Speaking Truth to Power and Power Speaking Truth: Accurate and Reliable Information in a Pandemic

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I. INTRODUCTION: CHALLENGING UNTRUTHS DURING CONDITIONS OF UNCERTAINTY

We were warned!

Knowledgeable people told us that it would be a matter of when, not whether, the world would confront a novel contagious disease of pandemic

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proportions.[1] Scientists studied the conditions that would enable its emergence and facilitate human to human transmission;[2] journalists reported on developments associated with the capacity to respond;[3] novelists and film makers visualized possible scenarios of how a deadly contagion might change our lives;[4] and public officials and private entrepreneurs examined past experiences and gamed out various situations of human need and expectations of government leadership during the crisis.[5] The point of

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1.   *See* Hillary Hoffower, *Bill Gates Has Been Warning of a Global Health Threat for Years. Here Are 12 People Who Seemingly Predicted the Coronavirus Pandemic*, BUS. INSIDER (May 13, 2020, 1:01 PM), https://www.businessinsider.com/people-who-seemingly-predicted-the-coronavirus-pandemic-2020-3#infectious-disease-expert-michael-osterholm-has-also-been-warning-of-a-global-pandemic-for-the-past-decade-3 [https://perma.cc/WQZ2-3CHH].

2.   *See* Michael T. Osterholm, *Preparing for the Next Pandemic*, FOREIGN AFF., Jul.–Aug. 2005, at 24, 26.

3.   Eric Lipton, et al., *He Could Have Seen What Was Coming: Behind Trump's Failure on the Virus*, N.Y. TIMES (Apr. 11, 2020), https://www.nytimes.com/2020/04/11/us/politics/coronavirus-trump-response.html?action=click&module=Spotlight&pgtype=Homepage&fbclid=IwAR1ytlJ9EKB_4-aXwAre2KtZvhnRfqmQzMCOuSpMWzLPH_D0em7JFoapPYQ [https://perma.cc/Q2NJ-B7CA]; David E. Sanger et al., *Before Virus Outbreak, a Cascade of Warnings Went Unheeded*, N.Y. TIMES (Mar. 19, 2020), https://www.nytimes.com/2020/03/19/us/politics/trump-coronavirus-outbreak.html [https://perma.cc/VY9T-CVMN].

4.   *See, e.g.*, Meg Charlton, *A Taxonomy of Pandemic Art*, SLATE (Mar. 24, 2020, 12:19 PM), https://slate.com/technology/2020/03/coronavirus-pandemic-novels-apocalyptic-fiction.html [https://perma.cc/BH3C-SPVE]; Kristen Rogers, *'Contagion' vs. Coronavirus: The Film's Connections to a Real Life Pandemic*, CNN (Apr. 2, 2020, 12:23 PM), https://www.cnn.com/2020/04/02/movies/contagion-movie-versus-coronavirus-scn-wellness/index.html [https://perma.cc/4MZM-VKGW] (explaining filmmakers consulted with experts, including the World Health Organization, medical experts, and pandemic scholars); CONTAGION (Warner Bros. Pictures 2011).

5.   *See, e.g.*, U.S. DEP'T OF HEALTH & HUMAN SERVS., CRIMSON CONTAGION 2019 FUNCTIONAL EXERCISE KEY FINDINGS (2019), https://int.nyt.com/data/documenthelper/6824-2019-10-key-findings-and-after/05bd797500ea55be0724/optimized/full.pdf [https://perma.cc/88QL-F8P5]; Tara O'Toole, Mair Michael & Thomas V. Inglesby, *Shining Light on "Dark Winter,"* 34 CLINICAL INFECTIOUS DISEASES 972, 972 (2002) (containing a report of a table top exercise with high-level government officials of a simulated smallpox attack on the United States designed by experts at Johns Hopkins Center for Biodefense Strategies); Memorandum from Christopher M. Kirchhoff on NSC Lessons Learned Study on Ebola to Ambassador Susan E. Rice (July 11, 2016), https://int.nyt.com/data/documenthelper/6823-national-security-counci-ebola/05bd797500ea55be0724/optimized/full.pdf#page=1 [https://perma.cc/A6QW-N76B]; Bill Gates, *The Next Outbreak? We're not Ready*, TED TALK (Apr. 5, 2015), https://www.bing.com/videos/search?q=bill+gates+ted+talk+on+warning+of+virus&&view=detail&mid=EFA4DFAEF1275267AEC6EFA4DFAEF1275267AEC6&&FORM=VDRVRV [https://perma.cc/2ZCR-QPXJ]; Sanger et al., *supra* note 3. Most recently, the Trump Administration held a simulation of a respiratory virus pandemic known as "Crimson Contagion," producing a draft report in October 2019. U.S. DEP'T OF HEALTH & HUMAN SERVS., *supra*.

comparison for most of these analyses was the 1918 H1N1 influenza, dubbed the "Spanish Flu,"[6] historically one of the deadliest contagions in the modern era. During its fifteen months of active communicability, it infected about a third of the world's population with a staggering death toll in the tens of millions.[7]

In the century intervening between the 1918 H1N1 pandemic and the arrival of SARS coronavirus-2 at the end of 2019, Americans encountered several epidemic threats, all of which contributed warnings, and each of which illustrated a different aspect of an epidemic challenge. Since 1976, we have confronted a false alarm;[8] a dismissive public;[9] an exaggerated risk;[10] a rumored secret threat;[11] and public complacency fostered by moral opprobrium,[12] among many other epidemic outbreaks or threats. In responding to these crises, government messaging failed to anticipate or to timely counter

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6. Jeffery K. Taubenberger, *The Origin and Virulence of the 1918 "Spanish" Influenza Virus*, *in* 150 PROCEEDINGS OF THE AMERICAN PHILOSOPHICAL SOCIETY 86, 86 (2006).

7. *1918 Pandemic (H1N1 Virus)*, CENTERS FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/flu/pandemic-resources/1918-pandemic-h1n1.html [https://perma.cc/B23E-F2PA] (last reviewed Mar. 20, 2019). The Centers for Disease Control (CDC) uses the mortality figure of 50 million with 675,000 deaths in the United States. *Id.* The worldwide estimated number of infections is 500 million. *Id.*

8. *See* RICHARD E. NEUSTADT & HARVEY V. FINEBERG, THE EPIDEMIC THAT NEVER WAS: POLICY-MAKING AND THE SWINE FLU SCARE 17, 19, 20 (1983). The fear of return of the 1918 influenza produced a massive response for "the epidemic that never was." *See id.*

9. *See* Leslie Gerwin, *The Challenge of Providing the Public with Actionable Information During a Pandemic*, 40 J.L., MED. & ETHICS 630, 633 (2012). The 2009 H1N1 pandemic encountered significant skepticism and a widespread rejection of the vaccine developed to prevent its spread. *See id.*

10. *See* Gillian K. Steel Fisher, Robert J. Blendon & Narayani Lasala-Blanco, *Ebola in the United States — Public Reactions and Implications*, 373 N. ENG. J. MED. 789, 789 (2015). The Ebola epidemic in 2014 caused a panic in America despite only five cases. *See id.*

11. *See* Laura Eichelberger, *SARS and New York's Chinatown: The Politics of Risk and Blame During an Epidemic of Fear*, 65 SOC. SCI. & MED. 1284, 1284–85 (2007). Rumors that the Severe Acute Respiratory Syndrome (SARS) had been carried into the United States by illegal immigrants led to discrimination against Asian-Americans. *Id.*

12. *See* Walt Odets, *Ronald Reagan Presided Over 89,343 Deaths to AIDS and Did Nothing*, LITERARY HUB (July 22, 2019), https://lithub.com/ronald-reagan-presided-over-89343-deaths-to-aids-and-did-nothing/ [https://perma.cc/J2G7-5T9J]. Initially, America ignored the existence of Acquired Immune Deficiency Syndrome (AIDS) as a disease of homosexuals who did not merit public protection. *See id.*

historic disease tropes of inaccurate information.[13] Citizens had a difficult time understanding the threat and making informed decisions about how best to protect themselves.

As I write, COVID-19 has presented us with a worst-case-scenario disease with a worst-case-scenario leader and mired us in debates over the accuracy and reliability of the information we are receiving and the responses it suggests. This time, however, the pandemic is unfolding in an unmediated information ecosystem complicated by the advent of social media that is bombarding us with a panoply of claims and opinions. Still, we face the same question foundational to pandemic response: can our government do a better job—than it has been doing—of providing accurate and reliable information about the threat of a contagious disease?

This Article addresses that question. I submit that the answer can be yes, *if* we are willing to rethink the process by which government messaging is constructed and disseminated during a disease crisis. One step is to reframe the government's informing process as a dynamic exchange between government and polity. As a starting point, we should recognize that governmental communication with its citizens is not a unidirectional operation and focus new attention on how we can prepare citizens to become active consumers of information. In particular, government can enable experts to assist citizens in navigating the information ecosphere and to evaluate factual claims. Citizens can assist government messaging by identifying points of confusion and what they need to know to protect themselves and their communities.

Epistemically, we need to reorient our thinking and the rhetoric related to our knowledge expectations. Despite the title of this Article, we should abandon the goal of "truth" in an environment of pervasive uncertainty. Claiming something to be true, based upon data or facts of the moment, implies a certitude that can be undone when we gain new knowledge. The inclination of government officials to avoid acknowledging the instability of their factual information is understandable if uncertainty enhances

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13. Some examples of historic tropes include blaming a marginalized minority as a disease source, anti-vaccination pseudoscience, claiming government favoritism of the powerful, and questioning an epidemic's existence. *See* Gerwin, *supra* note 9, at 643; *The Handling of the H1N1 Pandemic: More Transparency Needed*, at 2–4, AS/Soc (2010) 12 (Mar. 23, 2010), http://assembly.coe.int/CommitteeDocs/2010/20100329_Memorandum Pandemie_E.pdf [https://perma.cc/3XZD-ZSDV]; Howard Markel & Sam Potts, *American Epidemics, a Brief History*, N.Y. TIMES (May 2, 2009), https://www.nytimes.com/2009/05/03/opinion/03markel.html [https://perma.cc/J2Y2-QPWS]; Betsy McKay, *Uproar as Firms Get Swine-Flu Vaccine*, WALL ST. J. (Nov. 6, 2009, 12:01 AM); https://www.wsj.com/articles/SB125746918136732473 [https://perma.cc/6EYH-VYPK].

public fear rather than allays anxiety.[14] Yet when new information challenges the certitude, whether officials confess error or rationalize their earlier position, they risk undermining their future credibility and compromising the response effort.[15] To be sure, accuracy is a synonym for truth, but I submit that by abandoning the truth standard we can reorient public thinking towards considering probable correctness and how our actions can improve outcomes. We can discover that the embrace of epistemic humility by government leaders and experts is a virtue.

The new information project also needs to account for our present political environment.[16] With the rise of hyper-partisanship and populism, we encounter leaders who challenge experts and expertise as political strategy.[17] When political considerations determine what we accept as facts and who we consider expert, it compromises our acquisition of knowledge. Almost anyone can find a social media platform on which to proclaim their expertise and declare their truths.[18] If we are willing to accept that experts cannot and should not assert more than they know, we can at least work towards a consensus about what are "untruths," which will help us avoid consequential missteps.[19]

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14.   *See* Daniel W. Drezner, *Why Can't World Leaders Ever Admit They Were Wrong?*, WASH. POST (June 9, 2015, 9:27 AM), https://www.washingtonpost.com/posteverything/wp/2015/06/09/why-cant-world-leaders-ever-admit-they-were-wrong/ [https://perma.cc/95LM-WHRR].

15.   *See, e.g.*, Sabrina Tavernise, *Will the Coronavirus Kill What's Left of Americans' Faith in Washington?*, N.Y. TIMES (May 23, 2020), https://www.nytimes.com/2020/05/23/us/coronavirus-government-trust.html [https://perma.cc/2B26-RNJJ].

16.   *Cf.* Heidi J. Larson, *The Biggest Pandemic Risk? Viral Misinformation*, NATURE (Oct. 16, 2018), https://www.nature.com/articles/d41586-018-07034-4 [https://perma.cc/4TK4-MXDU].

17.   Ewen Speed & Russell Mannion, *The Rise of Post-Truth Populism in Pluralist Liberal Democracies: Challenges for Health Policy*, 6 INT'L J. HEALTH POL'Y MGMT. 249, 250 (2017), https://www.ijhpm.com/article_3322_9556d2274e374a40b3d8128741b20db3.pdf [https://perma.cc/W3SV-3NZ6].

18.   *See, e.g.*, ANNA MERLAN, REPUBLIC OF LIES: AMERICAN CONSPIRACY THEORISTS AND THEIR SURPRISING RISE TO POWER 24 (2019).

19.   The argument that truth is difficult to determine does not extend to untruths. It is possible to identify a false or misleading claim, whether deliberately, negligently, or ignorantly proffered. Present discussion of information inaccuracy often speaks in terms of "misinformation" and "disinformation" as impediments to "truth." To avoid the disagreements over distinguishing about the types of unreliable information, I will avoid using the terms, although I commend the excellent LawFare podcast series on "Arbiters of Truth," which explores the instances and impact of disinformation. *See* Jon Patja Howell, *The Lawfare Podcast: Brandi Collins-Dexter on COVID-19 Misinformation and Black*

The COVID-19 pandemic has not only amplified the existing weakness of our government's messaging system, but it has also highlighted the synergistic impact of the information ecosystem and political polarization.[20] Our inability to identify untruths, let alone to evaluate factual accuracy and reliability, has produced public confusion and distrust with tragic results.[21] A significantly larger number of Americans are getting sick and dying than are residents of other developed nations.[22] This surge in cases illustrates our collective failure.

In this Article, I offer some preliminary ideas for how we might engage in a collective project to enable our government to improve its capacity to help us understand and respond to a future existential health threat.[23] I first deconstruct the government informing process to analyze the points of information contestation based upon the realities we are experiencing.[24] I then outline a project to create a space in which respected experts mediate knowledge claims and moderate contested opinions regarding the human

Communities, LAWFARE (July 9, 2020, 5:01 AM), https://www.lawfareblog.com/topic/arbiters-truth [https://perma.cc/X59K-NG4H]; Jon Patja Howell, *The Lawfare Podcast: Hany Farid on Deep Fakes, Doctored Photos and Disinformation*, LAWFARE (July 23, 2020, 5:01 AM), https://www.lawfareblog.com/topic/arbiters-truth [https://perma.cc/X59K-NG4H]; Jon Patja Howell, *The Lawfare Podcast: Jane Lytvynenko on Debunking the Disinformation Garbage Fire*, LAWFARE (July 16, 2020, 5:01 AM), https://www.lawfareblog.com/topic/arbiters-truth [https://perma.cc/X59K-NG4H].

    20.   The Pew Research Center provides an interactive website for analyzing public attitudes on issues by party affiliation, among other criteria. *See Explore the Data*, PEW RES. CTR., https://www.pewresearch.org/pathways-2020/ [https://perma.cc/HR9F-8AJS].

    21.   According to a report by the New York Academy of Medicine, an important predictor of public willingness to follow government advice is whether the public trusts official instructions. ROZ D. LASKER, N.Y. ACAD. OF MED., REDEFINING READINESS: TERRORISM PLANNING THROUGH THE EYES OF THE PUBLIC, at ii, vii (2004), https://tools.niehs.nih.gov/wetp/public/hasl_get_blob.cfm?ID=1395 [https://perma.cc/4MPA-4Q82].

    22.   *See COVID-19 Dashboard by the Center of Systems Science Engineering (CSSE) at Johns Hopkins*, JOHNS HOPKINS U. & MED. CORONAVIRUS RESOURCE CTR. (Aug. 23, 2020, 8:28 PM), https://coronavirus.jhu.edu/map.html [https://perma.cc/87DQ-CBSC]. As of July 15, 2020, American case numbers were significantly increasing while most nations were controlling the spread. *See id.* The Johns Hopkins University School of Medicine Coronavirus Resource Center provides real-time disease-tracking. *See id.*

    23.   I am not proposing that this project address the panoply of government communications associated with a pandemic threat. Moreover, I suggest limiting the project's jurisdiction to the challenge of communicating messages concerning threat assessment, which is the predicate for government response actions. Threat assessment is essential both at the prodromal stage of determining the threat's existence and during the ongoing management of the crisis it initiates. It requires evaluating the danger, the immediacy, and the uncertainty. *See* JOSHUA M. SHARFSTEIN, THE PUBLIC HEALTH SURVIVAL GUIDE 62, 65, 67, 69 (2018).

    24.   I leave to others to analyze President Trump's behavior; I seek only to examine the systemic weaknesses he has exposed.

risk of, and government response to, a public health threat. This idea embraces the ambitious goal of educating and engaging citizens as active consumers of probably correct information.

Our challenge is to design a government-sponsored space that is also maximally insulated from political influence. Through this project, the government can secure, share, and exchange accurate information to earn the public's trust.[25] For their part, citizens can engage as active participants in a dynamic information exchange process. This "communicative action"[26] should promote informed decision-making that prioritizes protection of the public's health.

At the outset, I concede that a public information space open to all voices, which is mediated and moderated by experts, is predicated upon the assumption that a sufficient proportion of Americans are willing to talk to each other without regard to their differences, be they race, age, gender, occupation, education, or income. Admittedly, given our current politics and social media environment, informed conversations may prove elusive. Nevertheless, I believe we can build public trust in a shared knowledge base that will improve the government's capability to respond effectively when there is a serious threat to the public's health. Citizens who learn to navigate the information space can make better decisions for their own health and that of our democracy. If the ambitious goal proves unattainable, we can settle for identifying the untruths and undermining their salience.

II. GOVERNMENT'S RESPONSIBILITY FOR ACCURACY: DECONSTRUCTING THE INFORMING PROCESS

As a predicate for the project I propose, it is useful to deconstruct the general elements of the present unidirectional informing process by which the government constructs messages about a pandemic threat. What I call

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25.   One form of citizen involvement might be "trust but verify." *See* Amen Ra Mashariki, *Trust but Verify: How Open Data Connects Gov and Citizens*, GOVLOOP (July 20, 2018), https://www.govloop.com/community/blog/trust-but-verify-how-open-data-can-bring-trust-between-government-and-citizens/# [https://perma.cc/Y77K-26TP].

26.   I borrow the term from Habermas, not to apply his theory, but to describe the act of individuals engaging in deliberation and argumentation as a form of cooperative engagement. *Cf.* JÜRGEN HABERMAS, 1 THE THEORY OF COMMUNICATIVE ACTION: REASON AND THE RATIONALIZATION OF SOCIETY 10 (Thomas McCarthy trans., Beacon Press 1984) (1981).

the government informing process for communicating risk and response has a beginning—the "sensemaking" that marshals data and facts to understand the threat—and an end—crafted messages explaining the danger and proposed actions.[27] In between, there are a variety of investigative and deliberative processes contributing to message content. I am not suggesting that there exists a template that separately identifies the procedural components of message development.[28] Rather, I intend this discussion as an analytical tool for considering how we might improve both governments' and citizens' capabilities to negotiate for accurate and reliable information.

A pandemic creates numerous challenges.[29] As an initial threat, when messaging may be most critical, knowledge is most incomplete. While it may be imperative for government to intervene early and for citizens to sacrifice, public skepticism inhibits these efforts. The situation presents a paradox: a fearful public seeks the security of certitude from government leaders, not a discourse on the probability of correctness; but officials risk undermining their credibility if their decisions are proven incorrect by subsequent developments.[30] As events unfold, the public receives a plethora of unmediated information from a variety of sources, some of which conflict with and are dismissive of official messages.[31] Determining reality can be confusing.[32]

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27. Arjen Boin & Cynthia Renaud, *Orchestrating Joint Sensemaking Across Government Levels: Challenges and Requirements for Crisis Leadership*, J. LEADERSHIP STUD., Autumn 2013, at 41, 42–43 (2013); *see also* SHARFSTEIN, *supra* note 23, at 71.

28. Writings about communications strategies often examine operational considerations, such as timing, messenger, and delivery, more than content input. *See, e.g.*, *Crisis & Emergency Risk Communication (CERC)*, CENTERS FOR DISEASE CONTROL & PREVENTION, https://emergency.cdc.gov/cerc/index.asp [perma.cc/V56J-4D8V] (last reviewed Jan. 23, 2018) (providing a manual and website drawing upon lessons from past public health emergencies to offer guidance in emergency risk communication).

29. *See* Leslie E. Gerwin, *Planning for Pandemic: A New Model for Governing Public Health Emergencies*, 37 AM. J.L. & MED. 128, 129–30, 134, 135, 136, 139 (2011).

30. *Id.* at 141; *see, e.g.*, BARBARA REYNOLDS, CTRS. FOR DISEASE CONTROL & PREVENTION, CRISIS AND EMERGENCY RISK COMMUNICATION: PANDEMIC INFLUENZA 7 (2007), https://emergency-origin.cdc.gov/cerc/resources/pdf/cerc-pandemicflu-oct07.pdf [perma.cc/DQ7Z-MSJB]. Ironically, government disease prevention can sometimes be viewed as overreaction.

31. *See* Scott C. Ratzan et al., *COVID-19: An Urgent Call for Coordinated, Trusted Sources to Tell Everyone What They Need to Know and Do*, NAT'L ACAD. MED. (Mar. 5, 2020), https://nam.edu/covid-19-an-urgent-call-for-coordinated-trusted-sources-to-tell-everyone-what-they-need-to-know-and-do/ [https://perma.cc/4F7N-4PGV].

32. City Univ. London, *COVID-19 Information Overload Leads to Simple but Unhelpful Choices*, PHYS.ORG (Apr. 1, 2020), https://phys.org/news/2020-04-covid-overload-simple-unhelpful-choices.html [perma.cc/7754-PD3L].

We could argue that the government's capacity to secure public trust in its messaging, given the current challenges, is a fool's errand. Notwithstanding the Trump Administration's idiosyncratic leadership, even if a unified government offered a single message, it would be but one voice in a cacophony of competing claims. Government would struggle to overcome the untruths that achieve salience and acceptance by those who do not want to sacrifice or accept inconvenience. Before acceding to this cynicism, however, let us dissect the challenges confronting the current informing process.

The building block of the informing process is a knowledge base consisting of data and facts.[33] The distinction is useful in recognizing that neither numbers nor narrative accounts provide a complete picture of the threat. Data, whether numerical or descriptive, are bits of information, most often empirically grounded.[34] Numbers are not more accurate than words: both are subject to error.[35] Mark Twain reportedly stated that "there are three kinds of lies: lies, damned lies, and statistics."[36] He is also credited with claiming, "Figures don't lie, but liars will figure."[37] An advocate unencumbered by a desire for accuracy can secure statistical support for a

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33. I use these terms colloquially to refer to the different sources and types of contributions to knowledge. *See, e.g.*, *Fact*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/fact [perma.cc/K97M-AU9U]; Mark Graban, *Data vs. Facts, Illustrated*, LEAN BLOG (Jan. 21, 2010), https://www.leanblog.org/2010/01/data-vs-facts-illustrated/ [https://perma.cc/QJ3N-5VSQ].

34. Quantitative data refers to numerical calculation guided by accepted formulaic or algorithmic operations; qualitative data is descriptive and drawn from human observations conducted in a less structured process. *See* XAVIER UNIV. LIBRARY, QUALITATIVE VERSUS QUANTITATIVE RESEARCH (2012), https://www.xavier.edu/library/students/documents/qualitative_quantitative.pdf [https://perma.cc/45AF-NZJN]. This distinction is also used in characterizing the purpose and nature of research projects in addition to the types of data collected. *See, e.g.*, *id.*

35. While qualitative data are subject to human error, statistical data are only as reliable as the numbers used in the calculations. Kalev Leetaru, *Lies, Damned Lies and Statistics: How Bad Statistics Are Feeding Fake News*, FORBES (Feb. 2, 2017, 8:50 PM), https://https://www.forbes.com/sites/kalevleetaru/2017/02/02/lies-damned-lies-and-statistics-how-bad-statistics-are-feeding-fake-news/#79e6fb1f50ca [https://perma.cc/4XUA-VY9Y]. Philosopher Stengenga explores how faulty processes of data collection and interpretation can engender and perpetuate misunderstandings of the effectiveness of medical interventions. *See, e.g.*, JACOB STEGENGA, MEDICAL NIHILISM 23–68 (2018).

36. *See* Leetaru, *supra* note 35.

37. *See* J.W. Sayles, *Sayles: 'Figures Don't Lie, but Liars Figure,'* GLOBE GAZETTE (Sept. 23, 2020), https://globegazette.com/opinion/sayles-figures-dont-lie-but-liars-figure/article_f01805ec-bd10-5628-9aed-5627b58e7e37.html [https://perma.cc/ZU9P-BP6K].

message by working backward from the desired conclusion, manipulating the methodology to produce corroborating data.[38]

A fact is a piece of information having an objective reality that makes it true.[39] Facts can be marshalled to provide context and meaning. If data paint a picture of a particular moment, facts can be used to construct a narrative that gives context.[40] Significantly, while the statements may be true, the interpretation can still be debatable. Compare the statements "the disease was lethal, killing several people" and "out of 1000 people who contracted the illness, five died and 9,995 fully recovered." Even when using only accurate statements, the ability of facts to inform can be compromised by an interlocutor who overstates or underestimates the data or who reports incomplete information. In pandemic messaging, it is an important statement of fact that something is unknown because the data are insufficient. Despite their shortcomings, data and facts provide the evidentiary base for analyzing and predicting disease behavior.[41]

Facts are distinguishable from opinion.[42] Failure to honestly maintain this distinction endangers informed debate. As Hannah Arendt explained:

> For, seen from the viewpoint of the truthteller, the tendency to transform fact into opinion, to blur the dividing line between them, is no less perplexing than the truthteller's older predicament . . . [that when he] tries to communicate his truth to the multitude . . . it disappears in the diversity of views . . . .[43]

Into the strategic arsenal of dismissing inconvenient facts as opinion has come the new phenomenon of "alternative facts," which are untruths

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38. Pharmaceutical companies notably design clinical trials to generate data of their product's benefits. *See* JOSEPH DUMIT, DRUGS FOR LIFE: HOW PHARMACEUTICAL COMPANIES DEFINE OUR HEALTH 19–20, 102–03 (2012). *See generally* JOEL BEST, DAMNED LIES AND STATISTICS (2012); DARRELL HUFF, HOW TO LIE WITH STATISTICS (1954).

39. *See supra* notes 32–34 and accompanying text. As used here a datum can be a fact; but facts are not always data.

40. *See, e.g.*, Jon-Arild Johannessen, Johan Olaisen & Bjørn Olsen, *Aspects of a Systemic Philosophy of Knowledge: from Social Facts to Data, Information and Knowledge*, 31 KYBERNETES 1099, 1101, 1106–08 (2002), http://https://www.emerald.com/insight/content/doi/10.1108/03684920210436363/full/html [https://perma.cc/9HQU-M98J].

41. *See* NAT'L ACADS. OF SCI., ENG'G & MED., USING 21ST CENTURY SCIENCE TO IMPROVE RISK-RELATED EVALUATIONS 79–89 (2017).

42. *See infra* notes 58–61 and accompanying text. Even computers can be programmed to separate fact from opinion. *See generally* HONG YU & VASILEIOS HATZIVASSILOGLOU, TOWARDS ANSWERING OPINION QUESTIONS: SEPARATING FACTS FROM OPINIONS AND IDENTIFYING THE POLARITY OF OPINION SENTENCES (2003), https://www.aclweb.org/anthology/W03-1017.pdf [https://perma.cc/QHV8-57WV].

43. Hannah Arendt, *Truth and Politics*, NEW YORKER, Feb. 1967, at 49, 52.

advanced as reality.[44] This politicization of facts has moved the message development debate backwards from disputes over interpretation and opinions to a contestation over objective reality. This development compromises our capacity to create a shared knowledge base from which we can construct effective collective responses. If we are arguing over the threat's existence, we are distracted from considering how to optimize health protections. There are significant risks associated with pandemic threat messaging in a "post-truth" era,[45] in which "truthiness"[46] and ideological commitment become acceptable bases for policy decisions.[47]

That the need for factual accuracy produces conflict between the politics of power and the responsibility of the powerful is not a new development. Hannah Arendt famously observed that "no one has ever doubted that truth and politics are on rather bad terms with each other, and no one, as far as I know, has ever counted truthfulness among the political virtues."[48] Despite using the rhetoric of truth, Arendt's observations are helpful in understanding our current dilemma. Arendt considers facts to be determinable without interpretation despite facts being the "invariable outcome of men living and acting together."[49] Facts are not debatable;

44.   *See Alternative Facts*, DICTIONARY.COM, https://www.dictionary.com/e/slang/alternative-facts/ [https://perma.cc/A3Y4-EU4F]. Trump presidential counselor Kellyanne Conway coined the term when challenged to defend false statements made by the president's press secretary. *Id.* She appeared to suggest that political discourse need not conform to reality. *See id.*

45.   Oxford Dictionary named "post-truth" the word of the year in 2016, meaning "relating to or denoting circumstances in which objective facts are less influential in shaping public opinion that appeals to emotion and personal belief." *Word of the Year 2016*, OXFORD LANGUAGES, https://languages.oup.com/word-of-the-year/2016/ [https://perma.cc/FJ2Q-ZJ2H].

46.   Stephen Colbert has coined the term "truthiness" to refer to the belief or assertion that a statement of fact is felt to be true even if not objectively so. Mallory Schlossberg, *One of the Best Moments on 'Colbert Report' Was When He Coined 'Truthiness' in 2005*, BUS. INSIDER (Dec. 18, 2014, 12:03 PM), https://www.businessinsider.com/the-colbert-report-truthiness-clip-2014-12 [https://perma.cc/UAZ6-RRBY]; *see also* FARHAD MANJOO, TRUE ENOUGH: LEARNING TO LIVE IN A POST-FACT SOCIETY 13, 25 (2008).

47.   Michael D. Shear et al., *Inside Trump's Failure: The Rush to Abandon Leadership Role on the Virus*, N.Y. TIMES (July 18, 2020), https://www.nytimes.com/2020/07/18/us/politics/trump-coronavirus-response-failure-leadership.html [https://perma.cc/5GYZ-44G7]; Eric Joseph van Holm et al., *The Impact of Political Ideology on Concern and Behavior During COVID-19*, SSRN (Apr. 13, 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3573224 [https://perma.cc/8LWP-89S8].

48.   Arendt, *supra* note 43, at 49.

49.   *Id*. at 50.

they are discoverable and verifiable.[50] For the purposes of discussion, Arendt accedes to a distinction between factual truths and rational truths in a discussion that echoes the differentiation between data and fact used in this Article. "Rational truths enlighten human understanding," while factual truth, which is more chaotic, informs opinions.[51] Factual truths are not self-evident and thus are more fragile due to human error or bias.[52] Both are subject to challenge as unreliable and immaterial.[53]

Arendt's analysis provides a perspective on the current antagonism between "factual truth," and the politicization of facts. A leader concerned primarily with maintaining power must seek to hide, rebut, or diminish the salience of inconvenient facts. Arendt asserts that an authoritarian leader could not long sustain a consequential lie because he would be incapable of maintaining the distorted reality,[54] but Arendt could not foresee the new communications environment. Alternative facts can be quickly disseminated and validated by social media posts, internet sites, and cable news networks. Dressing lies in the rhetoric of alternative facts may sufficiently change the reality by creating bubbles in which untruths are sustained until it is too late to prevent their damage.[55] The coronavirus is spreading in such a communications landscape. Populist leaders who attack both experts and expertise invoke alternative "authoritative" sources to validate their alternative facts.[56] Their objective need not be accuracy as it is often sufficient to maintain their power by promoting distrust of

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50.   *See id.*
51.   *Id.* at 56.
52.   *See id.* at 50.
53.   *See id.* at 49–50.
54.   *See id.* at 76.
55.   *See* Rebecca J. Rosen, *Truth, Lies, and the Internet*, ATLANTIC (Dec. 29, 2011), https://www.theatlantic.com/technology/archive/2011/12/truth-lies-and-the-internet/250569/ [https://perma.cc/3674-QV8C].
56.   The attack on experts is a modern populist trope for undermining facts that challenge the leader's agenda. Courting a political base with an "us against them" trope, a populist leader characterizes the expert as outside the polity and unconcerned with their welfare. Attacks may be directed at the idea of expertise or at particular expert proffering inconvenient facts. *See* JAN-WERNER MÜLLER, WHAT IS POPULISM? 3–4 (2016); Michael Specter, *How Anthony Fauci Became America's Doctor*, NEW YORKER (Apr. 10, 2020), https://www.newyorker.com/magazine/2020/04/20/how-anthony-fauci-became-americas doctor?itm_content=footer-recirc [https://perma.cc/3P2D-MZUH]; Jonathan Gerwin Leslie, Fear and Insecurity: Competing Narratives of the Iran-Israel Relationship 79, 82 (2019) (unpublished Ph.D. dissertation, University of London) (on file with author, University of London).

opponents.[57] Arendt also notes that another aspect of the tension between politics and truth is the antagonism between fact and opinion. She writes, "In Hobbes, for instance, we still read of an opposition of two contrary faculties: 'solid reasoning' and 'powerful eloquence,' the former being grounded upon principles of truth, the other upon opinions . . . and the passions and interests of men, which are different and mutable."[58] She reminds her reader that James Madison maintained that opinions are fundamental to government because no leader could secure power without the support of like-minded people.[59] She observes, however, that in her modern age there was both an unprecedented tolerance for "so many diverse opinions" and an increased hostility to diversity by groups whose profit or pleasure is threatened by fact.[60] One strategy of the latter was thus to delegitimize fact by transforming it into opinion. Arendt explains, "Unwelcome opinion can be argued with, rejected, or compromised upon, but unwelcome facts possess an infuriating stubbornness that nothing can move except plain lies."[61]

   As much as the late 1960s were a period of social upheaval,[62] Arendt could not anticipate the complexity and volume of factual claims that are now being generated and produced by computer-assisted technology. In his book, *The Signal and the Noise*, Nate Silver examined this challenge of too much factual material.[63] He wrote of the need to distinguish between useful and confounding information when making predictions.[64] Silver saw irony in the proliferation of knowledge while the "gap between what we know and what we think we know may be widening."[65] In a world of increasing and distracting noise, he argued that those seeking to distinguish the signal are inevitably influenced by their biases.[66] As biases often transform

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57.   *See* Leslie, *supra* note 56, at 79, 82. President Trump's conjuring up "the deep state" is aimed at creating distrust of his political enemies. *See* David Rohde, In Deep: The FBI, the CIA, and the Truth About America's Deep State 179–80, 184 (2020).
58.   Arendt, *supra* note 43, at 50 (quoting Thomas Hobbes, Leviathan 671 (1651)).
59.   *Id.*
60.   *Id.* at 51.
61.   *Id.* at 54.
62.   *See generally id.*
63.   Nate Silver, The Signal and the Noise: Why so Many Predictions Fail – But Some Don't 3 (2012).
64.   *Id.* at 14.
65.   *Id.* at 45.
66.   *See generally id.*

opinion into fact, Silver's observation complements and updates Arendt's framing. Whereas she was concerned with factual truths of the past to understand the present, Silver is looking at signal truths to predict the future. Both of them illuminate the present difficulties in achieving a shared factual predicate for conducting informed debate.

While public attention is drawn to the issues concerning the quality and volume of factual claims, there is also a problem associated with insufficient information. Where fact collection is not curated, there is no evident mechanism for assuring the knowledge base is complete. In normal times, regulatory decisions are subject to a mandated process in which all interests are invited to be heard.[67] Judicial review exists to determine whether a decision is arbitrary due to its failure to consider essential information.[68] By contrast, an emergency necessitated by a threat to the public's health may obviate the requirement of judicial review.[69] Rather, the imperative for immediate action requires an expedited assessment of the threat calculus. While understandable, this is also problematic.[70] One obvious problem occurs if a political leader exploits the emergency to control the information process so as to deliberately exclude inconvenient facts. Yet, even in the absence of malfeasance, the need for immediate action curtails the capacity of investigation to discover the less obvious, but still knowable, facts.

This poses both a systemic and political problem. Public health is a discipline that addresses the needs of the population to maintain its health as part of a collective.[71] Subpopulations are not excluded from this mandate, and public health officials are increasingly sensitive to the social determinants of health. Even in the best of times, however, limited resources often prioritize interventions of universal applicability.[72] In a crisis, well-meaning

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67. For example, the Administrative Procedures Act specifies a process for hearing and considering citizen input. *See* Administrative Procedures Act, 5 U.S.C. § 553(c) (2018). While there are no formal requirements for issuance of an executive order, a citizen who can satisfy the justiciability requirements can bring a legal challenge. *See id.* The court may then consider whether the executive has adequately justified the action. *See* 5 U.S.C. § 555(b).

68. Citizens to Pres. Overton Park, Inc. v. Volpe, 401 U.S. 402, 410 (1971).

69. *See* Gerwin, *supra* note 29, at 151.

70. *Id.* at 151–52.

71. The Institute of Medicine defined public health in 1988 and subsequently affirmed its definition, as what "we as a society do collectively to assure the conditions in which people can be healthy." *See* COMM. FOR THE STUDY OF THE FUTURE OF PUB. HEALTH, INST. OF MED., THE FUTURE OF PUBLIC HEALTH 1 (1988); COMM. ON ASSURING THE HEALTH OF THE PUBLIC IN THE 21ST CENTURY, INST. OF MED., THE FUTURE OF PUBLIC'S HEALTH IN THE 21ST CENTURY 2 (2003).

72. *See* COMM. ON ASSURING THE HEALTH OF THE PUBLIC IN THE 21ST CENTURY, *supra* note 71, at 2–3. While overlapping concepts, some distinguish public health from

officials may lack the capacity to conduct a granular inquiry into the characteristics of minority subpopulations and thereby discover the disparate impact of the disease or the failure of a response measure to provide a benefit. The government fails in its responsibility to protect the health of all Americans if it omits consideration of group characteristics disparately threatened by a pandemic.[73]

The concept of social fact developed by Emile Durkheim is instructive for thinking about the knowledge base needed to construct meaningful messages about a pandemic threat and especially to acknowledge and address societal inequalities.[74] Durkheim maintains that social facts comprise "a category of facts which present very special characteristics: they consist of manners of acting, thinking and feeling external to the individual, which are invested with a coercive power by virtue of which they exercise control over him."[75] They are generated collectively and thus include group values and beliefs that account for the observable behaviors and choices of individuals and discrete communities.[76] We have largely consigned social fact identification

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population health, particularly operationalizing the government's public health responsibilities. Public health as a government enterprise has evolved as a national effort to promote the health of the overall population with attention to the disparities in the health of communities and subpopulations. *See id.* at 2. As government entities responsive to political concerns, public health agencies proceed from this collectivist perspective to incorporate community and subpopulation concerns. By contrast, the focus on health of populations can be both a government and private enterprise. Kindig and Stoddart define population health as beginning as a research field that examines "the health outcomes of a group of individuals, including the distribution of such outcomes within the group," and they argue "that the field of population health includes health outcomes, patterns of health determinants, and policies and interventions that link these two." David Kindig & Greg Stoddart, *What is Population Health?*, 93 AM. J. PUB. HEALTH 380, 380–81 (2003). Population health can focus on an entire population or a select sub-population, and emphasizes the influences of societal structures, attitudes, and behaviors on health. *See id.* at 381.

   73. See *infra* notes 121–22 and accompanying text, for a discussion on the disparate impact of COVID-19 on populations.

   74. *See* EMILE DURKHEIM, THE RULES OF SOCIOLOGICAL METHOD 50–52 (Steven Lukes ed., W.D. Hall trans., Free Press 1982) (1895).

   75. *Id.* at 76.

   76. I argue that it is imperative that we seek social facts as material information for effectively addressing the needs of social groups even if such facts are neither obvious nor empirical. Carol Greenhouse has argued that Durkheim's concern for the moral legitimacy of public authority could help us recognize "that pleasure is not the natural enemy of responsibility, security levies no necessary tax on liberty, justice requires neither law nor social distance, the value of a person's life cannot be monetized, and science flourishes

to the academy, where anthropologists and sociologists employ social facts in understanding social policies.[77] Considering how to adapt the concept to public policy making highlights a deficiency in the present informing process.

The idea that members of certain subpopulations do not see themselves, and are not seen as, fitting into the general whole suggests that government officials do not seek to understand the different realities of these groups.[78] The disaggregation of the data on COVID-19 incidence and deaths by race showed the consequences of overlooking consideration of social facts. It took weeks for the federal government to acknowledge the data revealing African Americans suffered disproportionately from COVID-19.[79] This disparity could not be explained by inherent genetic racial differences.[80] The government failed to look behind the numbers to examine occupational dangers.[81] Thus, officials overlooked the fact that low-wage "essential workers," who maintain the supply chain and perform the municipal services, many of whom are minorities forced to work to preserve their post-pandemic employment, faced an increased risk.[82] Higher mortality

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when it does not discount what it cannot see." Carol J. Greenhouse, *Durkheim and Law: Divided Readings over Division of Labor*, 7 ANN. REV. L. & SOC. SCI. 165, 182 (2011).

77.   *See* Karen Ho et al., *What Happened to Social Facts?*, 212 AM. ANTHROPOLOGIST 160, 160 (2019). In the age of alternative facts, in which not all facts are equally valid, scholars have struggled to articulate how to distinguish social facts that contribute accurate meaning from those that characterize a collective belief contradicted by reality.

78.   Historically, American leaders have often taken note of minorities by pinning on them the blame for the disease. These messages have served as a tactic to appease fearful masses. *See* Markel and Potts, *supra* note 13; *see also* Felice Batlan, *Law in the Time of Cholera: Disease, State Power, and Quarantines Past and Future*, 80 TEMP. L. REV. 53, 61, 98–99 (2007) (describing how Hawaiian officials burned down most of Chinatown in response to a cholera outbreak).

79.   *See* Darryl Coote, *White House: African Americans Disproportionately Affected by COVID-19*, UPI (Apr. 8, 2020, 3:07 AM), https://www.upi.com/Top_News/US/2020/04/08/White-House-Americans-disproportionately-affected-by-COVID-19/6851586323394/ [https://perma.cc/ZL6H-RCB9].

80.   *See generally* DOROTHY ROBERTS, FATAL INVENTION: HOW SCIENCE, POLITICS, AND BIG BUSINESS RE-CREATE RACE IN THE TWENTY-FIRST CENTURY 23–25 (2011).

81.   In acknowledging the racial disparity Trump ignored the societal-created risk. As to the higher incidence, he claimed, "There's nothing we can do about it right now . . . ." Coote, *supra* note 79.

82.   *See, e.g.*, Rachel Garfield, *Double Jeopardy: Low Wage Workers at Risk for Health and Financial Implications of COVID-19*, KFF (Apr. 29, 2020), https://www.kff.org/coronavirus-covid-19/issue-brief/double-jeopardy-low-wage-workers-at-risk-for-health-and-financial-implications-of-covid-19/ [https://perma.cc/J87E-92ZH]. Kaiser Family Foundation website contains many analyses on the disparate impact on low wage workers. *See, e.g.*, *id.* (presenting a demographic profile).

rates among other racial minorities also underscored America's social fractures and our failure to compile a complete knowledge base.[83]

Adapting the concept of social fact addresses the need to account for the risk and fears, including the loss of agency, of marginalized populations, overlooked in both messaging and policy. At a minimum, acknowledging the need to consider the social and cultural dynamics that explain observable data directs the conversation towards incorporating equity and social justice in response measures. Treating as fact the conditions that influence the group members' self-perception, and their views of reality, can produce more effective messaging and government action.[84]

The absence of a social fact concept desensitizes both officials and the public to special group needs in general. Officials overlooked and initially refused to collect statistics on identifiable collectives experiencing high rates of illness and deaths, including residents and caregivers in nursing

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83. Tiffany Ford, Sarah Reber & Richard V. Reeves, *Race Gaps in COVID-19 Death Are Even Bigger than They Appear*, BROOKINGS (June 16, 2020), https://www.brookings.edu/blog/up-front/2020/06/16/race-gaps-in-covid-19-deaths-are-even-bigger-than-they-appear/ [https://perma.cc/GRA6-2FVA]. Notably, there was little effort to ensure the completeness of data among some minorities, such as American Indians and Alaska Natives. *See generally id.*

84. Remarkably, during the pandemic, a video showing a police officer killing of an unarmed black man unleashed protests that captured the nation's attention. Evan Hill et al., *How George Floyd Was Killed in Police Custody*, N.Y. TIMES (May 31, 2020), https://www.nytimes.com/2020/05/31/us/george-floyd-investigation.html [https://perma.cc/BLA5-FJ9D]. Historians will investigate whether official neglect of black lives during the pandemic primed the "Black Lives Matter" protests against law enforcement practices. The moment, however, implicitly recognized a role for social facts. *See* BRANDI COLLINS-DEXTER, CANARIES IN THE COAL MINE: COVID-19 MISINFORMATION AND BLACK COMMUNITIES 3, 12, 18 (2020), https://shorensteincenter.org/wp-content/uploads/2020/06/Canaries-in-the-Coal-Mine-Shorenstein-Center-June-2020.pdf [https://perma.cc/JY34-TFJ7]. The author's study speaks of the twin pandemics of racism and illness and details the information vacuum that results in "misinformation" about, as well as targeted to, Black communities. *See generally id.* Correcting messaging requires understanding that sourcing may be external as well as organic. *See also* Jayoung Kim, *Equality, Inclusion, and Diversity in Healthcare During the COVID-19 Pandemic*, 24 INT'L NEUROUROLOGY J. 180, 180 (2020); Patricia Fernandez-Kelly, *A Sociological Note on George Floyd's Death and the Pandemic*, SOC. SCI. RES. COUNCIL (June 18, 2020), https://items.ssrc.org/covid-19-and-the-social-sciences/society-after-pandemic/a-sociological-note-on-george-floyds-death-and-the-pandemic/ [https://perma.cc/4ZK4-Y389].

homes[85] and workers in meatpacking plants.[86] Public pressure and media stories may reveal such disparities, particularly when they endanger the larger community, but there is no process to ensure discovery of these data.

The inadequacy of the knowledge base and the contestation over what constitutes fact infects the quality of the debate over interpretation and opinions. Traditionally, the debate space allows interlocutors to test the soundness of their opinions, the accuracy of their narratives, and the wisdom their recommendations.[87] Without a consensus on a factual predicate, debate becomes political theatre. The COVID-19 experience challenges Daniel Patrick Moynihan's famous observation that "[e]veryone is entitled to his own opinion, but not to his own facts."[88] We are relying upon a patchwork of private sector monitoring of untruths,[89] while the First Amendment protects content creators from government policing.[90] Those who maintain

85.   *See, e.g.*, Marie Albiges, *Virginia Won't Release Coronavirus Data on Nursing Homes. But Now the Federal Government Will*, VIRGINIAN-PILOT (May 12, 2020, 10:23 AM), https://www.pilotonline.com/news/health/vp-nw-coronavirus-nursing-homes-data-20200512-yyezyjleorh4rciufe3rglhnbq-story.html [https://perma.cc/UUL9-3BCG].

86.   Rachel Maddow, *Marked Change in Tone in CDC Meat Plant Reports Raises Questions*, MSNBC (May 1, 2020), https://www.msnbc.com/rachel-maddow/watch/marked-change-in-tone-in-cdc-meat-plant-reports-raises-questions-82911301638 [https://perma.cc/BY4T-E4CT] (discussing the backtracking on mandating protections); Mary Papenfuss, *Nebraska Governor Defends Decision to Hide COVID-19 Stats at Specific Meatpacking Plants*, HUFFINGTON POST (May 8, 2020, 11:45 AM), https://www.huffpost.com/entry/rachel-maddow-pete-ricketts-nebraska-meatpacking-plants-coronavirus_n_5eb5ef86c5b69c4b317 a69d1 [https://perma.cc/VD7H-NQ2A]. During the news cycle that highlighted the problem, the CDC documented the extent of the suffering. Jonathan W. Dyal et al., *COVID-19 Among Workers in Meat and Poultry Facilities – 19 States, April 2020*, CENTERS FOR DISEASE CONTROL & PREVENTION (May 8, 2020), https://www.cdc.gov/mmwr/volumes/69/wr/mm 6918e3.htm [https://perma.cc/Q4D6-VKNQ].

87.   *See* Adam J. White et al., *Philadelphia Statement on Civil Discourse and Strengthening of Liberal Democracy*, NEWSWEEK (Aug. 11, 2020, 6:30 AM), https://www.news week.com/philadelphia-statement-civil-discourse-strengthening-liberal-democracy-opinion-1522518 [https://perma.cc/XEZ7-4DPG].

88.   DANIEL PATRICK MOYNIHAN, A PORTRAIT IN LETTERS OF AN AMERICAN VISIONARY 2 (Steven R, Weisman ed. 2010).

89.   Chloe Hadavas, *When Does Flagging False Content on Social Media Backfire?*, SLATE (Apr. 30, 2020, 6:10 PM), https://slate.com/technology/2020/04/flagging-fake-news-social-media-backfire.html [https://perma.cc/5373-XXLX]; Arjun Sha, *10 Best Fact-checking Websites on The Internet*, BEEBOM (May 6, 2020, 5:26 PM), https://beebom. com/best-fact-checking-websites/#:~:text=%2010%20Best%20Fact-checking%20Websites% 20on%20The%20Internet,most%20popular%20fact-checking%20websites%20on%20 the. . .%20More%20 [https://perma.cc/JCD8-WLET].

90.   Elizabeth L. Rosenblatt, *Rethinking the Parameters of Trademark Use in Entertainment*, 61 FLA. L. REV. 1011, 1024–27 (2009). Supreme Court jurisprudence frowns on content- and viewpoint-based discrimination. *See, e.g.*, Police Dep't of Chi. v. Mosely, 408 U.S. 92, 101–02 (1972); *cf.* Rosenberger v. Rector & Visitors of the Univ. of Va., 515

that the pandemic is a hoax, or who attack the necessity of public health protections, or who promote using unapproved treatments may express their opinions as fact, whether a law professor,[91] a media commentator[92] or a U.S. President.[93] By conflating evidence and opinion, these speakers foreclose meaningful debate.

A review of the initial experience of the coronavirus pandemic reveals that government officials face a choice of paths in justifying threat messaging requiring factual interpretation and informed opinion. One path involves using predictive models based upon accurate data and facts so as to choose actions that prioritize protecting the public's health.[94] While acknowledging the imprecision of modeling, they can defend the model's value over using political, or even expert, intuition.[95] It may appear counterintuitive, but even when the public craves certitude, messages that admit uncertainty are more reliable. Alternatively, officials unencumbered by accuracy concerns could develop alternative facts or ignore inconvenient ones to justify their preferred action, while remaining rhetorically committed to prioritizing the public's

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U.S. 819, 845 (1995). More recently, the Second Circuit ruled that President Trump could not block access to his Twitter account by critics of his policies and his presidency. Knight First Amendment Inst. at Columbia Univ. v. Trump, 928 F.3d 226, 239–40 (2d Cir. 2019).

    91. Law professor Richard Epstein called the "current organized panic" unwarranted, predicting the death toll would not exceed 5000. *See* Isaac Chotiner, *The Contrarian Coronavirus Theory that Informed the Trump Administration*, New Yorker (Mar. 30, 2020), https://www.newyorker.com/news/q-and-a/the-contrarian-coronavirus-theory-that-informed-the-trump-administration [https://perma.cc/2UZY-V9WM].

    92. Talk show host Tucker Carlson claimed, "As a matter of public health, we can say conclusively the lockdowns we not necessary." Tucker Carlson, *Tucker Carlson: We Were Lied to about Coronavirus and the Mass Lockdowns. Here's the Proof*, Fox News (June 11, 2020), https://www.foxnews.com/opinion/tucker-carlson-we-were-lied-to-about-coronavirus-and-the-mass-lockdowns-heres-the-proof [https://perma.cc/U7B2-ERMU].

    93. *Remarks by President Trump, Vice President Pence, and Members of the Coronavirus Task Force in Press Briefing*, White House (Apr. 6, 2020), https://www.whitehouse.gov/briefings-statements/remarks-president-trump-vice-president-pence-members-coronavirus-task-force-press-briefing-20/ [https://perma.cc/JCC6-6ZL7]. Losers included those who needed the drug and could not get it due to the shortage created by the president's advice. Kashmira Gander, *FDA Says There's a Shortage of Hydroxychloroquine and Chloroquine 'Due to a Significant Surge in Demand'*, Newsweek (Apr. 1, 2020, 11:58 AM), https://www.newsweek.com/fda-shortage-hydroxychloroquine-chloroquine-1495555 [https://perma.cc/353J-H27S].

    94. Inga Holmdahl & Caroline Buckee, *Wrong but Useful—What Covid-19 Epidemiologic Models Can and Cannot Tell Us*, 383 New Eng. J. Med. 303, 303–05 (2020).

    95. *Id.* at 304–05.

health.[96] President Trump admitted using a version of the latter approach when he explained, "I have a feeling that a lot of the numbers that are being said in some areas are just bigger than they're going to be."[97]

Although the government's voice may be one of many competitors for citizens' attention in the public information sphere, the government ultimately remains responsible for the management of threat response.[98] When its factual base and interpretations are the product of magical thinking, the government's ability to inform the public and secure its cooperation is severely comprised.[99] When no effective check on the government's abuse of its informing responsibility exists, the pontification of untruth exacerbates the threat.[100]

Try as he might, Donald Trump could not muster facts to make the pandemic disappear.[101] The virus was not listening. It continued to infect citizens who received inadequate guidance from their government, and who were unable or unwilling to protect themselves. It killed too many of them.

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96.   *See* Arman Azad, *Coronavirus Model Cited by White House Looks to Consider How Many Americans Wear Masks*, CNN (May 20, 2020, 9:14 PM), https://www.cnn.com/2020/05/20/health/model-on-masks-coronavirus/index.html [https://perma.cc/3W6R-N637].

97.   Allyson Chiu & Timothy Bella, *'I Don't Believe You Need 40,000 or 30,000 Ventilators': Trump Questions New York's Plea for Critical Equipment*, WASH. POST (Mar. 30, 2020, 5:47 AM), https://www.washingtonpost.com/nation/2020/03/27/corona virus-trump-fox-ventilator/ [https://perma.cc/54P6-NXZM].

98.   *See* SHARFSTEIN, *supra* note 23, at 12.

99.   In an extraordinary display of magical thinking, the President explained that the spike in the number of cases was occasioned by increased testing, such that if the United States stopped testing there would be few cases. Sonam Sheth, *Trump Says that 'If We Stop Testing Right Now, We'd Have Very Few Cases' of the Coronavirus*, BUS. INSIDER (June 15, 2020, 1:40 PM), https://www.businessinsider.com/trump-stop-coronavirus-testing-right-now-have-very-few-cases-2020-6 [https://perma.cc/9N86-RR8S].

100.   The posture of a pandemic as a declared emergency makes it difficult to hold government officials legally accountable for mistakes in judgment, even if deliberate. *See* Gerwin, *supra* note 29, at 151. Furthermore, a unique feature of the Trump presidency is its refusal to abide by many of the democratic norms that have checked presidential abuse or misuse of power. *See generally* STEVEN LEVITSKY & DANIEL ZIBLATT, HOW DEMOCRACIES DIE (2018).

101.   Crayton Harrison & Mark Schoifet, *U.S. Virus Cases Accelerate While Trump and Governors Move On*, BLOOMBERG NEWS (June 19, 2020, 2:29 PM), https://www.bloomberg.com/news/articles/2020-06-19/u-s-virus-cases-accelerate-while-trump-and-governors-move-on?utm_campaign=pol&utm_medium=bd&utm_source=applenews [https://perma.cc/B56C-AUKN].

III. A PROPOSAL: SEARCHING FOR TRUTH

The coronavirus experience should force a public reckoning with "truth." Instead of message clarity on how the government is protecting us and how we can protect ourselves and others, we have information chaos, exacerbated by our failure to account for new technological and political realities.[102] The government has ceded its leadership as a principal source of accurate information.[103] While there are people in and out of government who seek to provide accurate information and guidance, and to police untruths,[104] the pandemic has revealed that truth is a value about which many Americans are untruthful.

Hence, I suggest that we engage in a project that will help citizens navigate the information chaos of a modern pandemic. As an ideal, the project will facilitate citizen and governmental collaboration through public spheres of information exchange to create a shared knowledge base upon which well-meaning people with differing opinions can engage in informed debate. At a minimum, the project will identify consequential untruths and seek to diminish their salience as public (mis)guidance. This is a project designed to earn the public's trust, but it is also a messy undertaking.

At the outset, let us admit there will be no such thing as a single knowledge base. Rather, all categories of actors—including but not limited to individuals, institutions, informal collectives, civil society organizations, media, and commercial enterprises—are sources of information on a disease threat and its impact. Thus, the project should locate these sources and assist citizens in accessing and evaluating the information they provide.

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102.   Other disciplines have noted the deficiencies in unidirectional decision-making. For example, a mechanical engineering study noted that unidirectional communication may not lead to convergence, while models show that when multiple sources of information interact, they converge upon consensus when each agent sends data to the others. Luc Moreau, *Leaderless Coordination Via Bidirectional and Unidirectional Time-Dependent Communication*, PROC. 42ND IEEE CONF. ON DECISION & CONTROL, Dec. 2003, 3070, 3070–01, 3074–75.

103.   *See* Christian Paz, *All the President's Lies About the Coronavirus*, ATLANTIC (July 13, 2020, 1:56 PM), https://www.theatlantic.com/politics/archive/2020/07/trumps-lies-about-coronavirus/608647/ [https://perma.cc/4EM6-2BXL]. We are also witnessing the disastrous consequences when governments fail to lead effectively. That analysis is beyond the scope of this Article. While accurate messaging without effective leadership is unlikely to ensure an effective response, it may still help people protect themselves.

104.   *See supra* note 89.

The project aims to serve the citizen's information needs while also mediating and moderating the exchange between citizen and government. It seeks to inform and educate in an expansive learning process: enabling unlimited participation in information-sharing that tolerates noise, while helping participants to identify the signals. It also seeks to limit political influence, even as it recognizes political realities. The project does not aim to serve as an encyclopedic source for the evaluation of all information. Rather, its jurisdiction should be limited to addressing issues of accuracy and reliability of actionable information that will assist the public's understanding of the pandemic risk and response.[105] Importantly, the project should have specific proactive responsibilities to ensure that the knowledge base is complete. It should investigate or sponsor social science research to collect missing, but knowable, data and facts about subpopulations whose inclusion in the public dialogue and whose social and cultural characteristics are often overlooked.

This project would be enabled by an architecture defined in law but would be constructed to allow for the flexibility to respond to the uniqueness of each crisis in real-time. The architecture must insulate the project from political influence and minimize the opportunity for capture by elite interests. In a collaborative process, the project should articulate and embrace values that can guide its operation, either as legal requirements or norms, or both, so that it can earn and maintain public trust.

The project should be led by experts from a variety of fields who must be knowledgeable, but epistemically humble; who must be willing to listen, not solely to instruct. Expert facilitators of the project must have no conflicts of interest and no active political associations that will be viewed as compromising their judgment. They must, however, be sufficiently politically savvy to withstand the inevitable attacks on their expertise and their credibility.

Admittedly, this project raises some serious concerns. Might we be condoning censorship if we allow individuals in a government-funded enterprise to engage in devaluating information? Unlike a court of law, in which a learned judge has the training and experience to manage a fact-finding process regarding a past event, can the adversarial process in the

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105. This means it will not address all topics related to the threat. For example, a debate over where and how a disease originated may not be material unless it informs whether to issue a travel advisory. Similarly, the politics of economic relief packages that do not speak to financing health relief measures would be beyond the project's jurisdiction. Arguably, financial well-being affects physical health such that there may be untruthful claims about health effects that are material to the debate.

court of public opinion produce a consensus narrative about an unfolding health threat plagued by uncertainty? Moreover, is there not a surfeit of fact-checking sources, ranging from newspapers to social media platforms, such that we do not need another? Do we need a new government entity?

These and similar questions are not easily answered; we will need to explore them in the process of envisioning this project. Here, I can only initiate the discussion. The ambitious project I envision creates a space for information exchange and education. At a minimum, it consists of a virtual presence as well as other creative platforms for mediating factual claims, monitoring and inviting debate, and identifying and contextualizing untruths. As noted above, and discussed in more detail below, it should be led by officially-appointed, independent, and respected experts, who may in turn share various responsibilities with other knowledgeable individuals.[106] It should engage with all existing fact-checking and information producing entities to enhance the completeness and credibility of the knowledge base. To avoid charges of censorship, it should avoid monopolizing information availability or producing its own threat narrative.

There are three dimensions that inform this project: the foundational values that citizens should see reflected in the work of the project, which should in turn guide the government's messaging; the architecture, which is the essential project design; and operational considerations. I will briefly outline each dimension.

In a project guided by citizens' need for reliable information, the underlying objective is to secure the public's trust. The foundational values are those that contribute to the integrity of the information process. The most obvious is honesty. At a minimum this means avoiding deliberate deception and obfuscation and remaining sensitive to the potential to mislead. It especially means admitting what is uncertain and unknown as

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106.   Wikipedia offers a model of a mediated information site that has proved a trusted source for public information needs. Wikipedia's editors remove unverifiable information as they aim to produce a coherent narrative. *See Wikipedia: About*, WIKIPEDIA, https://en.wikipedia.org/wiki/Wikipedia:About [https://perma.cc/T5BQ-YY5T]. Wikipedia's fact-checking is thus aimed at its primary mission of producing for readers a useful understanding of the topic. *See id.* Our project should build upon, but not repeat, the work of Wikipedia and other sources of pandemic information. Rather, the latter will serve as resources contributing to the mediation of contested claims. For information on the norms and processes of Wikipedia, see JOSEPH MICHAEL REAGLE, JR., GOOD FAITH COLLABORATION: THE CULTURE OF WIKIPEDIA (2010).

matters of fact. Honesty extends as well to distinguishing between fact and opinion.

Transparency is a value that helps ensure honesty. In pandemic messaging, transparency has a procedural and substantive component. The former applies to assuring open debate and avoiding the use of secret information sources without adequate justification. In its proactive form, it means challenging secret or classified proceedings or the use of such information. There should be a presumption against excluding the public.[107] Substantively, transparency dictates that statements of fact and opinions provide their source and that participants reveal any conflicts of interest.[108] It also means eschewing reliance upon anonymous sources.

Information exchange must also be fair, which includes striving for equality, equity, and inclusiveness. Equality refers to the opportunity of all citizens to participate, regardless of their personal characteristics or the perceived value of their contribution.[109] Equity is more challenging, as it entails unequal allocation of resources and outreach to ensure fairness of the outcome.[110] It means evaluating the potential for disparate impact and possibly directing additional attention to those populations who suffer discrimination.[111] Pandemics have historically demonstrated America's

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107. As President Trump publicly assured the public that COVID-19 did not represent a serious threat to Americans, administration officials conducted a secret briefing for legislators, which was not as optimistic. Ben Mathis-Lilley, *Republican Senators Sold Stock After Closed-Door Coronavirus Meetings in Apparent Insider Trading*, SLATE (Mar. 20, 2020, 12:23 AM), https://slate.com/news-and-politics/2020/03/republican-senators-insider-trading-accusations-coronavirus.html [https://perma.cc/FD6B-63B8]. President Trump has admitted that he deliberately misled Americans regarding the severity of the risk that the virus posed a highly contagious and potentially dangerous disease. Maggie Haberman, *Trump Admits Downplaying the Virus Knowing It Was 'Deadly Stuff,'* N.Y. TIMES (Sept. 9, 2020), https://www.nytimes.com/2020/09/09/us/politics/woodward-trump-book-virus.html [https://perma.cc/U7CT-QTQ3]. Although publicly insisting the virus was going to disappear, he indicated to author Bob Woodward that he knew this would not be the case. *Id. See generally* BOB WOODWARD, RAGE (2020).
108. *See* Michael Palanski & Andrea Hickerson, *Journalism Needs to Practice Transparency in a Different Way to Rebuild Credibility*, CONVERSATION (Mar. 22, 2019, 6:44 AM), https://theconversation.com/journalism-needs-to-practice-transparency-in-a-different-way-to-rebuild-credibility-111474 [https://perma.cc/J64W-4NTM].
109. *See* Andy Mason, *Equal Opportunity*, ENCYCLOPEDIA BRITANNICA, https://www.britannica.com/topic/equal-opportunity [https://perma.cc/9NZ4-JDXT].
110. *See Equity and Inequality*, ECON. ONLINE, https://www.economicsonline.co.uk/Managing_the_economy/Inequality_and_equity.html [https://perma.cc/4557-659N].
111. *See supra* note 79 and accompanying text.

societal disparities, most especially its structural racism.[112] So too may pandemics disadvantage some groups more than others.[113] The project should embrace America's diversity and conduct outreach to ensure the voices of the less powerful are heard. Equity thus includes social facts in the knowledge base.

The project architecture should operationalize these values. I submit that the design should facilitate the exchange between government and citizens and among citizens willing to participate. I suggest that we think of project design as a multipurpose platform with a variety of forums. While there are many organizational models, I offer one for the purposes of discussion, bearing in mind the principal objective of serving the public's information needs in a manner that will concomitantly inform government threat messaging.[114]

To fulfill its most basic information function, one forum should serve as a learning opportunity by listing links to all private and public data and fact sources containing information relating to the disease threat and response. The forum would function as an expert curated annotated bibliography for public users, as well as government officials, with the curation offering an evaluation of the reliability of the information on each listed site, thus distinguishing it from an internet search engine.[115] Given the presumption

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112. Sandra Crouse Quinn et al., *Racial Disparities in Exposure, Susceptibility, and Access to Health Care in the US H1N1 Influenza Pandemic*, 101 AM. J. PUB. HEALTH 285, 287 (2011).

113. As part of this discussion, we should address operational arrangements that may discriminate against those lacking access to the Internet because we will expect the project to have a major internet presence as do many information sources. Equity requires addressing America's "digital divide." *See* Everett M. Rogers, *The Digital Divide*, CONVERGENCE, Dec. 2001, at 96, 96–98. *See generally* Michael Mackert et al., *Health Literacy and Health Information Technology Adoption: The Potential for a New Digital Divide*, 18 J. MED. INTERNET RES. 264 (2016).

114. Among the issues within the project's jurisdiction are the following: disease characteristics, risks, infectivity, and severity; situational data, including who is being infected, where they are being infected, incidence of the infection, and prevalence of the infection; case-fatality rates disaggregated by race and other social groupings; and analysis of trends; treatment information, and other information relevant to subpopulations.

115. There are non-governmental sites offering expert evaluation of the scientific literature. *See, e.g.*, AuthorServices, https://authorservices.taylorandfrancis.com [https://perma.cc/L3T8-ZAPR]. These could contribute to the government coordinated effort. One particular site curated by the Johns Hopkins Bloomberg School of Public Health provides public access to and scholarly analysis of emerging research in the SARS-CoV-2 virus and

in favor of listing, the curators would be responsible for crafting narrow criteria that would allow disqualification of a source from the bibliography.[116]

The value in curation rests with the experts' evaluation of the accuracy and reliability of the posted content. This includes identifying bogus and questionable sources. Curators will determine a useful way to express their assessment. They may use qualitative categorical listings, such as high-, some-, low-, and no- confidence, or they may develop a more sophisticated analytical framework that includes assigning numerical values for a variety of characteristics.

A second forum would provide a site for mediating information claims about the threat characteristics and response options. In this forum, expert mediators can assist the public in understanding that the probability of correctness is a more realistic standard than truth. Changing this rhetoric will enhance debate quality and allow for better-reasoned judgments and opinions. Similar to the service performed by the curators in the resource forum, the mediators should also identify evidently erroneous claims of material facts.

Factual material and opinions reviewed in this forum can come from three sources: members of the public who post questions or seek clarification about factual claims or opinions; information posted by any source not disqualified from doing so, for review by project mediators; or claims identified by the project experts, who will monitor sources claiming to be authoritative. Project experts can respond to factual claims from the public by validating the claim, explaining the probability it is correct; rebutting it, providing reliable contradictory evidence of its incorrectness; or contextualizing the claim, showing how it may be misleading or inaccurate.

This forum should complement the work of fact checkers in the media and private sector. The experts may draw upon the work of these sources and other experts when it is necessary to help clarify contested claims on consequential issues in real time. The rapid response may avoid protracted debates that complicate factual resolution and consensus messaging. Consider, for example, whether the early intervention of a credible mediator in the contestation over mask-wearing might have reduced the politicization of

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COVID-19 pandemic. *2019 Novel Coronavirus Research Compendium (NCRC)*, JOHNS HOPKINS BLOOMBERG SCH. HEALTH, https://ncrc.jhsph.edu/ [https://perma.cc/4QKH-X4SM].

116.   The inclusion presumption is a distinguishing feature of the project relative to other information sources that provide cross references. The latter make a judgment, based upon unarticulated criteria, for which sources to include. For example, these can be sites that agree with the bias guiding the site operators. By including but identifying unreliable sources, the project aims to warn against their use.

the science, which would better protect individuals from the spread of the virus.[117]

The work of the forum as an independent government-sponsored process for identifying untruths offers several benefits. Robust oversight of factual claims, particularly relating to issues lacking certitude or consensus, can minimize the danger of information vacuums created by uncertainty or confusion. While there will always be those who seek to capitalize on the absence of information to promote their personal or commercial agendas, they will be subject to an authoritative challenge. In performing this function, the project experts can educate the public to treat such claims with skepticism and to consider the potential consequences of following advice that is not grounded in fact.[118] The project will be a valuable contributor to the government's fulfillment of its leadership responsibilities.

A third forum would provide a space for moderated information exchange.[119] These exchanges can occur in a variety of formats. Project moderators may identify a contested issue and invite specific interlocutors to debate. Alternatively, they may issue an unrestricted invitation to the public to participate in an open forum on a topic. In addition, government officials or agencies may request project moderators to convene a roundtable or workshop to examine an issue related to action they are considering.

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117.   While the CDC reportedly was studying the issue of public mask-wearing, scholarly publications, such as the Mayo Clinic Proceedings, were preparing to go to press with articles making the case for masks. *See, e.g.*, Anna Kaltenboeck & S. Vincent Rajkumar, *The Case For Masks—Health Care Workers Can Benefit Too*, 95 MAYO CLINIC PROC. 1132, 1132 (2020). It is unclear why the CDC and the Surgeon General delayed their recommendations until sometime after the President expressed his distaste for the practice. By the time the Surgeon General broke with the President, he had to battle the narrative that mandating mask-wearing would be an infringement of citizens' liberty. Arman Azad & Susannah Cullinane, *US Surgeon General: Coronavirus Face Masks Promote Freedom*, PHILA. TRIB. (June 15, 2020), https://www.phillytrib.com/news/health/corona virus/us-surgeon-general-coronavirus-face-masks-promote-freedom/article_2dc5cfea-328a-5732-bda0-d5d8e134275b.html [https://perma.cc/7C2V-XPCL]; *see also* Lori Rozsa et al., *The Battle Over Masks in a Pandemic: An All-American Story*, WASH. POST (June 19, 2020), https://www.washingtonpost.com/health/the-battle-over-masks-in-a-pandemic-an-all-american-story/2020/06/19/3ad25564-b245-11ea-8f56-63f38c990077_story.html [https://perma.cc/BY8J-EKLX].

118.   Users of the forum would presumably have many opportunities to learn to question the credibility of the source, the extant or missing data, and, given what is known, the likelihood that the claim will prove correct. The experts can also assess the consequences of following any advice embedded in the claim if it is in fact wrong.

119.   These could take many forms: live, recorded, or online written exchanges.

Among the most contentious issues that will benefit from public debate are those concerning predictions of disease behavior and its threatened impact.[120] Debating these different models informs government decisions. It also offers an opportunity for public education about the impact of uncertainty associated with the threat calculus. The disagreements over predictions, if fact based, demonstrate how hypothesis formulation and testing are not synonymous with uninformed errors. The conversations, whether between experts or between government officials and citizens, can contribute to the goal of helping citizens learn to become active consumers of information. Participants will not necessarily receive answers, but they can learn what questions to ask and how to interpret the contingencies presented to them. The process can help inform realistic expectations.

The overall objective of these interactions is to facilitate real-time consultations, in person or virtually, where parties can inform one another and perhaps even agree to disagree. Needless to say, the process works best if the participants are people of good will. In the event that not everyone embraces the underlying shared values and objectives, the independent moderator assumes the responsibility of challenging erroneous statements and insisting that those expressing opinions explain their factual basis.

This forum would also provide the space for the project to engage members of minority populations, civil society organizations, social scientists, and other groups and individuals with expertise in examining the social facts, the disparate impacts of the threat and response, and the special needs of identifiable groups or subpopulations.[121] At a minimum, the project should conduct outreach to ensure that traditionally muted voices are accorded the agency to represent their interests in these forum deliberations. In addition, in the absence of another governmental unit overseeing the social science data collection and ethnographic research required to understand and consider social facts and cultural conditions of minority groups, the project should assume this responsibility. It should identify missing information related to issues within its jurisdiction and conduct or sponsor appropriate research or investigation.

This overview of the project architecture suggests a few general principles for its design. First, the project architecture must promote dynamic, interactive knowledge development and education processes in real time. Second, the project does not seek to duplicate or supplant the work or the responsibilities assigned to any existing government agency. Rather, it will seek to collaborate

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120.   *See, e.g.*, Holmdahl & Buckee, *supra* note 94, at 303–05.
121.   The latter include traditionally marginalized communities and groups whose interests are not adequately represented in the forums.

in a redesigned government informing process. Third, the project aims to organize and assist in maintaining the knowledge base but not to change its fundamental character as a disparate collective of many sources and sites containing information developed using different methodologies and presented in a variety of formats. Arguably, using "knowledge base" in the singular is confusing. By contrast, the project should serve as a repository of untruths. Fourth, the project should have no active planning or policy advocacy responsibilities. As mentioned above, it should have the proactive capacity to engage or facilitate development of social science information, only to the extent that no other governmental agency is doing so, to ensure a complete knowledge base.

The operational details will follow from the agency design, but I highlight a few fundamental considerations. The project must operate independently of political influence.[122] Its expert members should be identified by their professional peers who recognize their commitment to objectivity and honesty and their understanding of the demands of public service. While respected for their knowledge and intellect, the members should have demonstrated awareness of the limits of their own expertness and expertise in general. I suggest we consider calling upon learned societies to recommend candidates for appointment by the President, subject to advice and consent of the Senate. The members should represent a diversity of disciplines. At a minimum, the project membership should include one or two representatives from the following fields: science, medicine, bioethics, law, and social sciences. It should also include respected members of civil society. Although the latter can hardly be considered representative of the public, their responsibilities would include outreach activities, such as recruiting public participants and promoting citizen education.

It is also important that the enabling legislation ensure that the project operates to uphold the values and norms foundational to its creation. While it is desirable to allow the project members considerable flexibility

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122. To be sure, it is ironic to use the political process to establish an entity that operates independent of political influence. In this age of hyper-partisanship where control of information is a vital strategy, if not a weapon, for political posturing, a proposal to remove the influence of politics may only succeed if there are compromises, such as allowing politicians to participate in deliberations. The discussion of operational considerations is thus idealized.

and discretion, we should specify some conditions.[123] Among those to be included are requiring that the project operate under a presumption of open access to its forums to avoid the appearance of policing or censorship; affirming that the project is barred from discriminating against any individual or group seeking to participate;[124] and charging the project with an affirmative obligation to address the information needs of racial and ethnic minorities, including outreach to individuals and representative organizations for inclusion in its dialogic processes.[125]

As a postscript, I suggest that the national project provide a model for state, or local, replication, adapted to each locality's particular characteristics.[126] Local-based projects could experiment with different architectural arrangements and operating conditions. Such an arrangement will enhance the integrity of the knowledge base both by the attention to the granular detail of different localities and by providing an iterative validating function.

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123.   It is probable that some legislative directives are unnecessary and of limited legal significance, but they may be valuable in defining for the public the purpose and mission of the project.

124.   Excluding a legitimate group from participation should be actionable, even if it is not a legally or constitutionally protected interest, such as a workers' group or an immigrant's organization.

125.   While I am unfamiliar with any mechanism that shares all the characteristics of this proposed project, there are expert-driven projects that aim to provide quality information for public policy decision makers, which may serve as models. For example, the Intergovernmental Panel on Climate Change (IPCC) offers an example of experts modeling using probability estimates of the accuracy of current scientific knowledge. *See, e.g.*, *The Intergovernmental Panel on Climate Change*, IPCC, https://www.ipcc.ch/ [https://perma.cc/3BT5-ETN4]. Another example of experts' contribution to knowledge interpretation is the National Academies of Science, Engineering and Medicine's Societal Experts Action Network (SEAN), which has assembled a group of experts to assist decision makers to evaluate the strengths and weaknesses of data. ADRIAN E. RAFTERY ET AL., NAT'L ACADS. OF SCI., ENG'G & MED., EVALUATING DATA TYPES: A GUIDE FOR DECISION MAKERS USING DATA TO UNDERSTAND THE EXTENT AND SPREAD OF COVID-19, at 1 (2020); *see also* Joan Stephenson, *National Academies Offers Guidance on Evaluating COVID-19 Data*, JAMA NETWORK (June 26, 2020), https://jamanetwork.com/channels/health-forum/fullarticle/27 67839 [https://perma.cc/XVM4-SYLA].

126.   Needless to say, there is no reason that a state cannot proceed to develop its own project in the absence of interest at the federal level.

IV. CONCLUSION: ESCAPING THE INFORMATION CHAOS

> Some people think I am being hysterical, but there are catastrophes ahead. We live in evolutionary competition with microbes—bacteria and viruses. There is no guarantee that we will be the survivors.
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> –Joshua Lederberg, Nobel Laureate molecular biologist[127]

In the COVID-19 pandemic of 2020 the worst-case-scenario disease met the worst-case-scenario American leader under social, political, and technological circumstances that enhanced the chaos. If the coronavirus—with its asymptomatic spread and initial absence of vaccine or cure[128]—was not a sufficient health threat, President Trump and his administration made it worse.

The threat and its response intensified societal inequalities, disparately impacting marginalized minorities. Hyper-partisanship brought us alternative facts and suspicions about leaders' intentions, undermining credibility and trust in the government's messages. At the same time that government was ceding its standing as a source of accurate and reliable information, the modern social media and news environments produced abundant quantities of unmediated information that was contradictory, confusing, and of questionable reliability. There was not only a failure to communicate, there was a communications failure.

The weaknesses exposed by the history of recent threats to the public's health, and exponentially magnified by the conditions under which COVID-19 unfolded, emphasized the need for rethinking the informing process by which the government collects facts and data, interprets and analyzes the information, and constructs and disseminates messages. The unidirectional communications model, in which the government monopolizes disease management messaging, proved inadequate. Partisanship shredded the idea that we could achieve a shared knowledge base to engage in informed debate. The ideal of collective action for the benefit of the community often lost its priority to personal convenience.

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127. Specter, *supra* note 56.
128. Monica Pinna, *Racing for a Cure: Where Are We with COVID-19 Vaccines and Treatments?*, EURONEWS (Apr. 9, 2020), https://www.euronews.com/2020/04/07/covid-19-pandemic-the-race-for-a-vaccine-and-cure-for-the-deadliest-viral-outbreak-in-a-ce [https://perma.cc/R7GU-XAEE].

This Article has answered the question of whether America can do a better job of providing accurate and reliable information to its citizens about the threat of a contagious disease—with a qualified yes. There are several reasons for the tentativeness. Our commitment to a robust First Amendment means that we will need to tolerate more alternative facts, noise, misleading facts, and factual errors rather than endow our leaders with the power to streamline the knowledge process and evaluate the materiality of factual information. Our politicization of facts has undermined the utility and credibility of expert contributions to our knowledge base. Politicians and elites prefer to exert their power to disregard inconvenient information and to proffer alternative facts to promote a personal agenda that may compromise the public's health. Our search for truth and certitude in a health threat, where facts are unstable and conditions are changing in ways that cannot be foreseen, is a fool's errand. Demagogues seek to capitalize on information vacuums created by uncertainty. The messiness of the knowledge base, the chaos of the information process, and the politicization of facts are not going to end. Neither is our political polarization or the unregulated information ecosystem.

Thus, I have argued that we need a new model for the informing process so vital to public understanding of risk and response. I suggested we think ambitiously to undertake a new project to create a public space for information exchange between government and all citizens, as well as between citizens. The project should seek to hear from representatives of the full diversity of the American population—elites and working-class folks; traditionally excluded minorities; experts, real and self-styled; truth-tellers and liars; and the educated and uneducated—who are willing to engage. The project would be facilitated by respected and accomplished experts in a variety of fields. The space will be insulated from political control to the maximum extent possible. It will provide forums for moderated debate, mediated interaction between citizens and experts, and curated reference sources.

The project will be framed by law with its architecture and values articulated by enabling legislation. The project should prioritize the citizens' information needs by helping them navigate the complex and confusing knowledge environment and educating them to become active consumers of information. This will allow for meaningful citizen engagement, which, in turn, should serve to inform government officials in their construction of effective messaging. In the ideal version, the project would foster a consensus building around a knowledge base that will enable informed debate. In reality, the project will perform a vital service if it is trusted to identify untruths and explain to the public why claims of alternative fact

and factually-unsupported opinion do not merit salience in messaging or decision-making.

Accurate and reliable information is the foundation for an effective response to a threat to the public's health. If we are to achieve the capacity to act collectively—for the sake of our survival as individuals and as a democratic nation—we will need to have a shared understanding both of the threat that confronts us and of choices for protecting ourselves and our community. Gone, but not forgotten, are the times when crisis and tragedy brought us together as a people to respond collectively. If that is not to be our future, then we need to think further back and recall the words of President Lincoln, "A house divided against itself cannot stand."[129] If we can at least unite against untruth, might we hold off catastrophe?

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129. Abraham Lincoln, Lincoln's House Divided Speech at the Illinois Republican Convention (June 16, 1858), https://www.ushistory.org/documents/housedivided.htm [https://perma.cc/QLD8-3VY7].