ambitious research to building out a talented team of researchers. We are extremely grateful for all the support we have received from our funders, including the Charles Koch Foundation, Craig Newmark Philanthropies, Gates Foundation, Hewlett Foundation, Knight Foundation, National Science Foundation, Russell Sage Foundation, and Siegel Family Endowment.

Introduction

For more than a decade, the landscape around social media and politics has been dominated by a handful of platforms — Facebook, Instagram, and Twitter — based largely on social networks. This has shifted radically in the past year. We are currently experiencing a transformation in the online environment, as generative AI intersects with a fragmenting social media ecosystem.

Legacy platforms are increasingly focused on algorithmically-driven, video-based content, chasing the success of new apps like TikTok. The social aspect of social media is fracturing across niche platforms, ranging from messaging apps to hyper-local networks. Generative AI — text and video — continues to proliferate, raising important questions about how it will influence, and perhaps pollute, the online information environment during the upcoming presidential election cycle. Alarmingly, social media is also becoming harder to study against this backdrop; Twitter, for example, gutted the API researchers used to independently analyze the platform.

Amid this splintering ecosystem, lawmakers are reshaping the laws governing the online sphere, tech companies are building new products, and civil society and journalists are working to better understand and improve our digital lives. Updated policies are necessary to ensure a healthy democracy, but it's critical for these policies to be informed by high-quality empirical evidence. That's where NYU's Center for Social Media and Politics excels.

In the past year, researchers at CSMaP have published several major studies analyzing legacy platforms, most notably the first articles from a collaboration examining the effect of Facebook and Instagram in the 2020 elections, led by our Co-Director Joshua A. Tucker. We have also built a foundation to study the shifting landscape moving forward. We started several projects related to new AI technologies, aiming to both study how AI impacts politics and society and to use AI to augment our research methods. We have also expanded data collection and research to explore burgeoning platforms, including NextDoor, Telegram, and TikTok.

At the center of this research is our robust data infrastructure and the diverse substantive expertise of CSMaP scholars. Together, our community continues to push the boundaries of academic study while working to nurture the next generation of scholars and experts. Our team now comprises 18 full-time researchers and operations staff, along with numerous research assistants, affiliated faculty, and graduate students. We are deeply grateful for their dedication and collaboration, and to our community of funders and internal partners whose support makes our work possible.

Academic research is an ongoing process: We complete and publish papers while initiating new data collections to facilitate future research. The past year was remarkably productive on both fronts. The following report summarizes research accomplishments from the past year, and offers more insights into our ongoing work.

With gratitude,

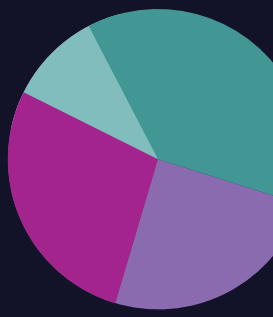
Zeve Sanderson
Executive Director

Jonathan Nagler
Faculty Co-Director

Joshua A. Tucker
Faculty Co-Director

Research

CSMaP's primary focus is the production of rigorous academic research and advancing scientific knowledge in public discourse. In this regard, the past year has been tremendously productive. In the 2022-23 academic year, we released 11 peer-reviewed publications, posted four public working papers, pushed forward on ongoing research, and launched a number of new initiatives.



Research Highlights

U.S. 2020 Facebook and Instagram Election Study (*Science* and *Nature*)

This summer, a team of close to two dozen external academic researchers — which was co-led by CSMaP Faculty Co-Director Joshua A. Tucker — published the first articles from an unprecedented multi-year collaboration to examine the impact of Facebook and Instagram in the context of the U.S. 2020 elections. The research is important for three primary reasons.

1. **The findings from the first four papers.** Not only were algorithms found to be extremely influential in terms of users' on-platform experiences, but the research also demonstrated that Facebook's users were significantly ideologically segregated in their exposure to political news. However, despite the influence of algorithms, the team found that modifying several critical features of the platform experience did not notably affect political attitudes, including political polarization.

2. **The limitations of the findings.** Changing the algorithm for a few months may not make a difference when platforms have been around for decades. People also get information from many other sources. It's difficult to disentangle how and why different factors influence political attitudes, but the work suggests important directions for future research.

3. **The policy implications.** The research to date suggests there are no simple solutions to complex problems like the level of political polarization in American society. It also demonstrates the possibility of unexpected consequences from simple changes to the algorithm, which is the reality of today's complex networked and algorithmically driven information ecosystem. This underlines the importance of evidence-based research. But that research is only possible with sufficient access to data, as was available in this collaboration. This highlights the potential for these kinds of partnerships, but it is not a panacea. Ultimately, policymakers should act to secure data access for researchers to study platforms' impact on society, rather than forcing us to rely on platform leadership.

Exposure to the Russian Internet Research Agency Foreign Influence Campaign on Twitter in the 2016 Election and Its Relationship to Attitudes and Voting Behavior (*Nature Communications*)

Numerous investigations have found clear evidence that Russia interfered in the 2016 election, with the twin goals of influencing voting behavior and undermining American democracy. Despite this massive effort, however, most voters actually had little or no direct exposure to Russia's campaign on Twitter in 2016. In this paper, we found that Russia's Twitter campaigns primarily reached a small subset of users, most of whom were highly partisan Republicans. In addition, there were no measurable changes in attitudes, polarization, or voting behavior among those exposed to this disinformation.

View a full list of articles in the Appendix.

Ongoing Research

In addition to our published articles, as of September 2023 we have also posted four public working papers and have 41 ongoing research projects. Project highlights include:

1 Generative AI

We're exploring two lines of research related to new AI technologies. First, we're leveraging recent innovations in LLMs to augment how we study politics. Measurement of core political concepts has remained a key challenge in quantitative research. In a recent working paper, we used ChatGPT to successfully estimate political ideology. We're now exploring how to use these tools to better measure new concepts, such as political sectarianism, at scale. Second, we're analyzing how AI will impact politics. We're in the opening stage of a project with researchers at the University of California San Diego and Princeton examining how ChatGPT answers prompts posed in English compared to Chinese. Early results suggest that prompts posed in Chinese often produce answers that differ from those posted in English, suggesting the possibility of "propaganda bias" in LLMs.

2 Fracturing Social Media Environment

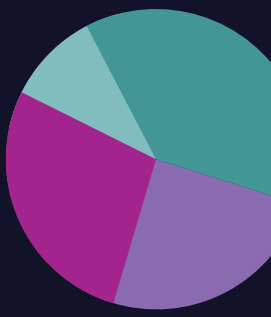
Social media was dominated by a few major platforms (i.e. Twitter, Facebook, Instagram) for more than a decade. This landscape appears to be splintering. In the past few years, we've seen the rise of broadcast-style entertainment apps, private messaging apps, and other niche platforms, ranging from burgeoning Twitter alternatives to right-wing networks. We're setting up new research infrastructure to explore these online environments, including projects analyzing which communities use Nextdoor, examining image-based communication among far-right groups on Telegram, and collecting video data to understand how politics is talked about on TikTok.

3 Understudied Populations

Most social media research — as well as resources at the platforms — focuses on the United States. But most of the world's social media users live outside the U.S. and/or speak non-English languages. We have several projects examining these understudied populations. In a working paper posted this year, we conducted an experiment in Brazil, finding that reducing users' WhatsApp activity reduced exposure to false rumors, but had limited effects on beliefs or political polarization. We also continued our Bilingual Election Monitor project, which pairs regular surveys with digital trace data to examine media consumption, discussion of political issues, and the spread of misinformation among English- and Spanish-speaking Latinos.

Public Impact

Over the last year, our team focused on increasing the public impact of the Center's work in four primary ways: policy engagement, academic and public events, strategic communications, and network building.



Policy Engagement

The policy debate around technology and social media changed dramatically last fall with the release of ChatGPT, which sparked an international conversation about the impact generative artificial intelligence will have on society and democracy. CSMaP engaged in this conversation by sharing our research with the policymakers, civil society groups, and industry professionals working to strengthen democracy in the digital age.

In the last year, we met with senior White House and European Union officials to discuss securing data access for research; submitted public comments to the EU on data sharing and to the White House's Office of Science and Technology Policy on how to mitigate the risks of generative AI; and presented CSMaP research to several industry and civil society groups.

Academic and Public Events

Since fall 2022, CSMaP directors and experts gave 58 presentations at external events, ranging from academic conferences and workshops (e.g. Social Science Research Council's conference on Social and Behavioral Science at Scale) to public-facing lectures (e.g. Williams College lecture on Social Media and Democracy).

Internally, we also ran seven events for public audiences, including a four-part seminar series featuring new research ahead of the midterms and a panel discussion about online radicalization following a film screening at the Angelika Film Center.
In total, our events welcomed more than 525 virtual and in-person attendees. We also hosted our fourth annual academic conference, which welcomed more than 30 scholars (right) from around the globe to present research, discuss future opportunities for collaboration, and network.

Strategic Communications

Communications continues to be a critical part of CSMaP's overall strategy. By cultivating relationships with top journalists and sharing our research in a variety of digital platforms, our experts add scientific rigor to media coverage and inform public discourse about democracy in the digital age. Here are some key metrics from the past year:

Media

CSMaP experts and research was cited in **208** news articles since September 2022, ranging from *The New York Times* and *NPR* to *Associated Press* and *Politico*. This represents a **49 percent** increase from the previous year. In addition, we published eight articles in popular outlets, including *The Washington Post*, *Brookings*, and T*he Hill*, ranging from data-informed analyses to op-eds.

Website

After launching a new website in early 2022, we've continued to see sustained growth in traffic. Overall web traffic is up **30 percent** over last year, with a **50 percent** increase in unique visitors.

Email

Thanks to several successful events, our email list continued to grow over the past year, increasing about **50 percent**. Despite this increase in audience, our newsletters and updates continue to garner high open rates of more than **50 percent**, which is well above industry benchmarks.

Social Media

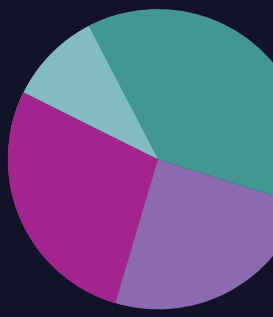
Unfortunately, Twitter (or X as it's now known) continues to degrade under Elon Musk's ownership, and it is no longer the easiest and best way for CSMaP to share research with our broader community. As a result, we have started using alternative sites, including Threads, Mastodon, Bluesky, and Linkedin.

Network Building

Led by our Executive Director, we have been directly involved in supporting the overall field of academic, policy, and civil society groups focused on democracy and technology. Specifically, we have continued to play a leadership role in the development of the Knight Research Network. In addition, CSMaP was recently awarded a new NSF-SaTC grant to lead the development of a Research Coordination Network focused on Democracy in the Networked Era. Through a series of events and resources, the RCN will aim to enable a community of scholars across disciplines to collaborate on research. RCN outputs will also inform public discourse by making research findings accessible to industry, policymakers, and civil society.

Data Engineering

At the heart of CSMaP's work is our massive data infrastructure. Leveraging NYU's high-performance computing cluster, we can analyze billions of diverse data points, ranging from social media posts to donated digital trace data. We also build and maintain open-source software tools and modeling processes that enable the broader research community. Here are key statistics regarding advancements over the past year.



Collecting Data from Platforms

SOCIAL MEDIA

Twitter – 65 billion tweets going back to 2016

YouTube – 500 million videos and **3 billion** comments from **178 million** channels

Reddit – 1.65 billion submissions and **12.66 billion** comments since 2005

Meta (Facebook & Instagram) – 3.5 million posts by candidates for Congress, from 2016 to present

Gab – 393 million posts from **6.4 million** users

Gettr – 153 million posts from **6.6 million** unique users

Rumble – 80 million videos from nearly **6.5 million** users

BitChute – Infrastructure in progress to collect metadata for all videos on the platform

TikTok – Initial stages of data collection

NEWS / MEDIA

Building on our project examining information ecosystems and flows of Ukrainian, Russian, and American media, we're developing a pipeline to create a data set of news media.

- The data set currently includes approximately 3 million unique news articles, from popular sources (e.g., ***New York Times***, ***Fox News***, ***CNN***) as well as low-quality sources (e.g. ***Daily Caller***, ***Natural News***, ***Gateway Pundit***). We are aiming to publish this as an open-source tool for researchers soon.

We shared scrapers for Gettr, Rumble, Gab, and news media outlets with researchers at the Media and Democracy Data Cooperative and other partner academic institutions.

Collecting Data from People

SURVEY DATA

One unique aspect of CSMaP's work is our ability to pair traditional surveys with digital trace data from respondents. This allows us to understand respondents' views — and the online information environment that influences those views.

- Last year we ran two panels (YouGov and Bilingual Election Monitor) surveying **nearly 6,000 Americans**, in both English and Spanish

TOOLS FOR DATA DONATIONS

We partnered with Volunteer Science to collect Twitter and Facebook data for our YouGov and Bilingual Election Monitor panels. We also asked respondents to download and send us their YouTube data.

From respondents who shared their data, we've collected:

- 736,000 Facebook posts, 575,000 Facebook likes, and 5.9 million YouTube videos

Two Chrome extensions also support this work:

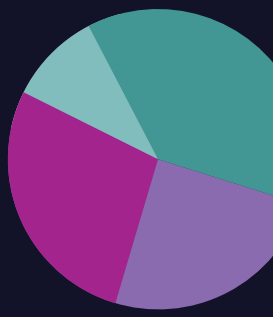
- "URL Historian" collects web browsing data and YouTube page HTML, and "search engine results saver" collects YouTube URLs and page HTML

We are also developing an Android-based mobile application for survey data collection. The app will measure users' individual app usage and collect granular data about the content users see on social media.

Finally, we created plugins to support two additional projects: One collects friends and recommendations posted on a prominent Chinese news and content platform. Another is a Twitter application that allows survey panelists to enable us to pin a list, follow an account, and collect user timeline data on their behalf.

People

Pushing the boundaries of academic study requires a talented and cross-disciplinary group of researchers with knowledge of the latest data and social science techniques. Scholars, research engineers, data scientists, and operations staff are vital to the breadth and depth of our research portfolio. Over the past year, we have continued our work to mentor students, train new researchers, and support and collaborate with CSMaP alumni.



Training & Hiring

By training students and postdocs, CSMaP develops a new generation of scholars and experts to explore some of the biggest questions at the intersection of social media and democracy. In the 2022-23 academic year, our faculty co-directors taught both undergraduate and graduate courses, mentoring more than three dozen undergraduate, masters, and PhD students.

Since last fall, we also welcomed several new team members:

- **Solomon Messing** — who previously founded data science research teams at Pew Research Center, Acronym, and Twitter — joined CSMaP as a Research Associate Professor.
- **Benjamin Guinaudeau**, **Felicia Loecherbach**, and **Wei (Rocio) Zhong** joined as postdoctoral fellows. Together, our postdocs serve as the Center's core research engine, representing methodological, substantive, and disciplinary diversity.
- **Ben Boehme** joined as a Research Engineer and **Amanda Drucker** as a Finance & Operations Associate.

We also continued to support and collaborate with our alumni network, which includes three dozen researchers across academia and industry. We helped two postdoctoral fellows and one research engineer transition into new roles, and said goodbye to three students who received their PhDs.

MEGAN A. BROWN
started her PhD at the School of Information at the University of Michigan

NEJLA AŠIMOVIĆ
joined the University of Pennsylvania's Institute for the Study of Citizens and Politics as a Postdoctoral Fellow

MAGGIE MACDONALD
joined the University of Kentucky as an Assistant Professor in Political Science

ANGELA LAI
joined Bayer as an NLP Data Scientist

TIAGO VENTURA
started as an Assistant Professor in Computational Social Science at Georgetown University's McCourt School of Public Policy

SWAPNEEL MEHTA
joined Boston University and MIT as a Postdoctoral Associate

By the Numbers

RESEARCH

CSMaP papers cited **1,750** times in 2023

10 peer-reviewed articles and **4** public working papers published in the past academic year

41 ongoing research projects

Nearly **6,000** people surveyed for YouGov panel and Bilingual Election Monitor project

DATA ENGINEERING

65 billion tweets collected

500 million videos collected from YouTube

546 million posts from Gab and Gettr

3 million unique news articles collected from dozens of sources

150,000 downloads of our open-source tools

PUBLIC IMPACT

58 presentations by our experts at external events

525 attendees at 7 CSMaP public events

49 percent increase in media mentions

30 percent increase in web traffic

50 percent increase in email list

PEOPLE

37 undergraduate, masters, and PhD students mentored

36.5 hours per week worked by CSMaP undergraduate research associates

36 CSMaP alumni across academia and industry

Appendix

Peer-Reviewed Publications by CSMaP Researchers

Like-Minded Sources On Facebook Are Prevalent But Not Polarizing - *Nature*

Reshares on Social Media Amplify Political News But Do Not Detectably Affect Beliefs or Opinions - *Science*

Asymmetric Ideological Segregation in Exposure to Political News on Facebook - *Science*

How Do Social Media Feed Algorithms Affect Attitudes and Behavior in an Election Campaign? - *Science*

Measuring the Ideology of Audiences for Web Links and Domains Using Differentially Private Engagement Data - *Proceedings of the International AAAI Conference on Web and Social Media*

Computational Social Science for Policy and Quality of Democracy: Public Opinion, Hate Speech, Misinformation, and Foreign Influence Campaigns - *Handbook of Computational Social Science for Policy*

Exposure to the Russian Internet Research Agency Foreign Influence Campaign on Twitter in the 2016 US Election and Its Relationship to Attitudes and Voting Behavior - *Nature Communications*

Dictionary-Assisted Supervised Contrastive Learning - *Proceedings of the Conference on Empirical Methods in Natural Language Processing*

Using Social Media Data to Reveal Patterns of Policy Engagement in State Legislatures - *State Politics & Policy Quarterly*

Most Users Do Not Follow Political Elites on Twitter; Those Who Do Show Overwhelming Preferences for Ideological Congruity - *Science Advances*

Election Fraud, YouTube, and Public Perception of the Legitimacy of President Biden - *Journal of Online Trust and Safety*

Public Working Papers

WhatsApp Increases Exposure to False Rumors but has Limited Effects on Beliefs and Polarization: Evidence from a Multimedia-Constrained Deactivation.

Large Language Models Can Be Used to Estimate the Latent Positions of Politicians

Social Media, Information, and Politics: Insights on Latinos in the U.S.

Evaluating Expectations from Social and Behavioral Science about COVID-19 and Lessons for the Next Pandemic

Articles in the Popular Press

AI Could Create a Disinformation Nightmare in the 2024 Election - *The Hill*

How Americans' Confidence in Technology Firms has Dropped - *Brookings*

Twitter Was Central to American Politics. Musk's Ownership Puts That at Risk. - *Barron's*

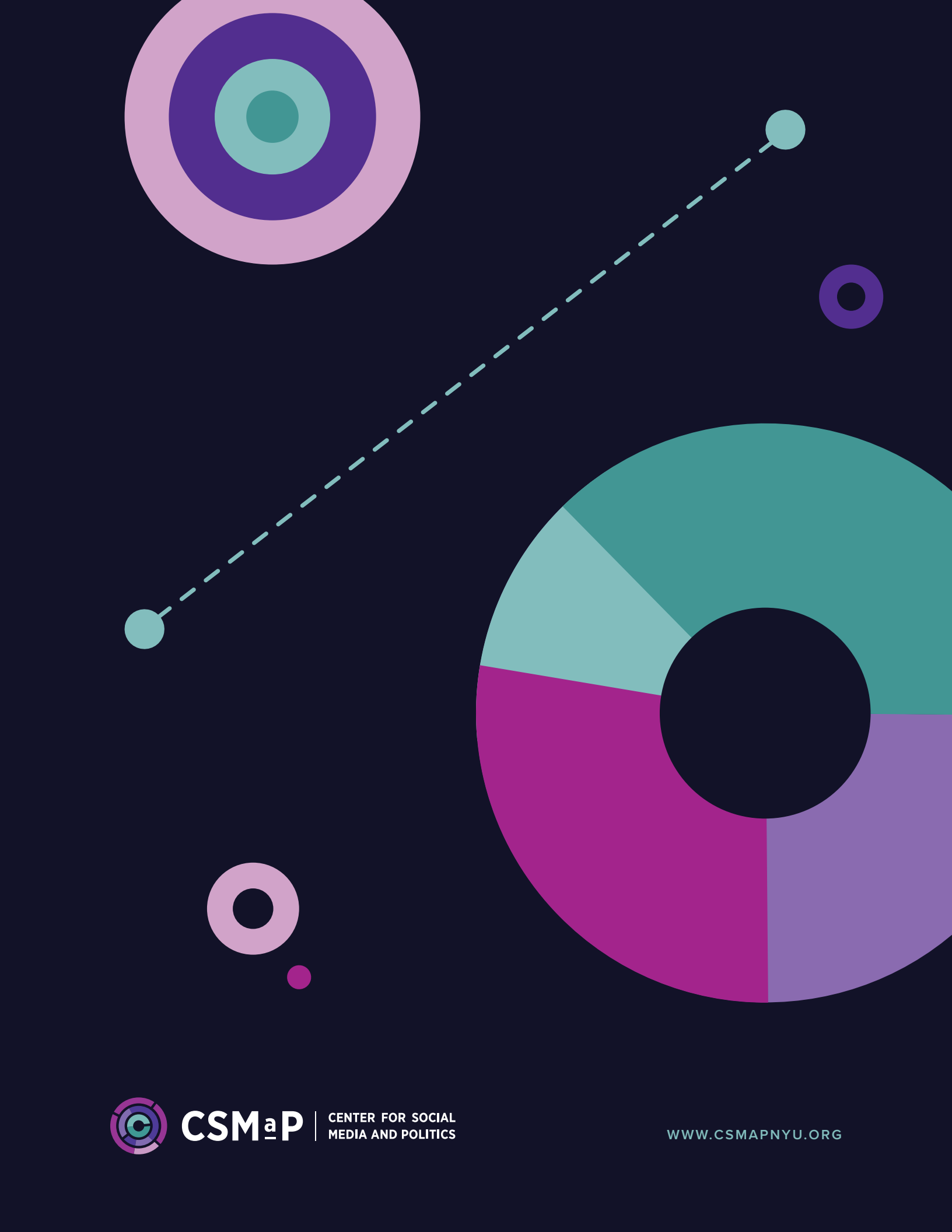
The Problem with TikTok's New Researcher API is Not TikTok - *Tech Policy Press*

Globally, Russia May Actually Not Be Losing the Information War - *Tech Policy Press*

Musk's Twitter Shake-Up Could Deliver a Critical Blow to Social Media Research - *The Hill*

Latinos Who Use Spanish-Language Social Media Get More Misinformation - *The Washington Post*

Echo Chambers, Rabbit Holes, and Ideological Bias: How YouTube Recommends Content to Real Users - *Brookings*


CSMaP
CENTER FOR SOCIAL
MEDIA AND POLITICS
WWW.CSMAPNYU.ORG