

DIGITAL DEMOCRACY: ACCELERATING A NEW FIELD OF KNOWLEDGE

THE KNIGHT RESEARCH NETWORK IN ITS FIRST YEAR

**ASSESSMENT REPORT
JOHN S. AND JAMES L. KNIGHT FOUNDATION
KNIGHT RESEARCH NETWORK, 2019-20**

**JOHN P. WIHBEY
NORTHEASTERN UNIVERSITY
DECEMBER 2020**



**KNIGHT
FOUNDATION**

Contents

Executive Summary	3
I. Overview	5
II. Accelerating a Field: Background and Context	8
III. Network Analysis of Researchers: Baseline Connections	13
IV. Assessment Design	17
V. Outputs: Year One Summaries and Portraits	18
VI. Network Activities and Responses to Disruption	24
VII. Future Considerations for the Field and Funders	27
VIII. Conclusion	33

Executive Summary

Knight Foundation's historic \$50 million investments in 2019, aimed at accelerating a new field of research at the intersection of technology and democracy, have shown encouraging early signs. This report examines progress among the major research institutions that were funded, considers how the grantees responded under challenging conditions through mid-2020, and details concerns and emerging issues that might be addressed in the coming years.

General patterns of activity in this startup phase indicate:

- The grantees on the whole were highly productive during initial stages in the first year, particularly given large-scale societal disruptions. Teams produced hundreds of academic and media publications, saw thousands of scholarly citations and generated broad public impact.
- Researchers provided testimony and advice to numerous lawmakers and regulators, both in the United States and Europe.
- Insights from researchers proved influential in shaping or reshaping some policies and decisions among technology companies and their social media platforms.
- Covid-19 has created hiring, staffing and resource challenges, and some teams could not bring on key personnel. Multiple grantees are concerned that external funding institutions are reorienting priorities and some university budgets are frozen.

The new Knight Research Network (KRN), which knits together the grantees, has certain important baseline characteristics:

- Analysis of publication outputs through summer 2020 shows promising overlap in terms of scholarly and media outlets, suggesting the development of shared intellectual space.
- Network analysis of the scholars from both a co-authorship and co-citation perspective indicates that the KRN's core researchers are diverse in their fields, and they have, to date, infrequently collaborated directly on publications.

In order to ensure that Knight Foundation's investment is maximized over the coming years, certain areas of concern deserve careful attention:

- This assessment finds three chief areas for further consideration: the problem of getting better data access for research, the issue of preprints and the speed of publication, and building sustainable coordination and communications capacity.

- Grantees raise a number of issues for consideration: greater collective efforts around access to technology companies and their data, a need for more capacity to do research translation and communication, and more formal efforts or working groups on diversity pipeline issues to ensure the field is equitable and inclusive.
- Outside experts interviewed for this report voiced several concerns and identified areas that might bear further consideration, primarily relating to data access, avoiding appearances of partisanship in grantmaking, questions about field coherency and the future funding picture for the field.

This report details the activities of the Knight Research Network grantees in their initial stages, with primary emphasis on the 11 institutions that were funded in July 2019, although it also makes reference to others that have subsequently been added to the KRN.

I. Overview

In 2019, Knight Foundation made a historic investment at what turned out to be a critical moment in American society. The foundation's central intention was to advance and organize an emerging research field focused on the intersection of technology and democracy, with particular emphasis on the health of the media-communications ecosystem in the United States and its bearing on an informed citizenry.

The foundation awarded more than \$48 million of a \$50 million commitment in 2019, marked by announcements in July and November of that year.¹ The initial investments included the establishment of five new academic research centers or institutes through a set of \$5 million awards and six more grants of \$1–3 million apiece to boost existing projects at other research institutions and centers. The foundation then announced \$3.5 million distributed across 22 different policy-oriented projects relating to internet governance.² Subsequently, in 2020, more research and policy centers have been added as grantees with complementary or adjacent interests and policy or research agendas.

Together, these 57 different grantees—ranging from new institutes and centers at universities to policy think tanks and individual academic research projects—constitute the new Knight Research Network (KRN).³ (For a sense of the geographical distribution, see Figure 1.) More than 120 research and policy scholars and practitioners form the core of this group as lead or affiliated faculty, project scientists, directors, policy intellectuals and researchers.

With the scale of the investment, the foundation has intended to send a significant message—a kind of call-to-arms—across the academic university, research and foundation worlds that might be catalytic to other organizations also concerned about the state of affairs in the media/social media/communications landscape. Indeed, Knight Foundation's investments brought a variety of funders to the table early on, including the Hewlett Foundation, the Charles Koch Foundation, Microsoft, Craig Newmark, Omidyar Network and others.

The first year for many of the grantees was no ordinary year. The researchers, many working on issues of fundamental knowledge on longer-term projects, were almost immediately compelled to pivot into new intellectual territory and to channel their expertise toward pressing and in many ways existential questions. Roughly eight months into the newly funded work, the Covid-19 global pandemic radically disrupted the various projects and centers, as it did life around the world, forcing these institutions to change a variety of their plans. What the World Health Organization has called an “infodemic,” a contagion of misinformation, also broke out, putting many of these researchers—some of whom are the leading experts on questions of digital democracy and misinformation—at the center of events.⁴ The moment found *them*.

1 “Knight Invests \$50 Million to Develop New Field of Research around Technology’s Impact on Democracy,” Knight Foundation, press release, July 22, 2019, <https://knightfoundation.org/press/releases/knight-fifty-million-develop-new-research-technology-impact-democracy/>.

2 “Knight Foundation Invests \$3.5 Million in Research to Inform the National Debate on Internet Governance and Policy,” Knight Foundation, press release, November 3, 2019, <https://knightfoundation.org/press/releases/knight-invests-million-research-to-national-debate-internet-governance-policy/>.

3 See the Knight Foundation’s website for more information on the Knight Research Network: <https://knightfoundation.org/democracy-in-the-digital-age/>.

4 “Managing the COVID-19 Infodemic: Promoting Healthy Behaviours and Mitigating the Harm from Misinformation and Disinformation,” World Health Organization, September 23, 2020, <https://www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation>.

Of course, many of the researchers in question were already gearing up for a U.S. election year that, given the toxic and confusing atmosphere of the 2016 election, was going to be both fast-paced and consequential for any scholar and policy practitioner working on media, communications and misinformation-related issues. Further, the protests for racial justice/movement for Black lives that began in the summer of 2020 highlighted persistent issues of inequality, access and bias inextricably bound up with media and social media dynamics.

This assessment report focuses on what the grantees did between fall 2019 and July 2020, how they did it, and the effort's wider meaning for understanding the development of this broad field of inquiry—and the attendant problems that currently beset American democracy. This study focuses on the large institutional investments announced in 2019—the 11 grantees that received \$1–5 million and stand at the center of Knight Foundation's research-acceleration efforts, although reference is made to policy centers and other recipients, as well. These early grantees were chosen from a pool of more than 100 applicants through a Request for Proposal process by the Knight Foundation, issued in 2018.⁵

This assessment report's findings and areas of inquiry fall roughly into three categories:

- **Productivity and impact:** The grantees on the whole were highly productive during the first year, particularly given the disruptions and challenges. Their work and activity, detailed in this report, had an impact exceeding any reasonable set of expectations, particularly given the Covid-19 pandemic, for investment in year one.
- **Collaboration and connectivity:** It has been beneficial for these organizations to be convened in the same space, allowing many to find alignment and common direction. It has also been beneficial for society. However, more work needs to be done to build on collaborative efforts, both in terms of coordination and communication for impact.
- **Infrastructure and runway:** Researchers within the KRN are trying to solve the fundamental problem of how to get access to proprietary data, held by large technologies companies, in order to do essential research. Yet the future of these efforts, and this problem space generally, remains uncertain. Further, many of the research centers will need support for years of work beyond the current grant cycle to realize their knowledge goals and achieve the aspirations of the Knight Research Network.

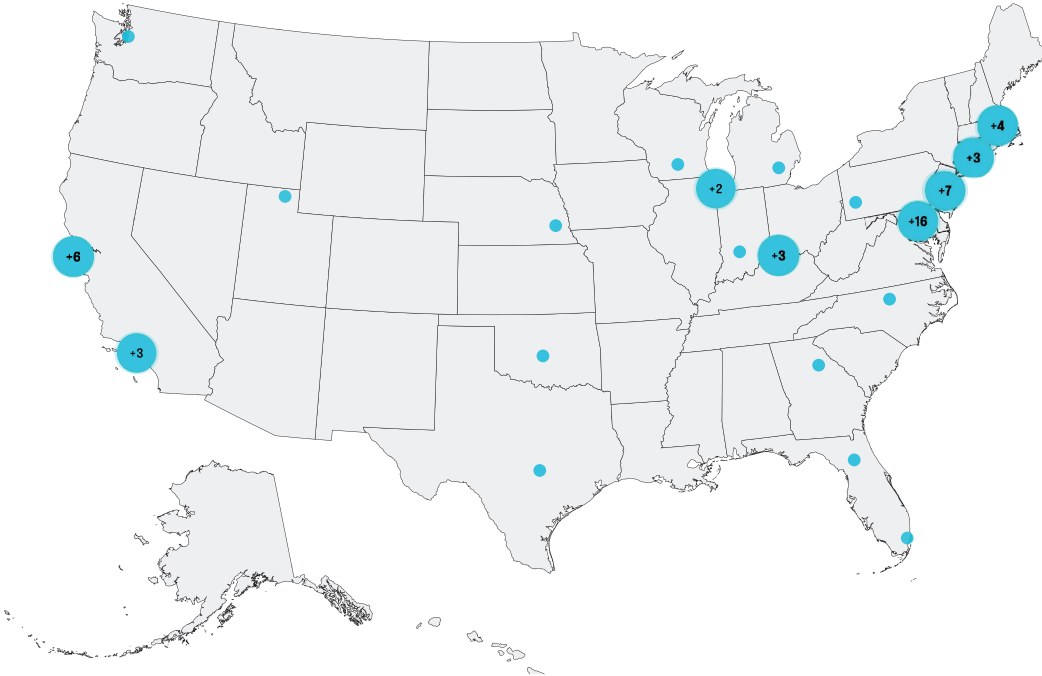
These categories correspond to three key levels of the KRN's operation, providing an analytical framework through which the network might be assessed on an ongoing basis: the level of individual projects, the connections level among projects and the ecosystem level, where economies of scale, shared infrastructure and collective action might be realized.

This assessment is, in any case, very much a preliminary evaluation of the grantees and the Knight Research Network's efforts and investments more generally. The report is intended to show the range of work being initiated and the short-term challenges and shared concerns of the grantees, while also surfacing more enduring issues that may need to be addressed in the years ahead. While this report's analysis is based on extensive surveys, numerous interviews with grantees and outside experts, and data and network analysis, it should be noted that among all the possible areas of philanthropic grantmaking, the funding of long-range research is likely the least susceptible to confident early judgments about success or failure.

⁵ Sam Gill, "Why Knight Foundation Is Investing in a New Field of Study on an Informed Society in a Digital Age," Knight Foundation, October 1, 2018, <https://knightfoundation.org/articles/why-knight-foundation-is-investing-in-a-new-field-of-study-on-informed-society-in-a-digital-age/>.

Figure 1. Geography of the Knight Research Network

The 57 grantee organizations in the KRN. Where there are multiple grantees in the same metro area, the number of grantees is indicated.



Funding Academic Research Centers: The 11 Initial Institutional Grantees

<p>Carnegie Mellon University Center for Informed Democracy and Social-Cybersecurity</p>	<p>University of North Carolina at Chapel Hill Center for Information, Technology, and Public Life</p>
<p>Data & Society Research Institute</p>	<p>University of Texas at Austin Center for Media Engagement</p>
<p>George Washington University The Institute for Data, Democracy & Politics</p>	<p>University of Washington Center for an Informed Public</p>
<p>Indiana University Observatory on Social Media</p>	<p>University of Wisconsin-Madison Center for Communication and Civic Renewal</p>
<p>New York University Center for Social Media and Politics</p>	<p>Yale University Project on Governing the Digital Public Sphere; Thurman Arnold Project</p>
<p>Stanford University Program on Democracy and the Internet</p>	



II. Accelerating a Field: Background and Context

In order to assess the grantmaking in question, with such a large and seemingly abstract goal of building a (yet-to-be-bounded) knowledge field, it is first necessary to define more precisely the context for this major investment. What exactly is this field Knight Foundation intends to accelerate? How might we understand it in concrete terms?

First, consider the traditional image of a scientist. A person sits with others in a lab, all in white coats, and discovers something. By contrast, this has seldom been our image, to the extent one exists, of people who do social science, research on society and public policy. However, the advent of digital systems and the data they produce have brought with them opportunities to study humans and societies at scales previously unimaginable.

Some scholars compare this moment to the discovery of the telescope or microscope. Using new digital instruments and big data, researchers can ask whole new questions about individual- and collective-level human behavior. And qualitative and policy fields must now sit close to these technical inquiries to formulate accurate interpretations and targeted recommendations.

Yet the digital systems in question have also brought with them vexing problems that require new tools to solve—for example, bot armies, digital election hacking, disinformation campaigns, algorithmic bias, automated systems that polarize voters and artificial intelligence-driven fake videos, just to name a few.

To address many of these emerging problems, the social scientist studying digital democracy issues—the new “computational social science,” as it has been called⁶—will likely need to look a little more like the traditional lab researcher in the physical or life sciences mode: in a lab with a team using shared infrastructure in order to ask questions and make discoveries. Because the questions will be so varied, however, researchers may also need their teams to be interdisciplinary, leveraging expertise from fields such as data science, sociology, engineering, political science, legal studies, journalism studies and psychology to make significant insights. The Knight Foundation grants, at least the research-oriented ones, are made with an eye toward this altered paradigm—toward the need for a new knowledge field to come into being.

One sign of a cultural shift in this direction may be found on the “demand” side of the equation, in the norms and routines of those setting the public agenda. Over the past couple of years, it has become increasingly routine for news media members and policymakers to consult a new class of experts for advice on how to understand a variety of bewildering problems relating to the online world, much in the way that professional economists are regularly consulted on key financial and public spending problems. We increasingly see these digital democracy and computational social scientist experts quoted in the press or testifying in various government committees. And many of these are Knight Research Network grantees.

⁶ David Lazer, Alex (Sandy) Pentland, Lada Adamic, Sinan Aral, Albert Laszlo Barabasi, Devon Brewer, Nicholas Christakis, et al., “Life in the Network: The Coming Age of Computational Social Science,” *Science* 323, no. 5915 (2009): 721.

Yet it is also clear that there is a great deal of “translational”—making sense of the research—and policy implementation work that needs to be done. Knight’s vision is for expertise to go beyond the lab walls and become embedded in the work of staff in legislatures and NGOs, in regulatory agencies and technology companies themselves, and in the courtroom and classroom alike. Knight’s simultaneous funding of both research and policy shops together suggests that their model for success in knowledge diffusion goes beyond mere passive “trickle-down” approach and aims at pushing flows through a multidirectional network. How well this more forward-leaning model works will need to be assessed on an ongoing basis.

The idea of birthing a class of experts and “building a field” as a strategic move toward wider impact in grantmaking is not as novel as it may at first seem. Knight Foundation Senior Vice President and Chief Program Officer Sam Gill has articulated the foundation’s conscious effort to emulate the birth of the field of public health, which, as he has noted, began with a \$1 million investment from John D. Rockefeller to fight hookworm disease.

“Like the Rockefeller Foundation of 100 years ago,” Gill said at the opening of the new University of Washington’s Center for an Informed Public, one of the \$5 million grantees, “We hope that this investment is the beginning of new insights, new knowledge and new paradigms that can help our democracy not only survive but thrive in this new age. We hope to accelerate the work of current scholars, inspire new entrants to the field, and equip a generation of individuals who can work across sectors to ensure that technology serves the interests of an informed democracy.”⁷

There are other parallels. Warren Weaver, director of the Division of Natural Sciences at the Rockefeller Foundation, coined the term “molecular biology” and, between 1954 and 1965 alone, funded fifteen scientists who received Nobel Prizes for their work in the emerging field.⁸ Likewise, the Ford Foundation catalyzed the field of public interest law in the 1960s and 1970s.⁹ It also made a portfolio of grants to help build up academic national security studies centers during the Cold War, a field-building effort that ultimately waned as societal context changed.¹⁰ Currently, the Ford Foundation is attempting to catalyze a field of “public interest technology” within universities, inspired by its prior work in law.

The idea of a field coming together from parts of others also has recent precedent. Cognitive science grew in this way in the 1970s, partly through the investments of the Alfred P. Sloan Foundation, and bioengineering grew from a similar coalescence of fields over time.¹¹ More recently, both the Sloan Foundation and the MacArthur Foundation have made key investments to help build the emerging field of data science. Of course, such field development is one mission of some government granting agencies such as the National Science Foundation (NSF).

It should be noted, however, that the Hewlett Foundation has learned important lessons through its recent experience in trying to catalyze a field of disinformation studies.¹² There are issues that both the

7 “Advancing a New Field: Sam Gill at University of Washington’s Center for an Informed Society Public Opening,” December 3, 2019, <https://knightfoundation.org/speeches/advancing-a-critical-new-field-of-research-sam-gill-at-the-university-of-washingtons-center-for-an-informed-public-opening-event/>.

8 Charles C. Mann, *The Wizard and the Prophet: Two Remarkable Scientists and Their Dueling Visions to Shape Tomorrow’s World* (New York: Alfred A. Knopf, 2018), 159.

9 “Ford Foundation Grantees and the Pursuit of Justice,” Ford Foundation, <https://www.fordfoundation.org/work/learning/research-reports/ford-foundation-grantees-and-the-pursuit-of-justice/>.

10 Michael C. Desch, *Cult of the Irrelevant: The Waning Influence of Social Science on National Security* (Princeton, NJ: Princeton University Press, 2019), 212–13.

11 R. M. Nerem, “The Emergence of Bioengineering: The Melding of Engineering and the Biological Sciences will Require Bold and Creative Changes in the Engineering Profession,” *Bridge* 27 (1997): 4–8.

12 Amy O’Hara and Jodi Nelson, “Combatting Digital Disinformation: An Evaluation of the William and Flora Hewlett Foundation’s

Hewlett Foundation and Knight Foundation efforts share: 1) problems of data access from technology companies; and 2) related questions about scholars' capacity to keep pace with rapid technological change to ensure the validity of findings over time (that is, that research does not rapidly become dated) and knowledge accumulation. These issues are discussed later in this report.

In the past, the signs that knowledge fields were coming into being and coalescing involved: 1) creation of specific shared research questions; 2) a set of methods and theories on which many researchers share some rough consensus;¹³ and 3) the formation of field-validating institutions (institutes, centers, labs, departments, faculty lines and student funding, as well as journals, conferences and funding lines from government and philanthropy). For field-building, the central question becomes whether what begins as *interdisciplinary* work can ultimately become *disciplinary* work.

To assess the development of the Knight Research Network and evaluate the investments in it over time, these three traditional areas will all be key markers or metrics. Yet the new computational social science, a science of digital democracy, is mostly a *social science* (although methodological developments may be deeply scientific) and not a physical or life science. Research questions will be more varied, as will research methods. This diversity of questions and methods likely dictates that the emerging field's boundaries may not be as sharply delineated as disciplines in the physical or life sciences. This fact carries with it the ongoing risks of incoherency, with which social science has long struggled.¹⁴

In any case, the funding of policy centers as part of the KRN importantly signifies an inextricable tie with social impact. Assessment of success must also take into account the quality of correspondence between fundamental and applied research and real-world policy, to be implemented both in the public and private sectors, and whether upstream from new policy and ideas in the public sphere we can see sources of research and knowledge originated by the KRN and its allies. This connection is core to this investment's structural conception and angle of approach. Subsequent assessments will need to gauge the validity of this vision and approach as the policy center-investments have time to mature.

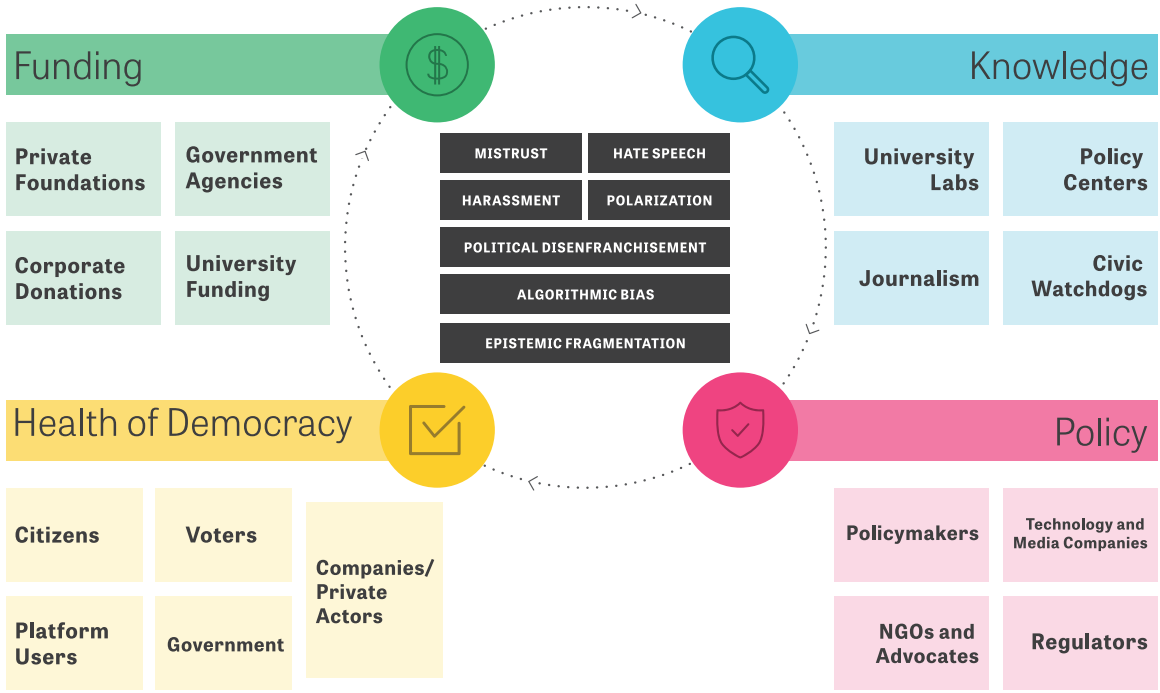
This vision anticipates improvements in the functioning of democracy based on strategic grantmaking upstream from the making of policy and implementation of ideas. The vision implies an intrinsic relationship between basic knowledge/understanding as essential to future informed activity by regulators, companies, communities and citizens. The general problems to be addressed include mistrust, hate speech, harassment, polarization, political disenfranchisement, algorithmic bias and epistemic fragmentation. On the solutions side, we might see this as a model for solutions (Figure 2) involving interrelated layers—funders, researchers, policymakers and ultimately the public. To be clear, this model and strategic vision has not been formally documented by Knight Foundation, but it might be imagined as follows:

Disinformation Strategy," Hewlett Foundation, October 2020, <https://hewlett.org/wp-content/uploads/2020/10/Final-Hewlett-evaluation-report-on-disinformation-.pdf>.

¹³ David Kaiser, "In Retrospect: The Structure of Scientific Revolutions," *Nature* 484, no. 7393 (2012): 164–65.

¹⁴ Duncan J. Watts, "Should Social Science be More Solution-Oriented?," *Nature Human Behaviour* 1, no. 1 (2017): 1–5.

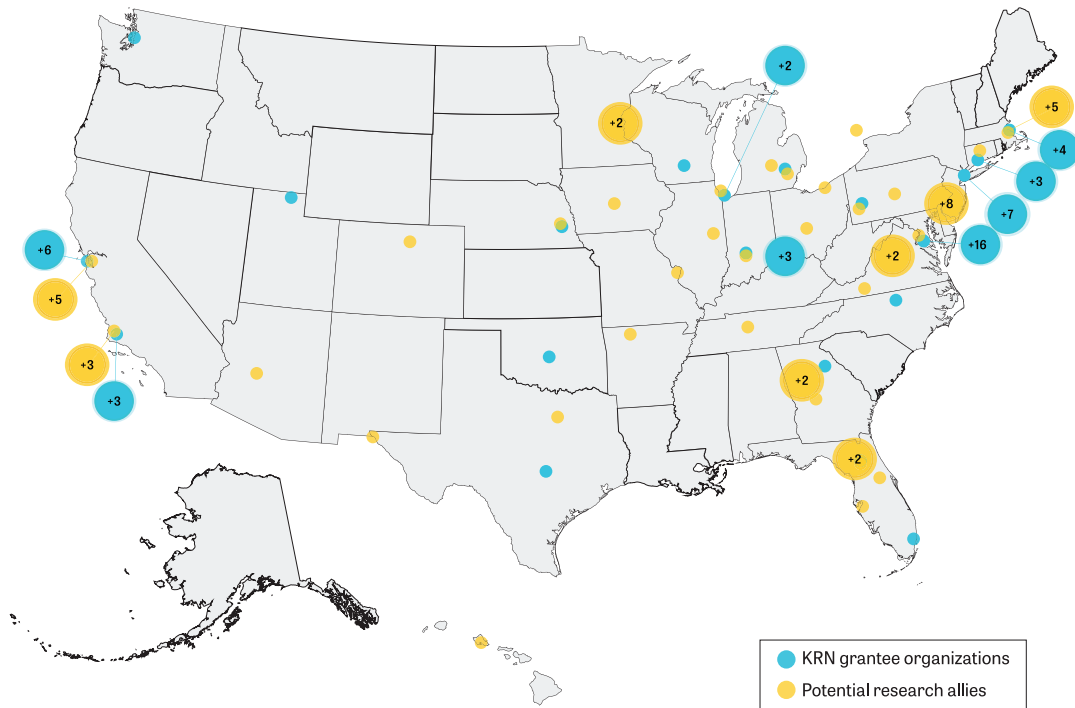
Figure 2. Potential Model for Addressing Problems of Digital Democracy



Steven Braun and John Wihbey, Northeastern University

As the model suggests, information and resources may flow in dynamic fashion, with funders and knowledge-makers helping to provide the understanding and tools that can improve policy ideas and approaches and, ultimately, outcomes and conditions in civil society and the public square. As mentioned, Knight is also doing funding in the policy quadrant of the model as part of the KRN grantmaking. Thus, the model is not just passive “trickle down,” as it were, and only targeted toward research, but in theory is also geared toward operationalization of the research and more concrete impact.

Figure 3. Potential Research Allies at Other Universities



III. Network Analysis of the Researchers: Baseline Connections

Given that this is the first Knight Research Network assessment, it is important to develop a deeper baseline understanding of the group of researchers who have been chosen to help accelerate this field. The network visualization in Figure 4 is based on a network analysis relating to the publications of 60 key researchers (those listed as faculty or research scientists on the websites of the 11 original institutional grantees) in the Knight Research Network and the patterns of co-citations and co-authorship of one another to date. In a few cases, visiting research fellows or affiliates at other institutions were included where projects used them in core research scientist-like capacities. This type of bibliometric analysis is an 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 facilitated this analysis in collaboration with the author of this report.

The findings are almost entirely historical and mostly capture researchers' prior careers—they do not yet tell us much about the still-nascent Knight Research Network. It is mostly too early to trace comparative developments.¹⁵ Yet this type of analysis helps in two respects. First, it gives us a central visual image for thinking about the network in relational terms. Second, using quantitative methods, it helps establish a baseline pattern detailing, scientifically, how the network is interrelated from the perspective of scholarly knowledge—that is, how much the grantees relate to relevant disciplinary and interdisciplinary fields.

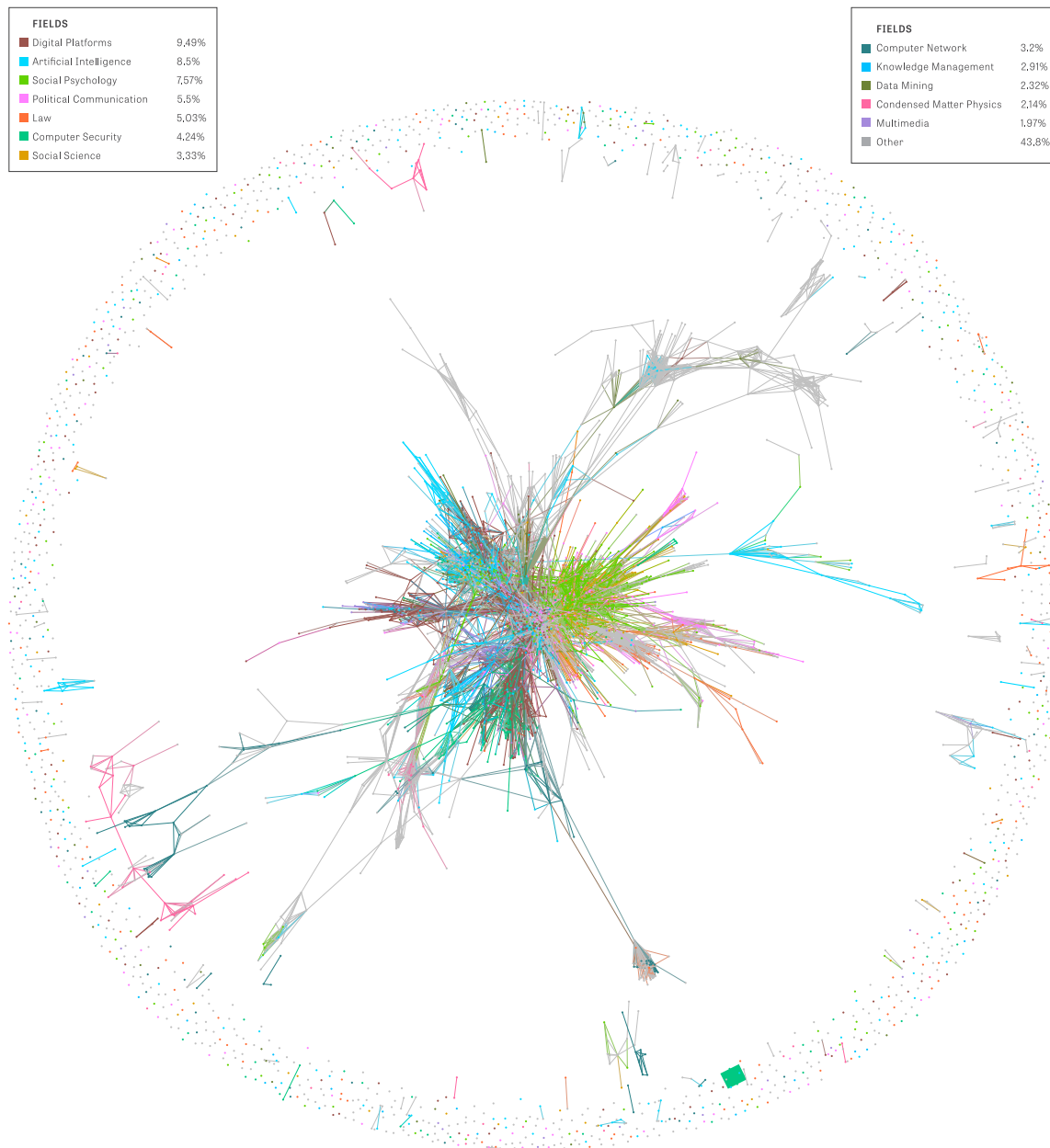
Substantively, we can see overlap among the various fields in terms of co-citations. This would suggest some common territory and shared intellectual space. As the legend suggests, the core researchers are doing work in a wide variety of fields, including political communication, law, artificial intelligence and more.¹⁶

¹⁵ KRN's Kathleen M. Carley, who leads the team at Carnegie Mellon University, has done analysis on the emerging field of "social cyber-security" and concluded that the core of that field's network has grown since the Knight Research Network began. For more, see Kathleen M. Carley, Guido Cervone, Nitin Agarwal, and Huan Liu, "Social Cyber-Security," in *International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction and Behavior Representation in Modeling and Simulation* (New York: Springer, 2018), 389–94.

¹⁶ The category labels in Figure 4 come from Microsoft Academic's fields of study/topics (some field names have been slightly modified for clarity), <https://academic.microsoft.com/topics>.

Figure 4. Co-citation Analysis

Visualization of the network of 60 core researchers in the Knight Research Network, their 4,057 publications as of October 2020 and their citing publications.



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

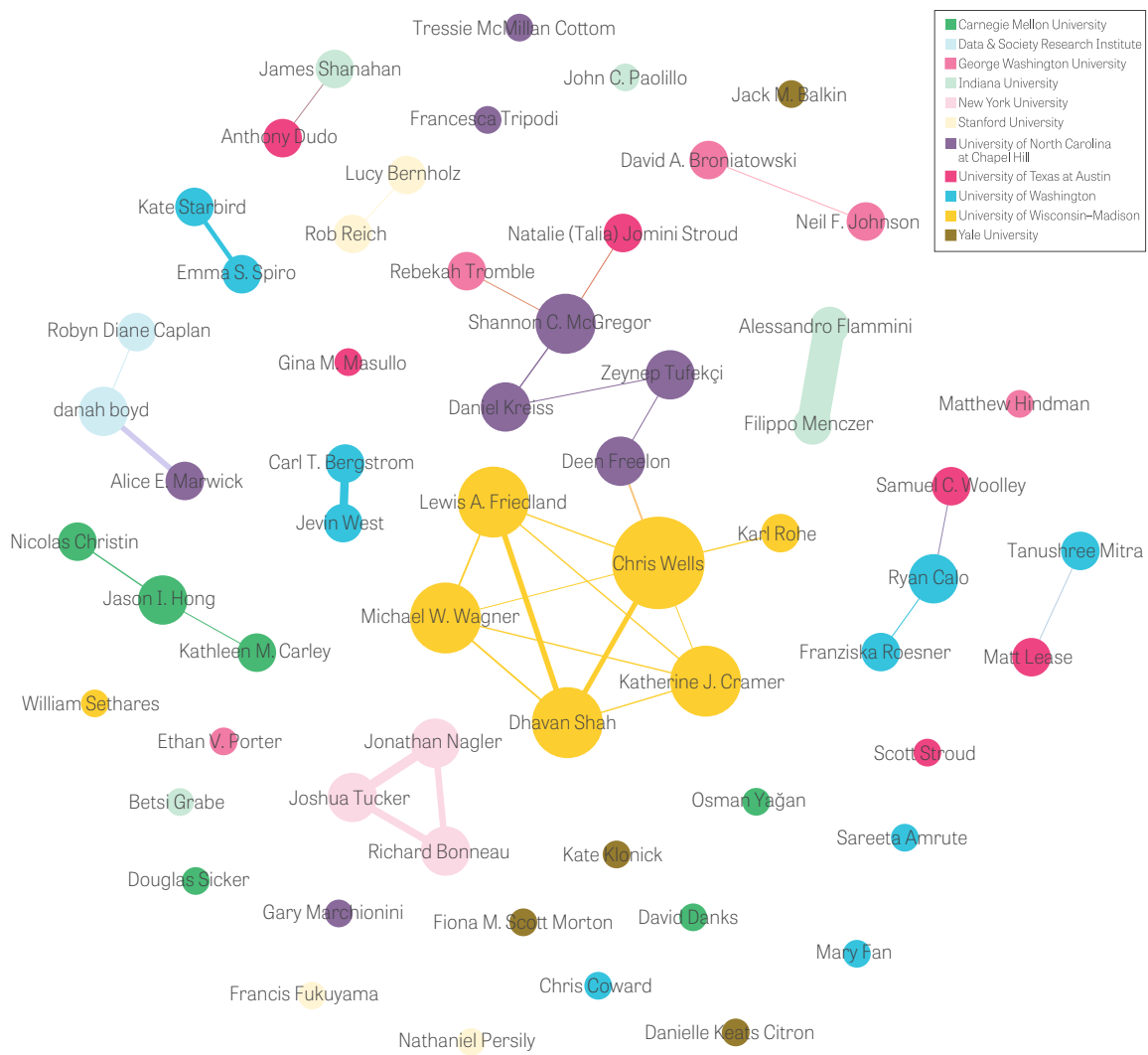
In Figure 4, each node (dot) represents a publication (there are a total of 4,057 publications combined from these 60 researchers). If there is an edge (line) present between any two publications (nodes), this suggests they both were cited together by other articles. The thickness of the edge is proportional to how many articles have cited those two publications (nodes). By zooming in to the middle of the graph, it is possible to see some thicker edges, which means they have been cited together by a greater number of articles, compared to thinner edges.

Further, it should be noted that KRN members are diverse by design, as broad coverage of and support for adjacent fields may be key to studying digital democracy. Figure 4 shows the same 60 core researchers from the perspective of *co-authorship*. It is immediately evident at a glance that few of these researchers have collaborated together prior to the network's formation.

In interviews, researchers currently in the KRN articulate their work to be coalescing around a variety of areas of inquiry, including, for example: computational social science, internet governance, the study of disinformation and misinformation, social media studies, social cyber-security and the uses of AI and machine learning in sociotechnical systems. Traditional disciplines from which researchers come (and did their graduate work in) include: political science, computer science, sociology, engineering, communication studies, and public policy and legal studies, among others.

Figure 5. Co-authorship Analysis

Visualization of the network of the core 60 researchers in the Knight Research Network and co-authoring patterns. Note: Researchers may have other university affiliations, as well.



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



Co-authorship networks typically look much sparser than co-citation networks, as direct collaboration is a high bar for connectivity. Yet surely part of the goal of the Knight Research Network is to change the look of this diagram over time. (Some collaborations are already in process.)¹⁷ Of course, not all researchers are necessarily aligned in research questions and methods, and many may prefer to collaborate with researchers outside the immediate network. For sure, a legitimate goal of individual researchers may be to catalyze aspects of the field within their current discipline and inspire other scholars outside the KRN to address new research questions. In any case, such a diagram may never look entirely dense and connected; but greater connectivity in co-authorship over time may be one metric/indication of success.¹⁸ The use of so-called altmetrics, or nontraditional bibliometric assessments that take into consideration popular media, social media and more, will also be useful for examining the interconnections of the scholars and their work.

¹⁷ A few of the researchers in Figure 5 have multiple affiliations, but for the purposes of this study are considered in their capacity as KRN affiliates.

¹⁸ In Figure 5, each node represents a researcher. Node (dot) size is determined by the degree of node (number of researchers collaborated with). If there is an edge (link) present between any two researchers (nodes), this suggests they have published articles together. The thickness of the edge is proportional to the number of articles published together.

IV. Assessment Design

Knight Foundation asked 31 grantees to complete a comprehensive survey, designed as part of this assessment process, relating to the work that had been done so far, the challenges that had been faced (specifically, the response to the twin crises of the Covid-19 pandemic and the racial justice protest movement), and the future directions of projects.

The survey was launched June 23, 2020, and completed by July 15, almost exactly a year from the day (July 22, 2019) that Knight announced the initial 11 large research-institution grants. Survey responses from the 19 grantees who were funded in a subsequent round, on November 22, 2019, are included in this assessment, but because they remained in very early stages, they are given less emphasis in this report.

The survey elicited information about individual publications, media coverage, public talks and appearances, and academic citations; narrative comments on milestones for projects, current work, and future research; and reflections on the impact of Covid-19 and racial justice/the Black Lives Matter movement and how these events have shaped intellectual and administrative directions. Overall, this information-gathering process generated about 400 pages of reporting across the grantees, with links to tens of thousands of more pages of outputs and materials. This assessment report, therefore, necessarily stays at a high level and cannot capture all the work of the various teams.

To get a better grasp of issues emerging for the KRN, 24 people were also interviewed to gain both inside and outside perspective about the portfolio of projects. These were conducted on an “on background” basis, whereby comments were not for direct attribution. Among the 24 interviewees were research principal investigators and staff administrators in the early grantee group, as well as a group of outside experts who were asked for their general views on the investments. Key grantmaking architects within Knight Foundation itself (Senior Vice President and Chief Program Officer Sam Gill and Director of Learning and Impact John Sands) were also interviewed/consulted during the assessment process.

Grantee Interviews	Outside Expert Interviews
<p>Sareeta Amrute, Data & Society Research Institute Jack M. Balkin, Yale University Kelly Born, Stanford University Kathleen M. Carley, Carnegie Mellon University Julia Carter, University of Washington Margo Cuncliffe, George Washington University Deen Freelon, University of North Carolina at Chapel Hill Joanna Gould, Data & Society Research Institute Sam Hinds, Data & Society Research Institute Filippo Menczer, Indiana University Nathaniel Persily, Stanford University Zeve Sanderson, New York University Natalie (Talia) Jomini Stroud, University of Texas at Austin Rebekah Tromble, George Washington University Joshua Tucker, New York University Michael W. Wagner, University of Wisconsin–Madison Jevin West, University of Washington</p>	<p>Jesse Blumenthal, Charles Koch Foundation Nicco Mele, Draper Richards Kaplan Foundation Brendan Nyhan, Dartmouth College Daniel Stid, Hewlett Foundation Jenny Toomey, Ford Foundation Sudhir Venkatesh, Columbia University/Twitter Duncan Watts, University of Pennsylvania</p>

V. Outputs: Year One

Summaries and Portraits

The output across many of the major research centers/projects was substantial across the period studied. Data reviewed for this report includes: academic citations and downloads/views of publications; media interviews and citations; invited talks and webinars; web traffic on digital properties; social media engagement for specific pieces of content; contacts with public policymakers and private sector decision-makers; and usage of software by download counts and even API hits (usage of data pipe infrastructure streams).

Some KRN teams report more than 100 publications, hundreds of citations (to both new and prior work), and dozens of media interviews/citations, an impressive feat given the relatively short period being evaluated and the difficult societal conditions.

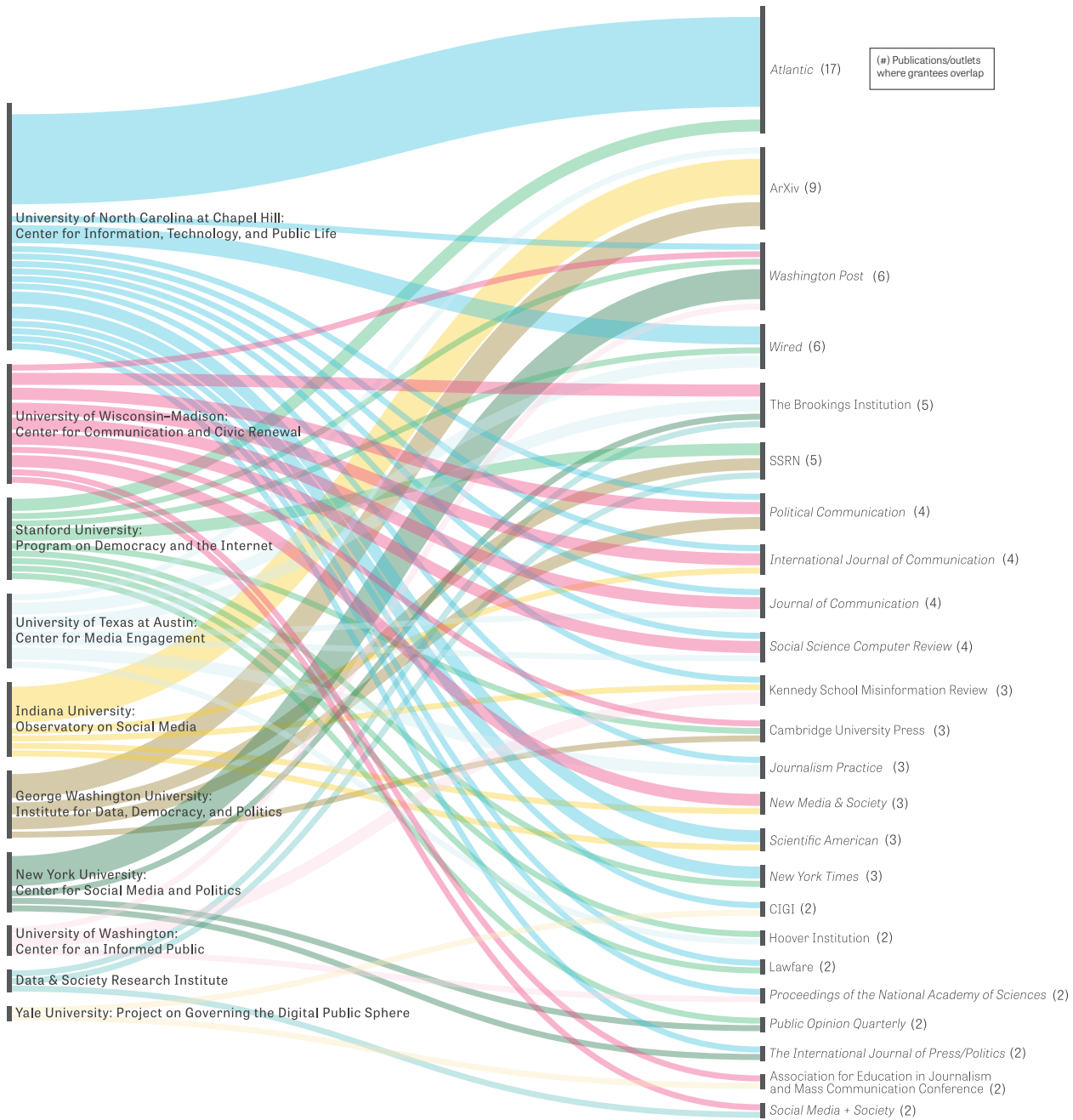
The following are some takeaways across key metrics:

Grantees produced a steady volume of research: More than 400 articles, papers, reports and books were published among all 31 grantees, and three-quarters of those and nearly all scientific, peer-reviewed articles were produced by the five new Knight-supported centers plus six other institutions where Knight invested \$1 million or more. Teams published in many major research journals that have growing interests at the intersection of technology and democracy.

Of particular interest for assessments of the development of the Knight Research Network, we can identify shared intellectual space by examining the publications and outlets where at least two of the 11 early institutional grantees published. We include scholarly and media publications, as well as some of the databases where preprint papers are often deposited. This shared intellectual space is visualized in Figure 6 as a flow diagram showing the overlapping strategies. Knight centers are organized on the left, outlets on the right.

Consider the table below, which shows the specific publication outlets, and numerical counts, where there was overlap, in the first year:

Figure 6. Centers and Publication Pathways



Aleszu Bajak and John Wihbey, Northeastern University

KRN research is authoritative and widely cited within the research community: For example, there were 1,800 citations for the Indiana University team across the period studied; 5,000 for the University of Wisconsin researchers in 2019–20; and 320 for NYU's Center for Social Media and Politics. (Figures are for new and prior work cited, and stand as estimates.)

Digital tools are an important adjacent research output: For example, the team at Indiana University has built digital infrastructure used by more than 400 researchers along with a dataset of billions of social media messages for study. NYU's tools have seen nearly 10,000 downloads over the period studied.

Research centers are making efforts to influence public and policy debate through public scholarship:

- George Washington University's team authored 41 expert commentaries and 5 op-eds, while 40 further news articles were influenced directly by the team's research.
- The Observatory on Social Media at Indiana University regularly fields numerous requests from journalists for analytical and technical help, boosting journalism through structural supports.
- Data & Society's Disinformation Action Lab (DAL) conducted 23 learning events and now provides real-time intelligence on communication threats to the Census Operations Center, the rapid response unit implemented by the Census Counts Campaign.
- The German Marshall Fund of the United States published the policy roadmap "Safeguarding Digital Democracy," which led to requests from Congressional offices, including the Speaker of the House, the Chair of the House Antitrust Subcommittee, and the Senate and House Commerce Committees, as well as the Congressional Task Force on Digital Citizenship.
- The Stanford team launched the [Healthy Elections Project](#) in collaboration with MIT.

Researchers have also been active in public events of various kinds: Researchers across the entire network appeared in more than 500 conferences, panels and public workshops (this is likely an underestimate, as many teams ran regular virtual events frequently starting in March 2020). For example, University of Wisconsin had 1,000 attendees at their 2020 conference, did more than 100 media interviews and gave 71 public talks over the period studied.

KRN scholars are informing leaders in government and industry: Researchers provided testimony before U.S. Senate and House committees on a range of issues, and contributed their expertise in numerous briefings with legislative staffers, the FCC, the Justice Department, the FBI and Homeland Security, the European Commission and relevant U.K. government bodies, and numerous policymakers at the state level. Insights from researchers proved influential in shaping or reshaping some policies and decisions among the large technology companies and their social media platforms. For example:

- Research affiliates at George Washington University's Institute for Data, Democracy & Politics have been invited to consult policymakers in the U.S. and Europe 37 times over the period studied.
- Zeynep Tufekçi, a faculty member at University of North Carolina's Center for Information, Technology, and Public Life (CITAP), published influential pieces relating to Covid-19 that shaped new policies by the Centers for Disease Control (CDC).
- At the UCLA Center for Critical Internet Inquiry (C2i2), the lead researchers, Sarah T. Roberts and Safiya Umoja Noble, gave expert testimony to the U.K. House of Lords, and

Noble was recently appointed a Commissioner representing North America on the Oxford Commission for AI and Good Governance.

- Multiple grantees provided advice to digital platform companies, influencing policy at multiple levels at Facebook, Twitter and Google; several teams report directly helping to reshape policy within technology companies through targeted scholarship and meetings.

Researchers are also trying to promote innovation in journalism and communication, helping media find new engagement strategies: Among the leaders in these efforts is the University of Texas at Austin's Center for Media Engagement. Led by Natalie (Talia) Jomini Stroud, the Center is studying and generating strategies for building “connective democracy”—tools, insights and theories that might help bridge across divides in American society. The Center produced some 87 publications, including reports and posts on its very active website and through its social media channels, in addition to journal articles and white papers. Among the publications were 33 ethics case studies that ask people to more critically examine media practices, which have been used in educational contexts by more than 30 colleges and universities. The Center's news-focused Quiz Creator, a tool that helps make the news more engaging, saw 260,000 unique pageviews. The institution also increased staff size from 38 in September 2019 to 53 as of June 2020. Researchers made about 30 conference/public appearances, many in academic and think tank settings and drew wide media coverage (47 instances) from outlets such as the Associated Press, *Wall Street Journal*, *Los Angeles Times*, and Nieman Journalism Lab.

Grantees are helping to build the talent pipeline (Ph.D. and postdoctoral students) to ensure the growth of the field and diversity among its researchers: For example, University of Wisconsin placed both of its Knight Fellows in tenure-track jobs at R1 universities. NYU's Center for Social Media and Politics similarly saw its graduate students move into faculty jobs around the world, and the University of Texas at Austin's Center for Media Engagement had six postdoctoral students lined up for fall 2020. Through the University of Washington's new center, 26 students at the undergraduate, master's, and Ph.D.-candidate level participated in a class with faculty mentors and partners on projects that included misinformation around Covid-19. University of Washington has three postdoctoral students for fall 2020, through additional funding from Microsoft and the University's Population Health Initiative.

The \$5 million new academic centers: Portraits

The major investments of the Knight Foundation created five new research centers, each of which are funded at the \$5 million level. The following are brief narratives spotlighting achievements at these institutions. These descriptions are meant to be suggestive and not comprehensive, speaking to the wide range of activities and outcomes within these new institutions:

Carnegie Mellon University, Center for Informed Democracy and Social-cybersecurity (IDeaS)

IDeaS has been developing improved tools for identifying who is conducting information activities—which helps with problems such as those caused by bots and trolls—and for identifying partisan/belief “stance.” Led by professors Kathleen M. Carley and David Danks, the team has focused on

producing scholarly book chapters and conference proceedings. Covid-19 prompted the team to turn around a number of papers on the topic. They made 19 conference or public appearances, often with government audiences, and received coverage in prominent outlets such as *USA Today*, *VICE*, *PBS* and *Popular Science*. Three doctoral/postdoctoral students have trained under the project. Six new Knight Fellows are now engaged in work there.

George Washington University, Institute for Data, Democracy & Politics (IDDP)

IDDP has focused on questions of foreign manipulation and interference in the 2020 U.S. elections, among other topics. The team produced 34 publications, constituting a wide variety of scholarly papers and reports; they also authored 46 commentaries and op-eds. In June 2020, IDDP, led by professors Rebekah Tromble, Frank Sesno, and David A. Broniatowski, hosted two major online forums in cooperation with the International Grand Committee on Disinformation, with speakers including Nancy Pelosi, Adam Schiff, Stacey Abrams and Věra Jourová (of the European Commission). Across the first year, the team's work saw wide media coverage (94 media citations in total) from virtually every mainstream news outlet, including *Time*, *Wired*, *Washington Post* and ABC News. Policy reports from IDDP have been cited by the European Regulators Group for Audiovisual Media Services, the United Kingdom's House of Lords Select Committee on Democracy and Digital Technologies, and the European Commission.

New York University, Center for Social Media and Politics (CSMaP)

CSMaP's research agenda aims to understand how information and misinformation spread both within and across digital platforms in the new information environment, and the effect this has on individual political beliefs and behaviors as well as on elites. The Knight Foundation grant was complemented by a \$5 million grant from the Charles Koch Foundation. Led by Richard Bonneau, Jonathan Nagler, and Joshua Tucker, CSMaP produced 21 publications, a wide variety of award-winning academic papers, technical reports, and commentaries. They have been frequent contributors to the *Washington Post's* scholarly blog "The Monkey Cage." Researchers were awarded a National Science Foundation (NSF) Grant for Rapid Response Research (RAPID). CSMaP's trainees have been thriving in academic careers: two postdocs have left to take faculty jobs at universities abroad; a former Ph.D. student will join the faculty at the University of Colorado Boulder in fall 2020, and two master's students are matriculating to top Ph.D. programs (one to work with Knight-funded researchers at Indiana University).

University of North Carolina, Center for Information, Technology, and Public Life (CITAP)

The new CITAP, led by Deen Freelon, Daniel Kreiss, Alice E. Marwick, and Zeynep Tufekçi, is examining the intersection of identity, misinformation and disinformation, and the workings of technology platforms. Researchers produced 51 publications, both scholarly and public commentaries (for example, in the *Atlantic* and *Wired*). They produced substantial work and commentary on the racial justice movement; health information and its intersection with political and social identity more broadly; and implications for the 2020 U.S. presidential and other elections, influencing public discourse and policy at the CDC. CITAP affiliates made nearly 40 public appearances, in both academic and government settings. It received

media coverage at least 75 times, including in the *New York Times*, *Washington Post*, NPR and CNBC. Professors Freelon and Tufekçi, in particular, proved highly influential in shaping public discourse about the racial justice protests and Covid-19 issues on social media during this period.

University of Washington, Center for an Informed Public

The Center focuses on how misinformation and disinformation flow through modern information systems and how information translates into values, beliefs and actions, with special attention paid to the role that science plays during crisis events. Led by Jevin West, Ryan Calo, Chris Coward, Emma S. Spiro and Kate Starbird, the Center's research drew media coverage at least 145 times during the period studied. Researchers provided input and testimony to legislators at both the national and local levels. The team dedicated significant resources toward building data infrastructure; it collected, processed and analyzed more than 1.5 billion tweets relating to Covid-19 and the racial justice protests, as well as real-time data on YouTube videos that were going viral. The researchers are involved in a public education and curriculum-building efforts relating to data reasoning. In partnership with the Radio Television Digital News Association (RTDNA) and the Trust Project, the team also developed a public service announcement video series about misinformation, with a focus on the 2020 elections.

VI. Network Activities and Responses to Disruption

COVID-19 and racial justice movements

Knight Research Network teams, on the whole, adapted in difficult circumstances. While many reported challenges in particular with events and conferences being canceled, many pivoted intellectually and embraced research opportunities. For example, Carnegie Mellon's team produced five Covid-19–related papers; the NYU and University of Washington teams received National Science Foundation (NSF) Grants for Rapid Response Research (RAPID).

Researchers are using the moment to grow their footprint: The University of Wisconsin–Madison's Center for Communication and Civic Renewal secured additional grant funding to do pandemic-related work and, with health experts, launched a public app, COVID-19 Wisconsin Connect. Many teams immediately realized the importance of collecting data from social media and surveys in order to study novel social behavioral patterns in response to a unique public health emergency.

Scholars in the Knight Research Network have been among the most-cited experts in the public conversation during the Covid-19 crisis. For example:

- At the University of Washington's Center for an Informed Public, biologist Carl Bergstrom helped to popularize the concept “flattening the curve.” Jevin West has drawn attention to the “infodemic” that has accompanied this public health emergency, while Kate Starbird and Emma Spiro are tracking both how and why misinformation has spread during the public health emergency.¹⁹
- Zeynep Tufekçi at UNC Chapel Hill's Center for Information, Technology, and Public Life has been one of the key translators of science and technology's role in the crisis, publishing multiple op-eds in a range of outlets from the *New York Times* to the *Atlantic*.²⁰
- The research team at the University of Wisconsin's Center for Communication and Civic Renewal has leveraged their deep understanding of the state's communications ecology to support Covid-19 responses and counter misinformation at the local level.

19 See Doug Parry, “CIP Researchers Promote Trustworthy Sources on COVID-19,” University of Washington, March 12, 2020, <https://ischool.uw.edu/news/2020/03/cip-researchers-promote-trustworthy-sources-covid-19>; Kate Starbird, Emma Spiro, and Jevin West, “This Covid-19 Misinformation Went Viral. Here's What We Learned,” *Washington Post*, May 8, 2020, <https://www.washingtonpost.com/politics/2020/05/08/this-covid-19-misinformation-went-viral-heres-what-we-learned/>.

20 For example, see Zeynep Tufekçi, “Why Telling People They Don't Need Masks Backfired,” *New York Times*, March 17, 2020, <https://www.nytimes.com/2020/03/17/opinion/coronavirus-face-masks.html>; Zeynep Tufekçi, “This Overlooked Variable Is the Key to the Pandemic,” *Atlantic*, September 30, 2020, <https://www.theatlantic.com/health/archive/2020/09/k-overlooked-variable-driving-pandemic/616548/>.

- Kathleen M. Carley at Carnegie Mellon University has been monitoring the evolution of false information related to the virus and briefing policymakers and the public via webcasts.

Covid-19 has created staffing and resource challenges: hiring freezes materially affected the ability for multiple teams to achieve their potential, as they could not bring on key personnel such as executive directors. Multiple grantees are concerned about the funding landscape, as many funding institutions reorient priorities.

Racial justice and equity concerns have accelerated research threads at some institutions. Some teams, such as the one at the University of North Carolina, were already doing subject-relevant work, and are now accelerating that by looking at polarizing content and larger structures of racial identity, and how health misinformation is perceived according to race and partisanship. The new shift in social consciousness is helping to bring more attention to long-running research lines of inquiry such as those at Data & Society.

Some KRN researchers have expanded their footprint to include more research about racial justice. For example, University of Washington researchers saw the importance of gathering real-time data and collected about 300 million tweets relating to the protests. Substantial research time is being spent on analyzing this massive amount of data. Researchers at the University of Wisconsin were able to incorporate related questions into their ongoing surveys and now plan to incorporate racial justice themes into their fall elections research. Other teams, such as those at Data & Society and the Economic Security Project, are seeding new research proposals, reframing research programs, and actively planning for surges of research at the intersection of race, justice and technology.

Constituting a self-organizing network

Researchers are benefiting from the network. Numerous researchers report working on co-authored articles with others in the Knight-supported group of scholars because of the closer affinity through the network. Every grantee interviewed said the email listserv had been helpful, and many said they spotted opportunities to collaborate or speak at one another's events. Meetings for the postdoctoral group and among program managers have been organized or are in the planning stages.

KRN scholars are leading two major collaborative research initiatives: teams from Stanford and the University of Washington recently partnered with researchers from other organizations to launch the Election Integrity Project, which independently monitored and documented efforts to undermine the 2020 election through disinformation campaigns on social media.²¹ The University of Texas and NYU Center for Social Media and Politics are co-chairing a joint research initiative with Facebook that will also involve fellow grantees from George Washington University, University of North Carolina at Chapel Hill, Stanford, and University of Wisconsin–Madison—uniting nearly all the biggest grantees on the project.

With that said, there remain questions about how tightly the network may ultimately collaborate. Organically, some teams may find better-suited partners with the numerous scholars doing adjacent work who are not part of the network. Some of the teams in the Knight Research Network continue to want more opportunities for collaboration but have thus far not formalized what they desire. Of course,

²¹ "Announcing the Election Integrity Project," Stanford Internet Observatory, July 27, 2020, <https://cyber.fsi.stanford.edu/io/news/announcing-election-integrity-partnership>.

this study covers the very early stages of work, and many collaborations that have been started may not yet be apparent.

As mentioned, one chief metric for charting progress will be to look at co-citation and co-authorship networks and how they grow over time. Because joint webinars and conferences have become common, it would be beneficial to create a mechanism to map those, as well.

VII. Future Considerations For the Field and Funders

This assessment report identified three key areas for consideration as the Knight Research Network continues to develop over its second year. These topics are synthesized from the surveys and interviews and analysis of project outputs and media coverage. This section also details specific issues identified by grantees that may demand greater clarity and dialogue. Finally, the outside expert group had some common observations that Knight Foundation and the KRN, as well as the field and funders writ larger, might find useful.

This assessment finds a few major topics that bear special attention moving forward:

Data access

There is overwhelming consensus among researchers in the KRN that there remains an urgent need for the creation of trusted data intermediaries and incentive-compatible arrangements for data sharing from technology companies with social science researchers. The Social Science One initiative, which involved Facebook, the Social Science Research Council, seven leading foundations including Knight Foundation, and university researchers, was launched in April 2018 with much fanfare. After 20 months, the effort produced what is likely the largest dataset to date for social science research. But throughout, the effort ran into significant legal and technical hurdles relating to concerns about releasing data related to individual platform users, and there remain serious questions about the usefulness of the dataset that was released.²² This largely stalled effort has forced a reckoning of sorts about the difficulty of the task of opening up data from private social media companies, short of government intervention.²³

That said, several key developments involving KRN researchers have taken place in more recent months. First, 17 academics have come together in a group chaired by principal investigators at University of Texas, Austin (Talia Stroud), and New York University (Joshua Tucker) to study Facebook's effects on the 2020 election, in partnership with the company.²⁴ The effort is being documented by the KRN's Michael W. Wagner of the University of Wisconsin. This initiative, which involves a new model

²² Gary King and Nathaniel Persily, "Unprecedented Facebook URLs Dataset Now Available for Academic Research through Social Science One," Social Science One/Harvard University, February 13, 2020, <https://socialscience.one/blog/unprecedented-facebook-urls-dataset-now-available-research-through-social-science-one>. One of the chief criticisms is that the URLs released all come from accounts that have "public" privacy settings. For technical details, see Solomon Messing et al., "Facebook Privacy-Protected Full URLs Data Set," February 13, 2020, https://solomonmg.github.io/pdf/Facebook_DP_URLs_Dataset.pdf.

²³ Daniel Stid, "Taking Stock of an Initial Project To Understand Social Media's Impact on Democracy," Hewlett Foundation, February 13, 2020, <https://hewlett.org/taking-stock-of-an-initial-project-to-understand-social-medias-impact-on-democracy/>.

²⁴ "Independent Research To Understand Facebook and Instagram's Role in the U.S. 2020 Election," Facebook, n.d., <https://research.fb.com/2020-election-research/>.

whereby researchers design studies and internal company researchers and engineers run these studies while staying in control of the platform's data, may provide a new replicable model. Secondly, a number of organic conversations, some involving KRN members, have been started with companies such as Twitter about new ways to speed up access to data.

Despite slower progress on data access than many initially expected, the field is learning through experience. Three clarifying publications have been issued relatively recently that rigorously lay out the needs and challenges in terms of data-sharing:

- A new book, *Social Media and Democracy: The State of the Field and Prospects for Reform*, co-edited by Nathan Persily of Stanford and Joshua Tucker at New York University (with contributions from Knight Research Network members).²⁵
- Another state-of-the-field publication, "Computational Social Science: Obstacles and Opportunities," was authored for the flagship journal *Science* by a wide variety of researchers in the United States and Europe, including KRN affiliates.²⁶
- The final assessment of Social Science One, issued by the Hewlett Foundation, contains a wealth of lessons for future data access/sharing efforts.²⁷

These documents set out important markers and provide hard-won wisdom that might influence the next iteration of efforts in this direction.

Broader, more collective efforts may be needed in the future, and pooling of resources and economies of scale around shared data resources make a great deal of sense. Beyond advocating for the sharing of large datasets, researchers together or a third party intermediary might use collective power and expertise to try to create other kinds of partnerships with industry, including creating more pathways for graduate students to gain industry experience; clearer channels for industry to access guidance from academics and expectations for those collaborations; and more opportunities for qualitative and ethnographic research to be done within companies, such that which researchers at Data & Society or the UCLA Center for Critical Internet Inquiry undertake.²⁸

Grantees noted in interviews that there might be a way to make the research more visible to the platform companies themselves. One idea is to form a working group and invite in data scientists from the platforms. Some grantees also expressed a desire for relationships with the technology companies to be facilitated through clearer, more transparent pathways open to the KRN and its research allies, and not through one-off special access deals. Many grantees report that access to the companies is still very informal, based on one-off relationships through former graduate students, and so on.

Interviews with grantees for this assessment identified interest in putting together a third-party consortium that would broker access data and negotiating costs with Twitter, in particular, and bear costs of infrastructure and standardizing legal agreements. The idea would be to join forces and

25 Nathaniel Persily and Joshua A. Tucker, eds., *Social Media and Democracy: The State of the Field, Prospects for Reform* (Cambridge: Cambridge University Press, 2020). Open access copy available at <https://www.cambridge.org/core/books/social-media-and-democracy/E79E2BBF03C18C3A56A5CC393698F117>.

26 David M.J. Lazer, Alex Pentland, Duncan J. Watts, Sinan Aral, Susan Athey, Noshir Contractor, Deen Freelon, et al., "Computational Social Science: Obstacles and Opportunities," *Science* 369, no. 6507 (2020): 1060–62, <https://science.sciencemag.org/content/369/6507/1060.summary>.

27 Amy O'Hara and Jodi Nelson, "Evaluation of the Social Science One – Social Science Research Council – Facebook Partnership," Hewlett Foundation, December 2019, <https://hewlett.org/wp-content/uploads/2020/02/Facebook-Partnership-Final-Evaluation-Report.pdf>.

28 For example, see Sarah T. Roberts, *Behind the Screen: Content Moderation In the Shadows of Social Media* (New Haven, CT: Yale University Press, 2019); and Sareeta Amrute, *Encoding Race, Encoding Class: Indian IT Workers In Berlin* (Durham, NC: Duke University Press, 2016).

address economy-of-scale issues toward Twitter data, across areas such as vetting proposals, building infrastructure and others.

There also remain powerful alternative ideas for industry-engaged partnerships, including the setting up of “algorithm auditors” who would, with the consent of the companies, be able to study the tendencies of the computational programs that platforms use by leveraging special access to data under certain conditions.²⁹ There is also the hope that researchers might be able to work with proprietary data in secure “clean rooms,” where data could be accessed for study but where it would remain legally and technically protected.³⁰

In addition to the above input from the grantees and this researcher, independent experts were consulted for this assessment, and they raised additional points about data access and industry relations issues. First, without good data access, these centers and the knowledge they produce may be “depreciating assets” over time, as platforms are changing so quickly that the changes undermine knowledge accumulation. One example: In the time it took a given researcher to get institutional approval to study a problem, the platform in question had cracked down on all the misinformation to be studied.³¹ Further, in the absence of broad shared access to platform data, this nascent field may take a turn in the direction of some of the physical/life sciences, in which researchers must be in large, well-funded labs that have most of the gold standard data. However, there is a persistent danger that becoming platform-dependent risks a situation like those faced in the fields of nutrition or pharmaceuticals, in which industry sometimes has undue sway.

From the experts' perspectives, researchers should look to study and solve more applied problems that industry has. Utility is crucial to making partnerships worth it for the technology companies. Lastly, legal experts increasingly believe that data access will be leveraged through European law and rules. KRN affiliates have been somewhat active in these debates in Europe, but it may be worth convening a more concerted effort, given the benefits for the collective.

Publication speed

One issue that arose in the first year that affected multiple grantees involved questions over the speed of publication, the imperative for media attention and publicity, and preprints (papers not yet through the peer-review process). Some grantees worry that mistakes and potentially flawed studies will tarnish the nascent field broadly, calling into question the research of other projects who use computational techniques to make insights about media and social media.

Interviews with many researchers in KRN suggest there are diverse views on how early is too early to publicize findings. There are discipline-bound perspectives, and researchers state frankly that there is disagreement. In computer sciences and related fields, for example, the tradition is to get out preprints very quickly; there is added pressure in the social sciences to publicize work—reaching a kind of “fevered pitch” now, said one principal investigator. Because there are multiple disciplines

29 Andy Guess et al., “Committee for the Study of Digital Platforms Politics Subcommittee Report,” George J. Stigler Center for the Study of the Economy and the State, The University of Chicago Booth School of Business, July 2019, <https://www.chicagobooth.edu/-/media/research/stigler/pdfs/politics---report.pdf>.

30 David Lazer, Joshua A. Tucker, Jonathan Nagler, et al., “Creating a Platform for the Sharing of Sensitive Online Data,” 2020, <https://securelysharingdata.com/whitepapers.html>.

31 For a discussion of some of these issues and their consequences related to social media platforms, see Adam Lovett and Kevin Munger, “Temporal Validity, Prediction and the Problem of Replicability,” July 8, 2019, <https://osf.io/yzghn/download>.

that have been brought together around the Knight grants, some teams are facing internal tensions over these issues. Some researchers feel that the integrity of the field is at stake, and teams should be circumspect. Others believe they have an ethical imperative to inform society in a timely way.

At the heart of this field is indeed a tension: There are cross-cutting imperatives—the need for scientific rigor and the need for timely insights that can help society. While publications and impact are valued in assessments such as this one, researchers should feel supported in making prudent, sometimes cautious, decisions. One veteran researcher put it as follows: “Tell the grantees, ‘Folks, do good work, don’t feel like you have to be the first. Get out of the rat race. The grant should be protection.’”

Network coordination and capacity

Currently, the Knight Research Network is coordinated at the collective level by a combination of Knight administrators and staff and, within the research and policy institutions, often by the administrators of some of the larger research projects. In the KRN’s “startup phase,” dynamic and talented administrators on all these sides have facilitated increased connectivity within the network, and these efforts are widely applauded.

Knight Foundation believes that the current structure for the network has been effective, but is open to evolving. The goal of the current model is to allow grassroots collaborations to bloom while also helping this new networked community to gather crucial early momentum and increase connectivity.

One model Knight Foundation, or others, might consider is the designation of an independent coordination body or group, a model employed by other networked grantmaking efforts. As a point of comparison, consider the Public Interest Technology University Network, which is comparable in size and complexity and stands as a parallel \$50 million initiative, spearheaded by the Ford Foundation. That initiative designates an administrator at New America Foundation as the network manager.³² The long-running Carnegie-Knight Initiative on the Future of Journalism Education, another parallel network of universities, has funded journalism schools across the country but deputized the Shorenstein Center on Media, Politics and Public Policy at Harvard University as the convening and coordination body.

In both the cases of Ford and Carnegie-Knight, there were advantages to having an independent actor do coordination, as it insulates both funder and grantees (it is always a higher-stakes proposition for grantees with the funder involved) and it allows teams to focus on the research. Another plausible way to facilitate this would be to consider funding a staff position at one of the universities participating in the network. It may also be beneficial to have a senior academic not involved in the research directly advising this coordination function, perhaps someone with domain expertise who has experience with field-building. There are many areas where more “matchmaking” might be done among teams to facilitate interdisciplinary research, and yet that work cannot really be done by the funder if the collaboration is to be intellectually organic.

Increasing diversity

There is strong agreement that the emerging field will only succeed if it brings in more diverse

³² For more, see the Ford Foundation website, <https://www.fordfoundation.org/campaigns/public-interest-tech/>, and New America Foundation website, <https://www.newamerica.org/our-people/andreen-soley/>.

researchers over time and better reflects the composition of society. Researchers at both the University of North Carolina and Data & Society have projects on inclusivity in scholarly citation and networks. These scholarly efforts might help inform strategies for the KRN in terms of bringing in more Black, indigenous, and Latinx researchers. A working group might focus on this issue as the research field takes shape and create a mechanism for monitoring.³³

Growing a field

Knight Foundation believes these grants have the potential to lead to a broader, more defined field of study. To move the field forward, Knight Foundation has set out to fund a conversation, not a point of view. Experts note that this desire bears careful monitoring. They advise that there is a tension between supporting research and supporting advocacy. Knight has consciously funded institutions with both a left- and right-leaning tilt. But overall the foundation must be careful about balance and should focus, to the extent possible, on fundamental research. Experts say that to protect against any general criticism that it is funding a point of view, a funder might more specifically identify, fund, and convene on topic areas in which there are substantial, multisided intellectual disputes, such as safe space versus free speech, censorship online, breaking up companies and monopoly power, Section 230, platform liability and internet governance questions, political advertising on platforms, or health data and health privacy. In supplemental funding, experts note, foundations might focus more explicitly on the frame of fair issue funding, rather than institution funding. It is difficult to balance funding institutions based on the valence of their ideology (which can be subjective) but easier to fund different sides of specific arguments/subjects.

In reviewing Knight Foundation's core grantees, outside experts praise the diversity of the selections, but they say it remains to be seen whether or not this particular group represents the most logical cohort of actors to produce strong, coherent field development. Knight notes that the RFP process for the network was very selective and that there were many more worthy researchers and teams who could have been selected. KRN members would like to find ways to include more researchers in the activities of the network. Knight believes this signals a broader field than it could fund in its initial investment.

More strategic funding will be needed to help define the field. Without setting up new funding pathways, the large investment will be at risk, given the long horizon needed for intellectual field formation (history suggests at least a 10–15 year horizon). When asked, outside experts offer the following advice. First, more government funding may be necessary for sustainability and public validation of the field. However, the length of the decision and funding cycles of government agencies for larger grants means that it may be difficult for research to keep up with the pace of technology, and more nimble funding structures from industry and philanthropy may be better suited to supporting this field.

Experts also offered that some kind of broad, inclusive working group focused solely on funding the field, leveraging the KRN, might need to be initiated. Two central problems might guide this work: 1) Government: Research on disinformation/misinformation fits readily into a security paradigm, but there are complications with taking funding from government agencies that have national security at their core, including restrictions on U.S. domestic research. The NSF currently has disciplinary funding lines

³³ See Rigoberto Lara Guzmán and Sareeta Amrute, "How to Cite Like a Badass Tech Feminist Scholar of Color," Points, Data & Society, August 22, 2019, <https://points.datasociety.net/how-to-cite-like-a-badass-tech-feminist-scholar-of-color-ebc839a3619c>.

for economics, political science and sociology.³⁴ 2) Industry: Corporate and foundation funding may need to be commingled in grantmaking, but there must be third-party institutions set up to safeguard researcher independence and respond to industry legal concerns.

Finally, experts note that there are open questions on the focus areas in the field. The focus on misinformation purveyed by digital platforms, specifically social media, seems appropriate now as a core research area for many in the KRN. Yet a focus on social media should not obscure the fact that mass media, among other sources, may need due attention. Research questions may need to be broadened and made more general/enduring to establish the field more firmly over time as technologies change.³⁵

³⁴ "Social & Economic Sciences (SES)," National Science Foundation. n.d., <https://www.nsf.gov/sbe/ses/about.jsp>.

³⁵ See, for example, Yochai Benkler, Casey Tilton, Bruce Etling, Hal Roberts, Justin Clark, Robert Faris, Jonas Kaiser, and Carolyn Schmitt, "Mail-In Voter Fraud: Anatomy of a Disinformation Campaign," 2020, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3703701.

VIII. Conclusion

Over the first year of the grant cycle, many Knight Foundation–supported researchers were especially active. They were both challenged and spurred to action by the Covid-19 pandemic and recent social unrest relating to racial justice movements. The foundation saw an immediate opportunity to conduct an early-stage assessment of the range, reach and relevance of the scholarship they produced during this pivotal time, and this report provides an initial look at progress and challenges among grantees.

The Covid-19 pandemic and racial justice movements created fertile conditions for research on misinformation during the first half of 2020. These conditions provided an early, albeit dramatic, test of the teams' ability to focus their newly enhanced analytical capacities toward new subjects of vital public interest. This preliminary analysis shows scholars were well resourced and able to make significant contributions to the body of research in a crucial moment, including more than 400 publications just among the initial 11 institutional grantees on which this assessment has focused. Some teams are also building research tools that are in wide use by other scholars and journalists.

Knight Research Network teams are influencing and shaping the public debate. The researchers are key figures in conversations with other researchers, policymakers and industry stakeholders around a variety of important issues, from election security and misinformation to foreign influence campaigns. Looking at the grantees overall, data collected as part of this assessment show more than 1,000 articles, mentions or appearances by KRN scholars in media outlets; more than 500 presentations at conferences, panels or workshops; numerous legislative testimonies or briefings for policymakers in a range of government agencies, both in the United States and in Europe; extensive consultation to, and influence with, technology companies; and high public visibility on social media.

Researchers say the field is realizing increased impact because of a strengthened network. Numerous scholars report co-authoring articles with other KRN members because of the closer affinity through the network. Nearly every grantee indicates identifying new opportunities to collaborate, and two major collaborative efforts involving many recipients of the largest grants are now launching. As this assessment has suggested, however, there are many more opportunities for collaboration, and greater connectivity will be a key metric moving forward in terms of measuring success for the KRN.

This analysis reflects less than a year's activity of mostly long-term investments. Still, early signs suggest Knight Foundation's investments are proving timely and catalytic. Some of those interviewed for this report suggest that 2020 was the year that "research struck back," bringing increased critical insight to problems that remained in a state of shadowy confusion during the 2016 election year, for example. Political disinformation in this latest national election year, 2020, was expected, but additional information challenges that accompanied the pandemic and social unrest underscore the vulnerabilities these investments seek to address and are creating additional opportunity for study.

There are encouraging early signs that these investments are sowing the seeds for institutionalization of this emerging field of research. This analysis shows grantees making key hires, growing their research output and expanding their reach amid challenging conditions. The organic collaborative efforts underway speak to the power of this new, active and dynamic knowledge network, which deeper analysis in future years of assessment will seek to understand more fully.