

# **A GROWING COMMUNITY OF SCHOLARSHIP AND PRACTICE**

## **THE KNIGHT RESEARCH NETWORK IN ITS SECOND YEAR**

**ASSESSMENT REPORT  
JOHN S. AND JAMES L. KNIGHT FOUNDATION  
KNIGHT RESEARCH NETWORK, 2020-21**

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**KNIGHT  
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# Executive Summary

This report is the second in a series that evaluates progress of the Knight Research Network (KRN), a group of researchers located across 38 universities and 16 policy institutes. Launched in 2019, KRN has now seen \$55 million in investment from Knight Foundation, matched by another roughly \$40 million from institutions and funders. This assessment finds the network to be in a strong place: generating knowledge at a high rate and having an increasing level of impact in the policy sector. Findings over the period studied, mid-2020 to fall 2021, include:

- KRN had grown to roughly 620 persons (faculty, staff, students, and affiliates) involved, including a large pipeline of graduate students and 324 authors of research products
- The 14 core institutional grantees generated 583 publications; core grantees served as expert sources in 1,358 news stories, providing a vital base of trusted expertise for media
- KRN members continue to brief policymakers in, for example, Congress, the Federal Trade Commission, the National Science Foundation, the European Commission, the U.K. House of Lords, as well as other governmental bodies. Core grantees alone had nearly 600 speaking engagements
- The network is developing diverse institutional voices who are becoming known as go-to centers of excellence on issues such as race and technology, social media and democracy, fact-checking and journalism, and more
- KRN members are beginning to leverage the network by creating working groups and leadership committees, and they produced a collective blueprint for a path forward as a community of knowledge and practice.

This report also makes recommendations on key ongoing challenges and opportunities for the network, including those related to data access from technology companies; translating more fundamental research into policy-relevant communications products; greater network-wide communications infrastructure and digital assets; and greater focus on ensuring a diverse pipeline of media and policy researchers.

# Introduction

## Background

In 2019, Knight Foundation launched a major initiative to foster informed democratic engagement by improving the quality of information online through connecting independent research to policy insight and practice. Now totaling more than \$55 million in commitments, these investments are bolstering the work of 620 researchers, graduate students and staff in a sprawling, methodologically and ideologically diverse network of 38 universities and 16 think tanks around the country now known as the Knight Research Network (KRN).

Knight has commissioned ongoing assessment work to monitor the progress of this initiative and to inform future grantmaking. Last year, the [first assessment](#) found that the grantees were highly productive during initial stages in the first year; particularly given large-scale societal disruptions due to the pandemic.<sup>1</sup> Teams produced hundreds of academic and media publications, saw thousands of scholarly citations, and generated broad public impact, including providing testimony and advice to numerous lawmakers and regulators, both in the United States and Europe. Still, at that time, there were significant worries about the effect of the global COVID-19 pandemic on the ability of teams to collaborate and to raise additional funding. The lack of access to data from technology companies was also identified as a significant issue for KRN's potential progress in terms of basic research.

This report, representing a second annual assessment, studies the period of June 2020 to August 2021. Following an initial launch of KRN accompanied by strategic goals to help enhance and build a growing field around what might be called “digital democracy,” Knight Foundation leaders have specified three key pillars of the strategy: 1) Accelerate the creation of new knowledge; 2) Build a robust network of scholars and experts; and 3) Connect research to policy and practice. By pursuing this strategy, Knight Foundation seeks to improve the quality of online information and foster informed engagement in the democratic process by investing in independent research and policy insights. This assessment comprehensively measures the activity of the grantees, both individually and collectively, with reference to those three strategic goals and structures its findings accordingly, based on extensive grantee surveys, more than two dozen interviews and network and data analysis of outputs (see Methods and Research Design section in Appendix.)

## Overview of Findings

KRN has grown considerably, as many institutions have added faculty, staff, students and affiliates. The report finds that there are roughly 620 persons involved in KRN, with 324 authors of research products (including co-authors who are external but worked on a KRN-funded project) over the period studied and a huge pipeline of graduate students being trained. The first KRN assessment report, published in January 2021, did not attempt a census of personnel, as the network was still in a start-up phase. The first report focused its analysis on 60 principal researchers affiliated with the 11 core grantees among the academic institutions.

<sup>1</sup> John P. Wihbey, “Digital Democracy: Accelerating a New Field of Knowledge,” Knight Foundation (January 2021), <https://knightfoundation.org/reports/digital-democracy-accelerating-a-new-field-of-knowledge/>.

This report notes numerous positive trends. Many KRN scholars note that there has been an “explosion” of research in the second year, published in leading journals and conferences and across top media outlets. As one KRN researcher noted in an interview, “The whole point of increasing just the volume of work is that it increases the chances that some of the work produced will be lasting. And I think we have good evidence that that’s the case.” A cohort of 14 core grantees with the largest support from Knight (more than \$1 million investment) produced nearly 600 publications over the period studied here (June 2020 to August 2021.) As will be discussed, findings from network analysis done for this report suggest that KRN on the whole is becoming more connected, co-authoring more publications together and publishing/collaborating in more shared venues. More expertise in computer science, economics and policy is also evident in the network as more personnel and intellectual capacity has come online.

Importantly, too, following meetings in spring/summer 2021, KRN members independently produced a blueprint white paper, *Better Together: A Vision for Collaborative Structures Across the Knight Research Network*, which also frames KRN’s goals around the same three pillars that Knight leadership have articulated: knowledge creation, building a professional ecosystem and policy impact.<sup>2</sup> In June 2021, a half-day convening with principals from across KRN and the broader field focused on formulating metrics for impact across the network and how to articulate the value of the field’s insights to various stakeholders in academia, philanthropy, civil society, industry and government.

Finally, with regard to connecting research and practice, KRN members testified, advised and advocated in a wide variety of policy and industry venues. Digital tools and timely monitoring systems around misinformation of various kinds helped numerous civil society actors. As another KRN researcher noted in an interview, “I think we’re living the formation of a field. I do think this particular field has some unique properties, and one of the unique elements is that it has such important societal impacts.” Highlights in the research-to-practice area include KRN members providing the most comprehensive monitoring of disinformation campaigns in the 2020 presidential election and the formulation of landmark legislation to enable better access to technology company platform data, now being considered by the U.S. Senate. Further, KRN members and Knight leadership have helped to catalyze and inspire significant field-wide funding, including a notable effort from the National Science Foundation for convergence research in the parallel area of “Trust and Authenticity in Communications Systems.”<sup>3</sup>

In terms of challenges identified, this assessment notes three main areas for KRN. The first challenge relates to whether or not KRN is going to become a truly integrated network, or whether it is sufficient to stand as part of a diverse research and policy ecosystem, with some clusters of members highly connected while others remain only loosely coupled. So far Knight’s decision has been not to impose top-down coordination on KRN, but rather to let working groups and leadership emerge organically. Such an approach is consistent with funding in basic research areas. But it comes with tradeoffs, and some members would like to see more explicit coordination and incentives to collaborate on research projects. The second challenge is related, and it involves the building of infrastructure. KRN and Knight have aspired to create infrastructure that could help with joint fundraising and to mitigate the enormous complexity of accessing and sharing research data. In both areas, no clear plan has yet emerged, although many members have been meeting to work on these issues, with Knight personnel involved. The final challenge relates to connecting research to practice. The knowledge

2 Julia Carter, Eli Lehrer, Kathryn Peters, and Zeve Sanderson, *Better Together: A Vision for Collaborative Structures Across the Knight Research Network* (2021), <https://bit.ly/KRNBetterTogether>.

3 “Convergence Research Funding for ‘Trust and Authenticity’ and the ‘Networked Blue Economy,’” National Science Foundation, March 25, 2021, [https://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=302369&org=SBE](https://www.nsf.gov/news/news_summ.jsp?cntn_id=302369&org=SBE).

generated by KRN is truly impressive. However, the record so far is more mixed in terms of turning this knowledge into applied areas—policy, tools, products and other concrete outcomes—and the pathways for translation of this emerging field's research into practice-oriented domains are still developing.

A further finding is that the network is cultivating diverse institutional voices who complement one another. Even as KRN has developed as a tighter scholarly network and community of practice, some of the research institutions are creating a distinctive menu of specialties and becoming known as go-to centers of excellence on certain kinds of questions. Developing diverse methods and approaches is absolutely vital, as the field is quickly evolving and it cannot be known for sure what sorts of methods will be necessary in the future given the pace of technology. A central goal of KRN is for policymakers and key stakeholders in industry and civil society to be informed by independent, nonpartisan research on a variety of highly complex, interrelated subfields, including content moderation and free expression online; intermediary liability; platform data access for researchers to help fuel large-scale quantitative analysis of automated systems; and the scale and appropriate roles of private technology firms in our society. KRN's various centers are approaching such areas from different angles and producing distinctive lines of research.

For example, the Center for Information, Technology, and Public Life (CITAP) at the University of North Carolina at Chapel Hill has become a prominent institution supporting scholarly voices who take a critical approach to issues of race, identity and technology; CITAP is complemented by aligned work being done at UCLA's Center for Critical Internet Inquiry, as well as at Data & Society. Meanwhile, the Center for Social Media and Politics (CSMaP) at New York University, Carnegie Mellon University's IDEaS Center, the University of Washington's Center for an Informed Public (CIP), and Observatory on Social Media (OSMe) at Indiana University have become key centers of excellence for media and policymakers on all issues relating to misinformation and social media data patterns. The Institute for Data, Democracy & Politics (IDDP) at George Washington University and the Internet Observatory at Stanford University have become major players on, among other things, issues of internet technology regulation, both domestically and globally. Knight investments in policy institutes/think tanks have allowed newer players such as R Street Institute and Open Markets Institute, as well as cornerstone technology policy institutions such as the Center for Democracy and Technology (CDT), to build greater intellectual capacity and increase their output as policy debates have gained steam in recent years.

# I. Strategic Goal 1: Accelerating Knowledge

Combined, core KRN institutions generated 583 publications supported by Knight funding over the period June of 2020 to August 2021, across leading academic journals and the country's major media outlets, from the *New York Times*, the *Washington Post* and the *Wall Street Journal* to CNN, NBC, NPR and Fox News. Since Knight's initial research investments in 2019, grantees have published more than 1,000 articles and papers, many of which will prove seminal for the field around the study of media and democracy for a generation.

Consider just a few representative examples. A George Washington University IDDP scholar co-led a project that fielded the largest global fact-checking experiment to date, the findings of which were published in the *Proceedings of the National Academy of Sciences* journal;<sup>4</sup> the IDDP team also published a study in *Nature: Scientific Reports* on how to combat online extremism.<sup>5</sup> University of Wisconsin scholars finished two path-breaking books: *Battleground: Asymmetric Communication Ecologies and the Erosion of Civil Society in Wisconsin* and *Mediated Democracy: Politics, the News, and Citizenship in the 21st Century*.<sup>6</sup> Carnegie Mellon's team has continued to develop technical data collection pipelines to examine issues such as COVID-19 misinformation and hate speech, and they have briefed government and private industry about these new capacities/resources (and developed patentable products.)

Further, Indiana University, University of Washington, and New York University (NYU) have also been building and updating major data-collection infrastructure, a key to making new research insights. As of August 2021, NYU's CSMaP alone had 50 projects that were at various stages of the research publication lifecycle. Over the period studied, that team published ten articles in peer-reviewed journals, three data reports, and six articles in the popular press. Such outputs make methodological and substantive contributions, such as developing novel methods for classifying hate speech and studying patterns of its spread during election season; studying social media company strategies and how they affect information spread across platforms, at the information ecosystem level; and testing the effects of Facebook usage in an ethnically polarized global setting.

4 Ethan Porter and Thomas J. Wood, "The Global Effectiveness of Fact-Checking: Evidence from Simultaneous Experiments in Argentina, Nigeria, South Africa, and the United Kingdom," *Proceedings of the National Academy of Sciences* 118, no. 37 (2021).

5 N. F. Johnson, R. Leahy, N. J. Restrepo, N. Velásquez, M. Zheng, P. Manrique, and S. Wuchty, "Hidden Resilience and Adaptive Dynamics of the Global Online Hate Ecology," *Nature* 573, no. 7773 (2019): 261–65.

6 L. A. Friedland, D. V. Shah, M. W. Wagner, K. J. Cramer, C. Wells, and J. Pevehouse, *Battleground: Asymmetric Communication Ecologies and the Erosion of Civil Society in Wisconsin. Elements in Politics and Communication* (Cambridge: Cambridge University Press, 2022); M. W. Wagner and M. R. Perryman, *Mediated Democracy: Politics, the News, and Citizenship in the 21st Century* (Thousand Oaks, California: CQ Press, 2021).



At Yale University's Information Society Project (ISP), Jack Balkin, who published two books during the period studied, was appointed a member of the Presidential Commission on the Supreme Court of the United States. In partnership with Yale's Thurman Arnold Project, on a parallel grant led by Fiona Scott Morton, ISP hosted conferences and published numerous articles on issues such as freedom of the press, digital platforms as infrastructure, antitrust and Big Tech, and the digital public sphere.

The following are institutional profiles highlighting workflow and production over the period studied.

### **Observatory on Social Media (OSoMe), Indiana University**

In addition to publishing 35 scholarly papers, doing 44 speaking engagements and serving as expert sources in 64 news articles, Indiana University researchers continued to build the [CoVaxxy dashboard](#), which monitors vaccine misinformation and vaccine uptake rates across U.S. states. More than 2,000 users from 30 countries have used these data tools.

### **Election Integrity Partnership (EIP), from Internet Observatory, Stanford University, and Center for an Informed Public (CIP), University of Washington**

These two major academic centers combined to run the landmark Election Integrity Partnership (EIP), launched in July 2020. Press briefings saw more than 100 journalists during election week. The partnership's work was covered by the *New York Times* and the *Washington Post* editorial boards, as well as by National Public Radio, Protocol, the Associated Press and *Detroit Free Press*. In March 2021, researchers published "[The Long Fuse: Misinformation and the 2020 Election](#)," judged by independent observers as the definitive report on the topic. The work will continue through the 2022 midterms.

### **Center for Information, Technology, and Public Life (CITAP), University of North Carolina at Chapel Hill**

The University of North Carolina has built one of the premier research centers in the country for the study of race, identity and communications technologies. CITAP's work and researchers were cited in nearly 100 media stories, across the leading newspapers and broadcast outlets. Scholars spoke in 50 public venues and authored 84 articles, in popular venues such as the *Atlantic*, *Wired* and the *New York Times*. Their scholarly contributions are helping to establish fundamental insights in the field, such as "[False Equivalencies: Online Activism from Left to Right](#)," in *Science*.

### **Center for Media Engagement (CME), University of Texas at Austin**

The team at CME continues to advise [dozens of U.S. newsrooms](#) on how to execute audience engagement strategies in order to maximize civic impact, citizen learning and retention of readers/news consumers. CME scholars published more than 110 articles, many on their active website, which saw more than 272,000 pageviews over the period studied. During this timeframe, the center garnered nearly 1.5 million social media impressions and KRN-funded researchers received more than 300 placements in media stories. In addition, the team has been developing an overarching theoretical idea of "connective democracy," which addresses divisiveness and how to fix it by bridging divides among divergent groups. The team published research on issues such as [computational propaganda](#) in elections and politics, effective strategies for news fact-checking, and online incivility and its effects on public attitudes.

### **Data & Society**

The [AI on the Ground initiative](#) has been building a body of research on algorithmic systems, and the initiative includes a transnational network of stakeholders interested in building and integrating



algorithmic systems into society to strengthen accountability. Their recently released report, *Assembling Accountability: Algorithmic Impact Assessment for the Public Interest*, maps the challenges of constructing algorithmic impact assessments (AIAs) and provides a framework for current AIA regimes.

Knight funding has also flowed to more discrete projects and initiatives—sometimes supporting a single researcher—which is helping to bolster areas within the knowledge ecosystem. For example, at the University of Nebraska College of Law, Gus Hurwitz has been leading a dynamic set of programs through Nebraska Governance and Technology Center, including an influential weekly podcast; co-hosting national workshops and conferences on issues such as cyber security and internet access; and publishing a volume of essays with Cambridge University Press on media as governance institution. A single scholar supported at the University of Kentucky Law School, Ramsi Woodcock, authored eight highly original academic papers, three academic blog posts, and a prominent op-ed over the period studied, and he has hosted a national conference on technology policy and markets/wealth distribution. Meanwhile, scholars at the University of Pennsylvania Law School Center for Technology, Innovation, and Competition, led by Christopher Yoo, have commissioned five research groups to write papers in areas of digital regulation and hosted a national conference in the area of antitrust.

Other KRN teams contributing to the knowledge ecosystem include, across a variety of subfields:

### **Mis- and disinformation:**

- Harvard University's Berkman Klein Center for Internet & Society continued to build its Assembly Forum program, which brings together fellows, students and a wide variety of academic, government, industry and civil society experts to analyze problems such as disinformation and build out prototypes and tools. Faculty and affiliates published in outlets such as the *Atlantic*, *Wired*, and the *New Yorker*. Knight's renewal of funding has led to expanding Assembly Forum and the founding of a new "pop-up" organization, the Institute for Rebooting Social Media.<sup>7</sup>
- Rick Hasen at University of California, Irvine School of Law, finished a new book (now published), *Cheap Speech: How Disinformation Poisons Our Politics—And How to Cure It*, and did talks about aspects of the research in advance of publication.
- A research team at the University of Georgia, led by noted First Amendment scholar Sonja West, produced an original paper on how to facilitate access to high-quality news through internet companies and platforms.

### **Legal analysis:**

- Evelyn Aswad at the University of Oklahoma produced new research relating to online speech domestically and globally. She compared jurisprudence from U.S. courts with the standards elaborated by the United Nations' human rights standards with respect to freedom of expression.
- The Mercatus Center at George Mason University published articles and advanced distinctive research ideas relating to "soft law"—government standards and mechanisms that create nonbinding norms and techniques—and permissionless innovation.
- Danielle Citron and Jonathon Penney at the University of Virginia School of Law launched a

<sup>7</sup> The Institute for Rebooting Social Media, Berkman Klein Center for Internet & Society at Harvard University, <https://cyber.harvard.edu/programs/institute-rebooting-social-media>.

major study of legislative and platform-based efforts to protect sexual and intimate privacy, in the context of the wider debate around Section 230.

- Eric Goldman at Santa Clara University School of Law completed a research project involving looking at lawsuits over account terminations and content removals online. Based on this, he provided extensive expert commentary to the press about de-platforming issues.
- Farshad Ghodoosi at California State University, Northridge, published papers at the intersection of contracts, deceptive design and textual understanding and presented work at more than ten conferences.

### Economics and regulation:

- The Center for Growth and Opportunity at Utah State University applied experimental economics methods to develop five research papers, on issues ranging from misinformation and voting to the economics of fact-checking.
- Dirk Bergemann in the Department of Economics at Yale University published a new paper on the value of data in a social media platform context, analyzing the incentives for sharing individual data in the presence of informational externalities.
- The Economic Security Project has been running extensive calls for research proposals and funding new research on major anti-monopoly issues at the intersection of tech and news/media consolidation.

### Rights and vulnerable groups:

- David Kaye at the University of California, Irvine School of Law, hosted events on the decisions of Facebook's Oversight Board and how platform regulation can better protect the human rights of non-users. He published papers analyzing discrete issues of content moderation oversight through a human rights lens and a second research report on content moderation oversight.
- Sarita Schoenebeck at the University of Michigan led a study that examined online experiences of Black women and strategies for healing and coping.
- Paul Gowder at Northwestern University worked on a book and developed research on organizational structures developed in political science, as well as constitutional theory, and how such ideas may be adaptable for the purpose of platform governance.

## Shared Knowledge Space

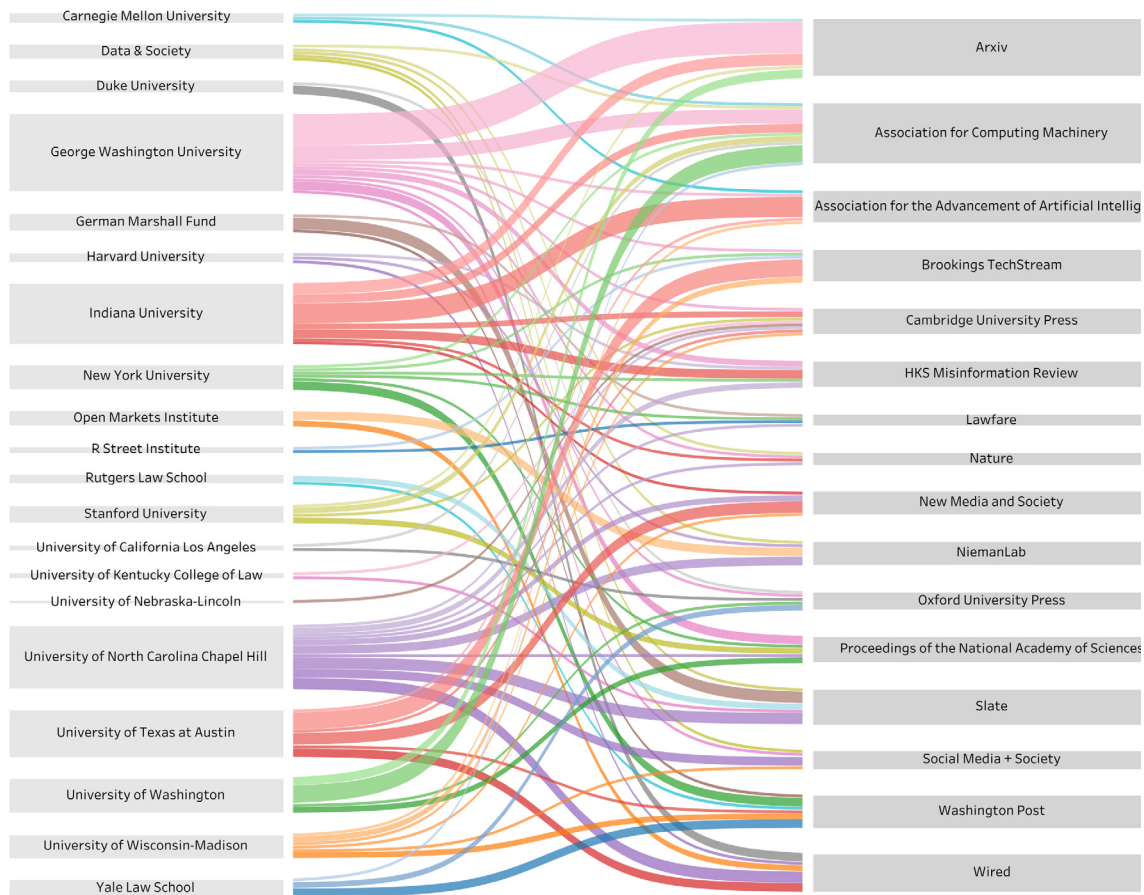
Although not an outcome directly funded by Knight Foundation, the Stanford Internet Observatory team launched a new academic journal, *The Journal of Online Trust and Safety*, which has a number of KRN members on its editorial board.<sup>8</sup> Key areas of focus for the journal, which is open access and interdisciplinary, include hate speech and harassment, spam and fraud, misinformation and disinformation, child exploitation and non-consensual intimate imagery, suicide and self-harm, and incitement and terrorism.

Given the volume of knowledge production, it is difficult to make sweeping generalizations about patterns within KRN's scholarly output. However, one metric that was established in the first KRN assessment report was shared knowledge space, here defined as publications in the same venues/

<sup>8</sup> "Announcing the *Journal of Online Trust and Safety*," Stanford University, July 29, 2021, <https://fsi.stanford.edu/news/announcing-journal-online-trust-and-safety>.

outlets by multiple KRN institutions. Over the period studied, there were 51 publishing venues in which at least two KRN members placed studies or articles; there were 16 publishing venues where four or more members did so (see Figure 1). These include widely accessed outlets such as the *Washington Post*, *Wired*, *Slate*, *Lawfare*, and *Nieman Lab*, and research venues such as *HKS Misinformation Review*, Brookings Institution publications, *Nature*, Association for Computing Machinery (ACM, which is tied to academic conferences), or the *Proceedings of the National Academy of Sciences* (PNAS). See Table 1 for specific publication counts among the top venues.

**Figure 1. KRN Organizations and Contributions to Publication Venues**



Garrett Morrow and John P. Wihbey, Northeastern University

**Table 1. Number of Publications with Authors from KRN Institutions**

<b>Top Publications by Number of Publishing Institutes</b>		
<b>Publication</b>	<b>No. of Institutions</b>	<b>No. of Publications</b>
Association for Computing Machinery	10	22
Cambridge University Press	9	10
<i>Washington Post</i>	6	11
<i>Wired</i>	6	14
arXiv (only)	5	20
Association for the Advancement of Artificial Intelligence	5	11
Brookings Institution	5	11
<i>HKS Misinformation Review</i>	5	9
Oxford University Press	5	6
<i>Proceedings of the National Academy of Sciences</i>	5	9
Slate	5	12
Lawfare	4	4
<i>Nature</i>	4	4
<i>New Media and Society</i>	4	8
Nieman Lab	4	8
<i>Social Media + Society</i>	4	6

## From Diverse Fields, One Network

Knight leadership has stated as a central goal that it seeks to “grow a field of research that brings together social science, data science and network analysis, computer science and engineering, humanities and the law to understand and proactively inform responses to the growing role of digital media in our society.” Mapping scholarly connections through citation analysis can provide a panoramic portrait of the expertise in the network toward this goal (see Figure 2). Such analysis can suggest what sorts of expertise are contained within KRN, and what knowledge areas the researchers are bringing with them to help build this new field. As will be explained, the most significant trend is that more expertise in artificial intelligence (computer science) and economics have been infused into KRN, and the study of internet privacy and public administration have also emerged as significant areas of expertise and research.

The history of scientific research suggests that new fields often emerge from the pieces of older, more established fields. As two scholars within KRN have written, “a new field is forming.”<sup>9</sup> But what are this field and its boundaries? Of course, field-building efforts will involve diverse lines of inquiry and various individual and collaborative activities. Field-building efforts include a broad range of research- and policy-focused endeavors that expand the base of knowledge and enlarge the relevant research ecosystem. Academic work is a central focus but certainly not the only area of knowledge creation. That said, this report uses co-citation and co-authorship (in a subsequent section) patterns among researchers in the network as a proxy; it shows the types of fields involved and provides a sense of the shape of the field being built. This type of bibliometric analysis is an established academic subfield and is widely used to examine patterns in knowledge and scholarly networks. Alexander Gates and Indraneel Mane of the Network Science Institute at Northeastern University collaborated on this analysis with the author of this report. We used Microsoft Academic’s fields of study/topics, which is a canonical framework/taxonomy for identifying and analyzing fields, subfields and topics within scholarship. Each field comes from “ancestor” fields, and “related concepts” are also specified, produced by tagging papers and tracking keywords; documentation of each field identified is discussed below.

KRN members articulate their work to be coalescing around various established and still-nascent (and variously named/ambiguously labeled) fields: digital democracy, computational social science, social cyber-security, computational social policy science, critical internet studies, information disorder, internet governance, communications policy, disinformation and misinformation studies, social media studies, algorithmic auditing, and the uses of AI and machine learning in sociotechnical systems. Many researchers did their graduate work in political science, computer science, sociology, engineering, communication studies or public policy and legal studies.

For the first KRN report, the analysis identified and analyzed only the 60 core researchers affiliated with the core 11 academic institutional grantees; they had a total of 4,057 publications. However, for this second assessment report, there were 324 researchers identified for analysis (across the entire network of 57 grantees), and they had 11,457 publications in their research careers. This means that the analysis here works with much larger data (13,624 co-citation links among publications originally, versus 46,528 links now).

In Figure 2, we see a bird’s eye view of expertise in KRN. Each node (dot) represents a publication.<sup>10</sup> If there is a link present between any two dots, this means they both were cited together by other articles. The thickness of links is proportional to how many articles have cited those two publications (dots). Overall, the graphic represents a little under half of all the total career publications of KRN researchers—the other, unrepresented portion of their publications are spread across increasingly smaller subfields and for clarity have been excluded.

9 Nathaniel Persily and Joshua A. Tucker, “Introduction,” in *Social Media and Democracy: The State of the Field, Prospects for Reform* (Cambridge: Cambridge University Press, 2020), 1.

10 The category labels in Figure 2 come from Microsoft Academic’s fields of study/topics (some field names have been slightly modified for clarity), <https://academic.microsoft.com/topics>. For more on each individual field named, see: Artificial Intelligence, <https://explore.openalex.org/concepts/C154945302>; Communication Studies (Public Relations), <https://explore.openalex.org/concepts/C39549134>; Law, <https://explore.openalex.org/concepts/C199539241>; Political Economy, <https://explore.openalex.org/concepts/C138921699>; Social Psychology, <https://explore.openalex.org/concepts/C77805123>; Digital Platforms (world wide web), <https://explore.openalex.org/concepts/C136764020>; Industrial Organization, <https://explore.openalex.org/concepts/C40700>; Public Administration, <https://explore.openalex.org/concepts/C3116431>; Computer Security, <https://explore.openalex.org/concepts/C38652104>; Media Studies, <https://explore.openalex.org/concepts/C29595303>; Internet Privacy, <https://explore.openalex.org/concepts/C108827166>; Econometrics, <https://explore.openalex.org/concepts/C149782125>.

What does this complex graphic and analysis all mean? Several things emerge, especially when we compare year-over-year analyses. Last year's report showed that Digital Platforms (scholarship that focuses on, for example, the web, social media or internet-based software) was at the top, meaning that the greatest amount of research expertise—the collective publication history of everyone in KRN—was in that category. But as more researchers have entered KRN—and as this analysis has sought to include the entire network, now numbering 324 research authors—web-focused/Digital Platforms scholarship falls to 6th place, and Artificial Intelligence (computer science) moves from 2nd to 1st place. Put simply, as the total universe of author publications expanded for KRN, there became more work evident on computer science subjects such as algorithms and machine learning. New fields have also entered the top categories this year, including industrial organization, public administration, internet privacy and econometrics. Of course, papers often relate to multiple fields; each paper was given a single final label for the analysis/visualization based on which of its related fields had the largest size in the network.<sup>11</sup> The top most co-cited papers within the network post-2020 (after KRN began) relate to topics such as fake news, misinformation, political advertising, algorithmic content moderation, racial issues on social media, COVID-19 misinformation and bots online.<sup>12</sup>

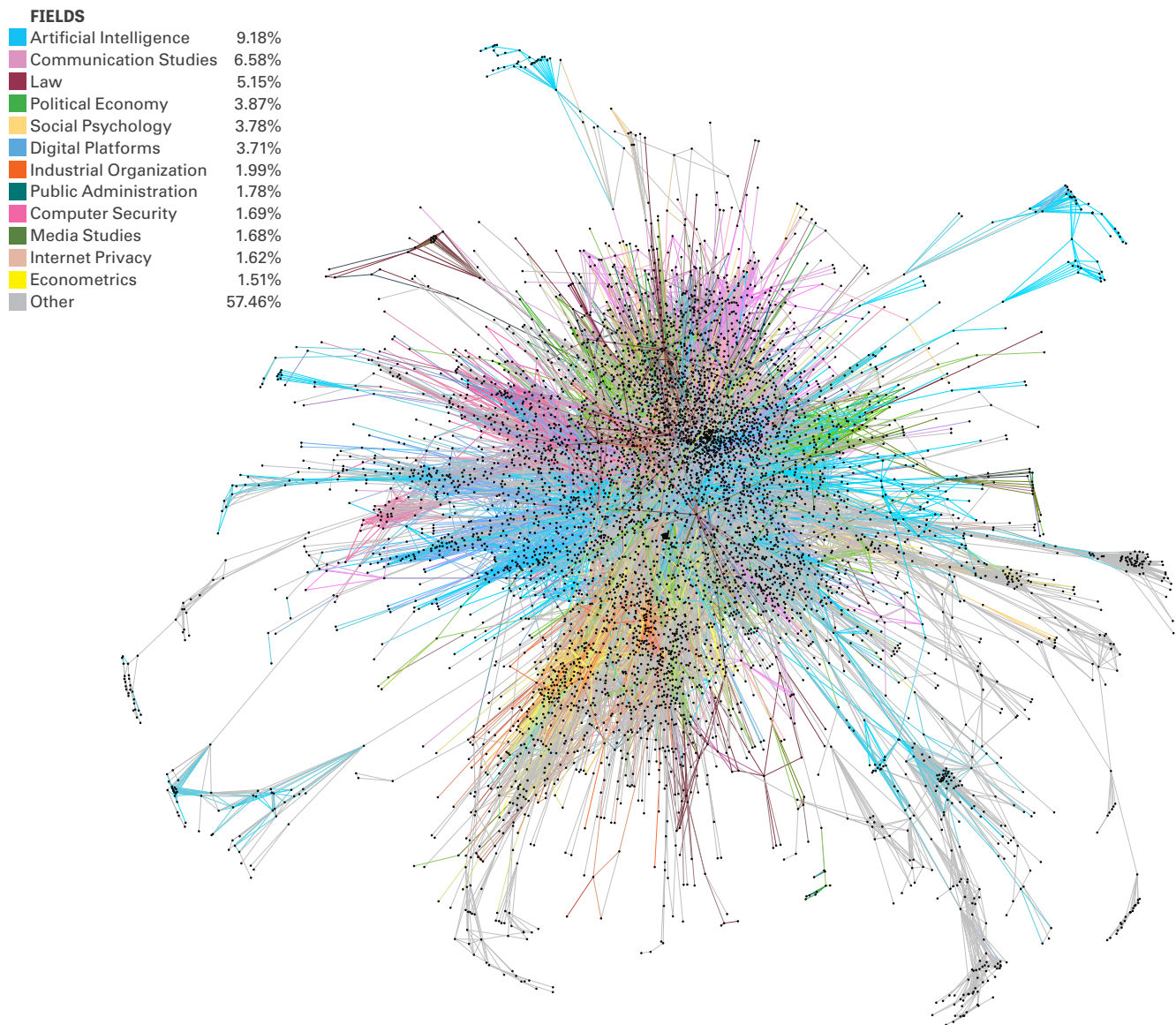
<sup>11</sup> At a technical level, the analysis proceeded as follows: We first kept all multiple field memberships and ranked the fields by size. Then we assigned each publication to the largest field to which it was originally labelled. It is a rough heuristic, but it works for identifying consistent communities as a publication is more likely to be co-cited along with publications in larger fields.

<sup>12</sup> For a sense of the most co-cited papers from KRN post-2020, see: D. Freelon, M. Bossetta, C. Wells, J. Lukito, Y. Xia, and K. Adams, "Black Trolls Matter: Racial and Ideological Asymmetries in Social Media Disinformation," *Social Science Computer Review* (April 2020); T. Li, C. Faklaris, J. King, Y. Agarwal, L. Dabbish, and J. I. Hong, "Decentralized Is Not Risk-Free: Understanding Public Perceptions of Privacy-Utility Trade-Offs in COVID-19 Contact-Tracing Apps," *arXiv preprint arXiv:2005.11957*; E. F. Fowler, M. M. Franz, G. J. Martin, Z. Peskowitz, and T. N. Ridout, "Political Advertising Online and Offline," *American Political Science Review* 115, no. 1 (2021), 130–49.



Figure 2. Mapping Expertise in KRN through Co-Citation Analysis

Visualization of the network of 324 core researchers working within the Knight Research Network, their 11,457 publications as of August 2021, and their citing publications.



Indraneel Mane, Alexander Gates and John P. Wihbey, Northeastern University

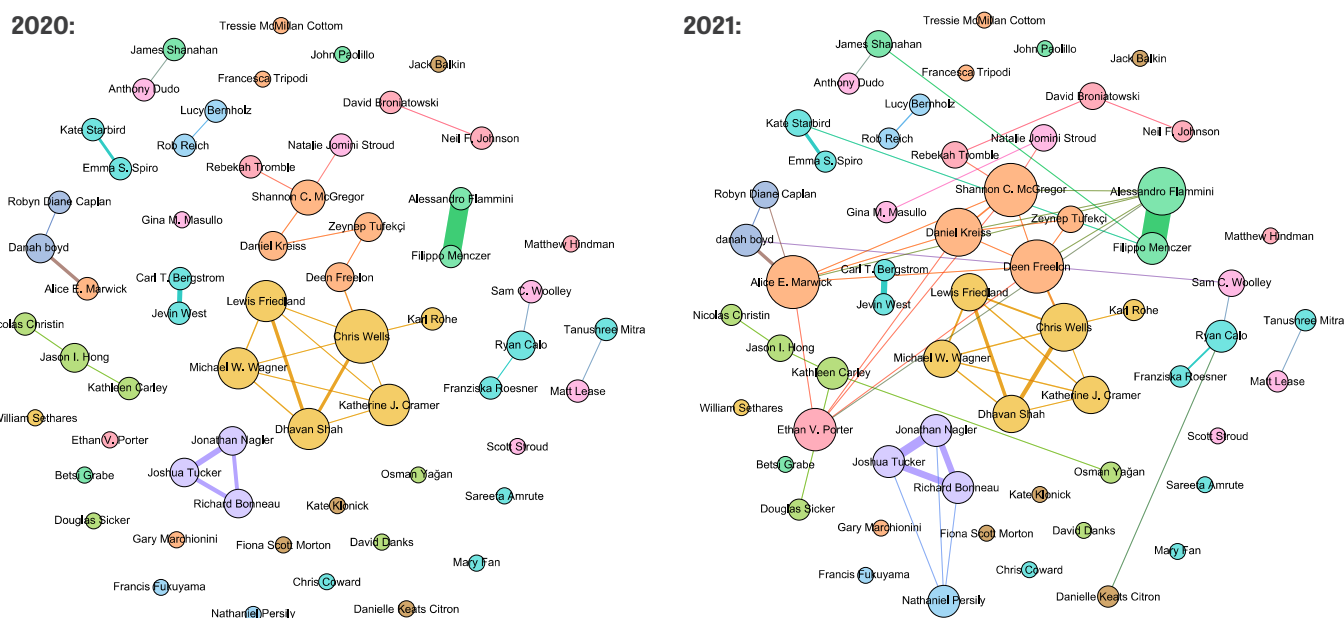
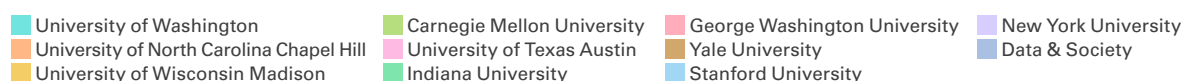
This picture of disciplinary expertise is incomplete. It is worth bearing in mind, of course, that what KRN is also doing in this regard is as-yet unseen in the data. KRN researchers are also training the next generation to be full-fledged researchers who then become leaders in this field. In an interview, one KRN researcher put it this way: “You see centers that are training students now that come from various backgrounds, from the social sciences, from computer science, from the humanities and arts. And they’re getting excited. They’re starting to lead efforts to come up with research questions, and they’re looking for positions that sort of continue that work as postdocs and as faculty members. So, I think the state of the field is in this initial growth phase.” A typical doctoral-postdoctoral timeline takes seven to eight years, so this “growth phase” is likely to last for some time, even as KRN is highly productive in the short term.



# II. Strategic Goal 2: Building Network Connectivity

In the 2020 assessment report, 60 researchers were identified as central KRN researchers (e.g., principal investigators, faculty and fellows). The analysis found that there were sparse links among the persons in this new network. However, just a year later, this baseline group shows signs of increasing connectivity, and the number of links roughly doubled (33 links in the 2020 network, and 59 links in 2021). Of course, some authors do important work in subfields and single-author most of their work, and so this diagram should be interpreted carefully. There are also many collaborations that have not yet completed the publication cycle and therefore are not counted in the data. But one thing the 2020 vs. 2021 comparison (see Figure 3) does illustrate is a promising pattern of community connectivity. The teams at CITAP, CSMaP, and OSoMe, among others, are all helping drive this increase in connectivity.

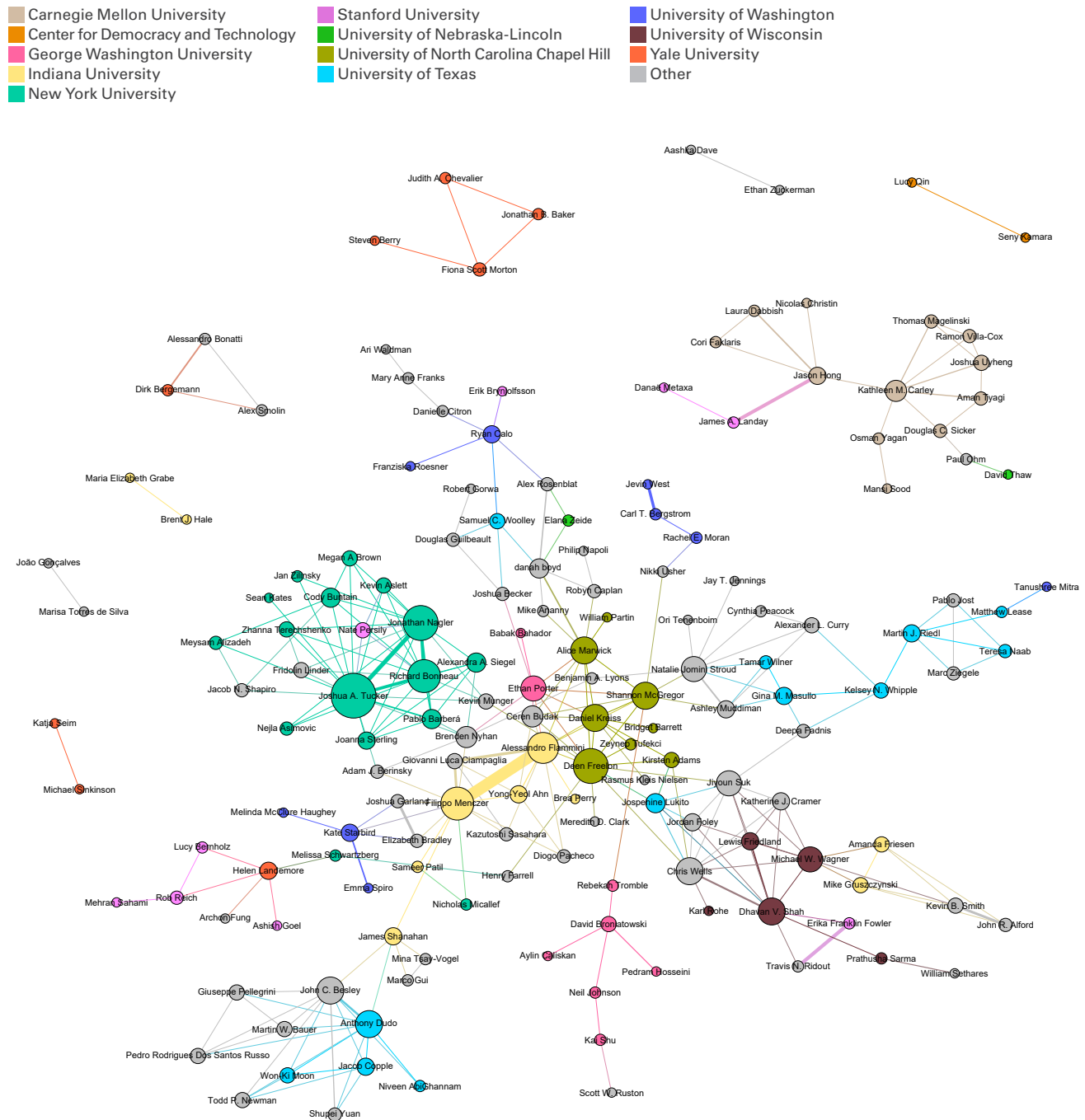
**Figure 3. Ties Among Core Academic Researchers: Comparing Change Over Time of Co-Authorship**



Indraneel Mane, Alexander Gates and John P. Wihbey, Northeastern University

As mentioned, for a newly expanded analysis, 324 authors of research products (including co-authors who are external to the funded institution but worked on a KRN-funded project) were identified over the period studied. The analysis in Figure 4 shows only researchers who had at least one tie (link) to another researcher. In this graphic, we see 162 nodes (authors) with 292 links or ties between them. This means about half of the researchers in KRN have co-authored with at least one other KRN member or affiliated researcher.

**Figure 4. Co-Authorship Ties Among Current Researchers Across Knight Research Network**



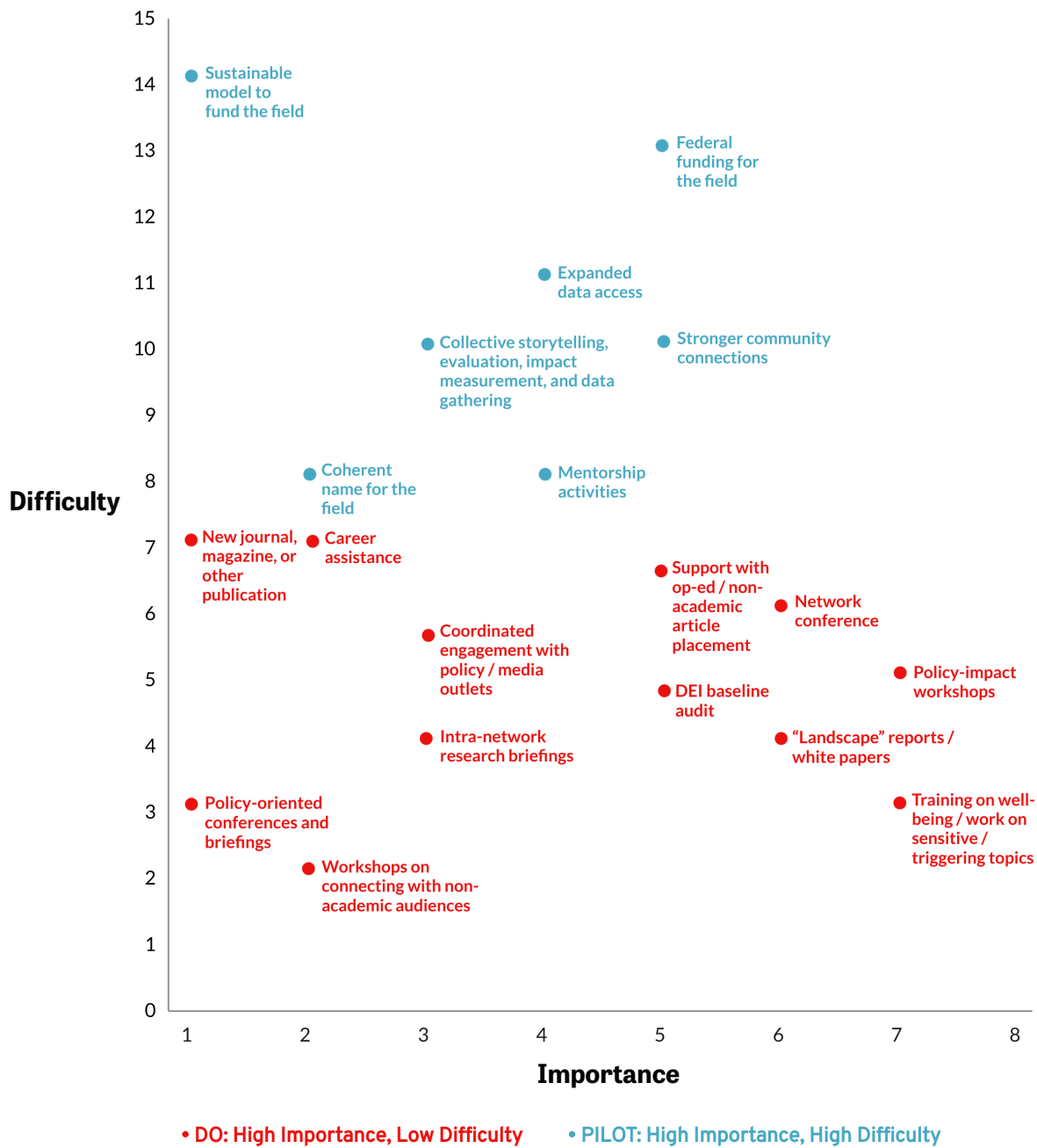
Indraneel Mane, Alexander Gates and John P. Wihbey, Northeastern University

Knight Foundation has stated that it seeks to build infrastructure that fosters collaboration and debate in the field through opportunities for a growing network of scholars and experts to share and exchange knowledge. In the interviews conducted for this report, teams across the country described numerous exchanges of ideas through online conferences and panels. One researcher interviewed said: “We run two speaker series throughout the academic year, and we host around 100 to 120 events every year, over these last two years. We staffed many of those events with people from the network, and it’s a pleasure.” This sort of attitude now pervades KRN, and a conscious effort to connect was consistent throughout stakeholder interviews. However, the global health crisis has significantly held back the building of human capital and closer relationships. As another KRN researcher notes: “One of the things that we had really hoped we would be able to do at our center is focus a lot on convening: Bringing KRN members together in person to think about our research and our policy and media folks for [doing] work together. But the pandemic has really put a brake on that piece of the work.” Knight has committed to establishing a field-wide conference as in-person gatherings become safer.

## “Better Together”

Beyond events and convenings, there is the more substantive issue of generating cross-institutional collaborations. Many of these are ongoing, but it is still the case that some researchers hope for deeper connections; many feel it is the glue that will help KRN really accelerate in the years ahead as a research community. Some of the general institutional “incentives”—the various pulls and pushes of tenure and promotion, and pursuit of individual funding—are not always aligned toward cross-network collaborations for their own sake. Along these lines, one KRN researcher commented in an interview: “I’ve been a little disappointed that there hasn’t been more direct collaboration. It’s been more sharing than joint work. So, we’ve been trying to change that a bit.” Multiple interviewees expressed some amount of frustration that while senior administrators are deeply invested in knitting together KRN and increasing connectivity, some senior researchers are more invested in working with long-time collaborators whose relationships precede KRN’s formation. There is not always incentive to do cross-KRN collaboration for its own sake, and the grants given to KRN were individual, not cross-institutional. (By contrast, some National Science Foundation programs require cross-institutional teams, precisely to try to create research communities and ecosystems.)

That said, KRN’s blueprint white paper, *Better Together: A Vision for Collaborative Structures Across the Knight Research Network*, has helped to set in motion a variety of substantive group workshops on topics such as communicating research and engagement with policymakers. These workshops have been hosted and attended by numerous KRN members. The report also represents an exercise in thinking about a wide variety of collaborative activity, and the authors divide coordinated activities along degrees of difficulty and areas to either “do” or “pilot” (see Figure 5, from *Better Together*).

**Figure 5. KRN's *Better Together* Report: Proposing Activities to Develop a More Robust Network****DO vs. PILOT**Credit: J. Carter, et al., *Better Together* (2021)

Further, the June 2021 metrics workshop stimulated broad discussion of the network's goals and the way it might understand success—and tell its story—in the future.<sup>13</sup> The workshop's summary report notes: “It may be best to develop a system or framework for setting metrics, such as a structured and consistent set of questions organizations answer for themselves as an exercise to develop the best metrics for their goals and theories of change.” More community dialogue about developing such a framework and set of questions could certainly help to bring greater connectivity and shared identity in the years ahead.

With respect to boosting connectivity among KRN members, another issue that could be examined is the state of the digital assets and communication pathways in the network. In the interviews, a significant issue that emerged was limited awareness and visibility among teams across the network. Currently, a single email listserv is used to bring items to the group's attention. There is no central coordination of this, per se, and many KRN members say that there seem to be no articulated rules for usage and no particular cadence to it. Nearly everyone interviewed said the listserv is useful, but there should be more tailored and interactive pathways for interest groups. The listserv does not constitute a true medium of exchange, and most use it to publicize new research products or events. Interviewees report that it is often unclear what other teams are doing, and there is no easy way to figure it out (Twitter and the email listserv provide important but somewhat random insights, KRN members report). Further, Knight hosts a web landing page for the group, but it is not regularly updated. Any new systems and infrastructure that are implemented for KRN might do well to heed research insights about organizational communication. The canonical principles for forming and sustaining more informal or loosely coupled knowledge and learning networks—what are sometimes called “communities of practice,” of which KRN is a particular type—are that the community should offer entry points at different levels of participation, be designed for evolution and develop a distinctive community rhythm or cadence.<sup>14</sup>

<sup>13</sup> “Metrics Workshop: Knight Research Network,” summary report (2021), <https://bit.ly/KRNMetricsWorkshop2021>.

<sup>14</sup> E. Wenger, R. A. McDermott, and W. Snyder, *Cultivating Communities of Practice: A Guide to Managing Knowledge* (Boston: Harvard Business Press, 2002); E. Wenger and W. Snyder, “Communities of Practice: The Organizational Frontier,” *Harvard Business Review* 78, no. 1 (2000): 139–46.

# III. Strategic Goal 3: Connecting Research to Practice

The tangible impacts of KRN can be measured across a variety of dimensions over the period studied regarding bringing research to the realm of practice. Core grantees served as experts and sources in 1,358 news stories, providing a growing and vital base of trusted expertise for journalists reporting on complex socio-technical issues. KRN members continue to brief policymakers in Congress, the Federal Trade Commission, the National Science Foundation, the European Commission, the U.K. House of Lords and other governmental bodies. Their ideas and findings have influenced legislative and regulatory language at many levels. Indeed, network leaders have informed historic social media transparency legislation now under consideration in the U.S. Senate. Institutional grantees (14 pillar or core institutions) alone had 582 public speaking engagements at research conferences, government hearings and workshops with policymakers and industry, who regularly consult KRN members on policy and technical issues.

KRN members have continued to give briefings and have workshop interactions with social media and technology companies, and several leading scholars continue to drive a major scholarly 2020 election-related project in collaboration with Facebook/Meta Platforms. University of Washington and Stanford University teams combined on the landmark Election Integrity Partnership (EIP), providing the most comprehensive monitoring of the role of mis- and disinformation in the 2020 U.S. elections (amplified through regular press briefings). Former U.S. Cybersecurity Infrastructure Security Agency director Christopher Krebs called EIP's final study "the seminal report on what happened in 2020, not just the election but also through January 6."

Knight Foundation's significant investments of \$1 million or more in three think tanks in Washington, DC, have also begun to bear fruit. Researchers supported by the Center for Journalism & Liberty, part of Open Markets Institute, published 17 articles and research reports, in addition to three full-length books. Their work helped lead to the founding of the National Trust for Local News, which aims to support community-level journalism. The Center has continued to focus on policy changes that can support quality journalism, address problems with the online advertising market, and sharpen policymakers' focus on issues of news access and inequality. Meanwhile, R Street Institute has produced research reports and articles on issues such as content moderation, played a key role in helping to coordinate KRN activities, and held workshops and convenings to advance multi-stakeholder internet governance work on issues such as content moderation policy. R Street has also played a key leadership role specifically in the organization of the field-wide Knight conference. Further, the Center for Democracy and Technology (CDT) in Washington, DC, completed four major research projects, publishing reports and holding related workshops, public events, press engagements and policy meetings to disseminate the research into relevant hands. Topics included moderation in encrypted communications systems

and the relationships among online disinformation, race and gender. CDT also grew and strengthened its Fellows Network. CDT regularly advises policymakers, regulators and industry on new policies and provides feedback on new initiatives.

## Smaller Grants: Outsized Impact

Knight has sought to complement its institutional grants by funding related research projects headed by high-impact law and policy scholars, as well as other social scientists whose work bears on technology regulation. The fruits of these investments are already apparent in many cases. Kate Klonick, a law professor at St. John's University and a fellow through Yale's KRN-sponsored Information Society Project, has published numerous widely read articles, including in the *Yale Law Journal*, the *New Yorker*, and the *Washington Post*. Between June 2020 and August 2021, she participated in 60 panels and speaking engagements, including government testimony, and made more than four dozen television, radio, print, online and podcast appearances. Another prolific scholar, Mary Anne Franks, a law professor at the University of Miami, has seen her ideas turned into concrete policy goals and legislative language, including for the agenda of President Biden's Gender Policy Council and the Senators Mark R. Warner, Mazie Hirono, and Amy Klobuchar's SAFE TECH Act. Having spent 2020 and early 2021 briefing numerous U.S. senators and regulatory agencies on his legal research on platform regulation, Olivier Sylvain of Fordham Law School was named Senior Advisor to the Chair of the Federal Trade Commission.

There were many other KRN projects connecting research and theory to practice and the policy world. These can be loosely categorized according to domains or areas of focus.

### Government policy for social media:

- Philip Napoli at Duke University developed and circulated a policy proposal that involves treating aggregate social media user data as a public resource, an idea that is being examined by policymakers and regulators, such as the Federal Communications Commission.
- The Copia Institute has been researching internet governance policy issues and has advised industry on how decentralized web innovations might be structured. Copia has also been publishing a [major series of white papers at Techdirt on content moderation](#).
- At Harvard's Shorenstein Center on Media, Politics, and Public Policy, two former policymakers, Phil Verveer and ex-FCC chairman Tom Wheeler, issued a major report on digital platform regulation, which received wide public and press attention.
- The Tech, Law & Security Program, at American University's Washington College of Law, published a report that provides a technical primer on the full ecosystem of online content dissemination and moderation. This was followed by seminars that engaged industry and civil society actors.
- The NYU Stern Center for Business and Human Rights published a pioneering report on labor issues and content moderation. Both during the research and following publication, the project directly engaged social media companies and industry experts.
- Ellen P. Goodman at Rutgers Institute for Information Policy & Law has been researching how to slow the transmission of misinformation and has advised Congressional staff on related legislative language based on the research.
- Public Knowledge has developed research relating to online harms and developed



model legislative language for related policies. Beginning in early March of 2020, it tracked and reported on the efforts of 13 digital platforms to counter misinformation about COVID-19; the team provided policy analysis on COVID-19 to the House Energy & Commerce Committee.

### **Asymmetrical impacts and harms:**

- The Joint Center for Political and Economic Studies convened Black community leaders and policymakers to discuss challenges and solutions and produced weekly summaries of relevant policy developments. The Center engaged with numerous policymakers, regulators and members of Congress on issues such as support for Black small businesses, workers and voters; the Center saw a number of these engagements lead to changes in law and policy.
- A team at Howard University has been researching the exclusion of Black people from the social media research ecosystem. The team conducted survey research, gave ten presentations at conferences, developed courses and gave multiple media interviews.
- At UCLA's Center for Critical Internet Studies, co-founders Safiya Noble and Sarah Roberts were appointed to numerous external expert groups where they will help formulate policy recommendations and guide research. A research project on human rights, racial equality and emerging technologies provided a foundation for recommendations presented before the United Nations.

### **Regulation of wider technologies:**

- A member of the Heritage Foundation's Center for Technology Policy team testified on facial recognition technology and its use by law enforcement in front of the House Subcommittee on Crime, Terrorism, and Homeland Security. Center experts have also worked on Capitol Hill to explore Section 230 reforms and issues of censorship by technology companies and explain complicated and emerging cybersecurity and ransomware issues.
- Lincoln Network launched its second Policy Hacker fellowships program, which convenes groups of technology professionals and promotes interactions with the policy, government and research worlds in order to increase knowledge of technology regulation.
- The Digital Innovation and Democracy Initiative of the German Marshall Fund of the United States published research reports on civic infrastructure, platform design, artificial intelligence and facial recognition, algorithmic discrimination and new approaches to issues in cybersecurity and computing, much of which was presented to policymakers.
- The American Antitrust Institute issued two companion reports designed to give practical guidance to government policymakers on combatting the economic and social power wielded by dominant digital technology firms.
- The American Enterprise Institute for Public Policy Research convened its Digital Governance Working Group, which featured a half-dozen meetings with policymakers and experts. Affiliates also authored numerous essays on technology regulation.
- The Stigler Center for the Study of the Economy and the State, at the University of Chicago Booth School of Business, published new articles in its ProMarket series on topics such as data policies and digital platforms.

## Accelerating Funding in the Field

A final area of practical impact by KRN might be examined: the way it has expanded funding and support for the ecosystem itself. The National Science Foundation (NSF) launched a 2021 Convergence Accelerator program around the theme of Trust & Authenticity in Communication Systems. This effort, while independently conceived and launched, was informed by KRN's activities, and the two programmatic efforts align in terms of goals. An initial 2021 investment of nearly \$10 million (to be followed by further government investment) is bolstering the research field, with an additional \$20 million to \$30 million anticipated in the coming years. Among the 12 NSF-selected projects receiving pilot grants in this program, five were either led by KRN members or included them as a major investigator.

Many KRN grants were contingent on matching Knight's support, and most institutions have met or are on track to meet their obligations by securing additional resources from a diverse range of sources. All told, Knight's grants have catalyzed nearly \$40 million in matching commitments to date. For example:

- The University of Washington Center for an Informed Public has received backing from the William and Flora Hewlett Foundation and Microsoft, and it is receiving more than \$2 million through the NSF's Secure and Trustworthy Cyberspace program.
- The UCLA Center for Critical Internet Inquiry is receiving nearly \$3 million from the Australia-based Minderoo Foundation.
- Indiana University's Observatory on Social Media has found funding through DARPA, Open Technology Fund and Vaccine Confidence Fund.
- New York University's Center for Social Media and Politics has been funded by the Charles Koch Foundation, Craig Newmark Philanthropies, National Science Foundation and Russell Sage Foundation.
- Carnegie-Mellon University's IDEaS Center has received funding from Accenture, the Office of Naval Research and the Air Force Research Laboratory.
- The University of Wisconsin team has a \$750,000 award under the NSF Convergence Accelerator Program.
- George Washington University's team also received a \$750,000 award under the NSF Convergence Accelerator Program.

# IV. Organizational Progress from Year 1 and Current Opportunities

This final section provides an update on recommendations from the Year 1 report and explores new areas and challenges that may need to be addressed. The Year 1 report made recommendations in five areas: data access from tech companies; network coordination and capacity, or KRN communications infrastructure; increasing diversity of KRN members; field-building, with a focus on diverse and non-partisan funding for additional network members; and concerns over publication speed (scholars prematurely publishing non-peer-reviewed findings). As will be discussed, four of these five areas of concern surfaced repeatedly during the research for this Year 2 report. Issues of publication speed, while still a relevant consideration for KRN members, did not resurface as a salient issue for Year 2.

Six external experts were interviewed for this report. Their professional domains range across government, industry, academia and philanthropy. Overall, the experts praised the efforts of KRN and noted the catalytic nature of the investments in helping to build this field, creating a vital knowledge base and allowing other funders to consider complementary investments. Experts were also asked for specific recommendations, critiques and advice that could help improve KRN in the years ahead, and that is presented here. Additionally, this section synthesizes ideas and critiques voiced by KRN members themselves.

## Data access

Coordination among various efforts by academic and civil society groups to get access to data from technology companies will be crucial. The high-profile coverage of testimony by Francis Haugen exposing Facebook's internal practices and the battle between New York University's researchers in the Ad Observatory and Facebook are among the many events driving this urgent debate.<sup>15</sup> Knight Foundation supported early efforts to expand researcher access to data, like Social Science One, and has been involved more recently in NetGain Partnership efforts to this end. Congress is now considering a legislative proposal by Stanford's Nathaniel Persily that would secure broader access for researchers working in the public interest.

<sup>15</sup> S. Frenkel, "Key Takeaways from Facebook's Whistle-Blower Hearing," *New York Times*, October 5, 2021, <https://www.nytimes.com/2021/10/05/technology/what-happened-at-facebook-whistleblower-hearing.html>; C. Silva, "Facebook Shut Down Political Ad Research, Daring Authorities to Pursue Regulation," *Mashable*, August 8, 2021, <https://mashable.com/article/facebook-nyu-ad-observatory-time-for-government-regulation>.

Yet, even with new governmental mandates, there will need to be consortium infrastructure to get efficiencies for data resources. Too many current data access deals between companies and research centers are negotiated inefficiently, on a case-by-case basis.<sup>16</sup> Because of the lack of data access, there is a limited understanding of how the companies are doing content moderation or the consequences of policy decisions. Therefore, there is little research being produced for public consumption (at least university-based research) about many of the relevant content moderation activities within companies. As external scholars note, “There exists a mismatch between the major interventions taken by platforms—algorithmic downranking, content moderation, redirection, and de-platforming accounts—and those studied by the research community.”<sup>17</sup> The inability to access data creates this mismatch.

## Increasing connectivity

The Year 1 report recommended that Knight seek to increase connectivity within KRN and to consider “an independent coordination body or group.” KRN members themselves have stood up a working leadership group, or steering committee, that has produced, as mentioned, the “Better Together” blueprint for the network. Knight has been working with the group to plan a field-wide conference.

The era of COVID-19 has made it hard to build the social capital that KRN needs. Researchers need to come together in-person for connection and reflection. There is still a relative lack of deeper personal and professional relationships. As the pandemic lifts and gathering becomes safer, Knight Foundation might consider support for retreats among smaller interest groups to help start/re-engage relationships. This report recommends that small groups accelerate the building of social capital and make efforts to gather to make up for lost time. Finally, while participation in joint (mostly virtual) events and co-citation in research work is now a norm, direct co-authorship and shared leadership on projects could still be accelerated. Knight might explore ways to incentivize joint projects that involve multiple teams.

## Network infrastructure and funding

Knight Foundation has a webpage that lists all grantees and archives grantee research submissions. It requires no small amount of manual maintenance for grantees to proactively submit their research to keep current. More could be done to coordinate and automate these efforts. KRN lacks a collective brand or robust digital assets that represent the work. Stronger efforts in this area could attract allies and help the network form greater identity, as it is not always clear, even within the KRN itself, who is doing what and in which area, despite a reasonably active email listserv. Such assets might also help tell the story of KRN and demonstrate return on investment.

More tailored communications pathways (e.g., researchers studying online harms, or economic and antitrust issues, etc.) might be created and network members asked to serve as moderators and coordinators for working groups. The KRN listserv continues to spur important contributions and awareness, but, as the network grows, more granular communications networks might be formed.

<sup>16</sup> Other efforts, such as newly funded projects through the National Science Foundation, and through Mozilla, are taking various approaches to the problem. For an overview, see E. Shapiro, et al. *New Approaches to Platform Data Research*, NetGain Partnership (2021), <https://www.netgainpartnership.org/events/2021/2/26/new-approaches-to-platform-data-research>.

<sup>17</sup> L. Courchesne, J. Ilhardt, and J. N. Shapiro, “Review of Social Science Research on the Impact of Countermeasures against Influence Operations,” *Harvard Kennedy School Misinformation Review* (2021).

Finally, many leading researchers and experts urge KRN and Knight to help set up shared development capacities, so that funding from various sources, including industry, could be disbursed through a trusted intermediary. This was originally a shared aspiration among grantees, but as yet there appears no clear pathway forward. This report recommends that KRN members and Knight leadership continue to communicate about the funding picture and develop new strategies or pathways for grantees in the years ahead.

## Translational research

As noted in previous sections, KRN members have testified before and briefed policymakers hundreds of times, and some have provided specific inputs into policy language and legislation. However, despite notable efforts to engage the policy world and many successes, KRN still feels to some experts to be removed from the more insider and direct conversations going on in technology and communications policy, particularly those in Washington, DC. There is a concern that the high volume of scientific research now being produced by KRN is not being matched with comparable resources to translate findings into policy and legislation. This report recommends additional support for translational capacity.

Further, researchers are focused, as experts say they should be, on harms and critical inquiry into social media companies. Yet in addition to critical investigations, there is a need for more creative thinking about model industry policy. Relatively little research suggests practical and prosocial metrics that could provide guidance to companies trying to improve. KRN members regularly advise, for example, Congress and regulatory agencies, but there is currently no parallel set of established venues or fora where KRN can consistently provide advice and feedback to groups within the technology and media industries. Most industry interactions happen on an individual basis, often quietly, and with little tangible incentive for researchers. This report recommends exploring the establishment of a joint/collective industry-academic venue for presentation of research and exchange over points of interest.

## Diversity and relevance

Responsive to recommendations contained in the Year 1 report, in July 2021 Knight Foundation created an open call for new research proposals (up to \$175,000) titled Combatting Misinformation in Communities of Color, which sought to expand the scope of the research network along these crucial dimensions. As research and reporting have revealed more about the consequences of emerging communications technologies since KRN's launch in 2019, increasing focus has been on how already disadvantaged communities suffer particular harms. As part of the announcement of that open call, Knight Foundation also announced a \$1 million grant to the Joint Center for Political and Economic Studies, a think tank that focuses on creating "ideas to improve the socioeconomic status and civic engagement of African Americans." Still, experts and members interviewed for this report strongly urge Knight and KRN to continue to recruit, support and fund more researchers of color (and non-male-identifying researchers), and Knight leadership expresses commitment to this principle. The initial round of funding in 2019 was informed by diversity and inclusion goals with regard to race, gender and ideology, and a chief goal was to create a more diverse pipeline in a research and policy space where the lack of diversity along many dimensions was endemic. Full KRN demographic data has not yet been gathered as the network has greatly expanded in terms of personnel, and such data might be gathered in the future.

A related issue is the well-being and status of both researchers and journalists from marginalized groups, both of whom are facing attacks online. More research and capacity might be fostered to help understand and address these problems, so that the research, technology and media fields are able to increase diversity and do not lose vital personnel. Several research groups within KRN report focusing on these issues of well-being for their own researchers and related communities, as studying issues such as hate speech and disinformation up close can take a toll on individuals. Planning sessions and discussion of these issues at the field-wide conference are set to tackle such challenges.

## Metrics and network value

As KRN's workshop and blueprint white paper in 2021 suggest, the network needs to coordinate more and engage in further reflection about collective impact and how best to define success, both individually and collectively. More convenings that can facilitate this are necessary. Per the metrics workshop report, as teams develop their rich stories of impact, customized for each specific context and project, learnings can be developed that can be shared to advance our collective understanding of how to tell KRN's story—and the story of the broader field. This report recommends that KRN continue to focus on communicating the network's value, helping to align along shared interests in impact, and developing common notions of, and metrics for, success.

# V. Conclusion

Through its second year, KRN has already registered myriad accomplishments. There is palpable momentum. The hundreds of studies and articles produced over the period examined for this report stand as a crucial body of knowledge on which the field will be built. Many KRN members began seriously inserting themselves into the policy process and world, across a wide variety of dimensions. Tools and interventions of various kinds in civil society are bringing theory to practice.

Yet this narrative of success should not obscure key points of need and challenge for the network moving forward. The data presented here suggest that there is indeed more co-authorship going on, but Knight might consider how to better align incentives in this respect. KRN also lacks any sort of collective brand or robust digital assets that represent the work, and more communications channels are probably necessary. Stronger efforts in this area could attract allies and help the network form greater identity by telling KRN's story. As KRN's *Better Together* report notes, more capacity building is necessary across the network: "Having built the foundation of a scholarly community, it is time to continue the work and create a more robust network which will ensure the sustainability, credibility, and impact of the field. This will require an investment in . . . shared capacities." Knight Foundation should be attentive to these needs moving forward. In terms of fundraising, as KRN enters its third year, Knight Foundation has tremendous credibility and momentum with stakeholders such as university leadership and should capitalize on this now to ensure sustainability. Overall, KRN is helping to build a strong research and policy ecosystem, with opportunities for further growth and the potential for even greater impact on public policy in the year ahead.



# VI. Appendix

## Methods and Research Design

This study uses a mixed methods approach. It is the second in a series of reports, so one of the chief goals of the research design here is to look at change over time and assess growth, to the extent possible. The author conducted in-depth video interviews with 25 network members and external experts. All 57 organizations within KRN completed a comprehensive online survey during September–October 2021, in which they listed publications, media, speaking engagements and researchers. Network analysis methods were used to examine bibliometric data (citations and authorship), leveraging the expertise in Northeastern University's Network Science Institute. Knight Foundation leadership were consulted throughout and provided feedback on the draft report. Special thanks go to Garrett Morrow, doctoral candidate in political science at Northeastern University, as well as Associate Research Scientist Alexander Gates and graduate researcher Indraneel Mane of the Network Science Institute. The following is a list of interviewees:

Grantee Interviews	Outside Expert Interviews
Sareeta Amrute, Data & Society Research Institute Jack M. Balkin, Yale University Jody Brannon, Open Markets Institute Jenna Burrell, Data & Society Research Institute Kathleen M. Carley, Carnegie Mellon University Julia Carter, University of Washington Deen Freelon, University of North Carolina at Chapel Hill Nikolas Guggenberger, Yale University Eli Lehrer, R Street Institute Filippo Menczer, Indiana University Nathaniel Persily, Stanford University Kathryn Peters, University of North Carolina at Chapel Hill Zeve Sanderson, New York University Natalie (Talia) Jomini Stroud, University of Texas at Austin Dhanaraj Thakur, Center for Democracy and Technology Rebekah Tromble, George Washington University Joshua Tucker, New York University Michael W. Wagner, University of Wisconsin–Madison Jevin West, University of Washington	Jeremy J. Epstein, National Science Foundation Amber French, Media Democracy Fund Michael Pozmantier, National Science Foundation Kathleen Searles, Louisiana State University Peter Stern, Facebook/Meta Platforms Paul Waters, Democracy Fund