# 1AC

### 1AC – Plan

#### In a democracy, a free press ought to prioritize objectivity over advocacy.

#### Enforcement occurs through a new private fairness doctrine evaluating the objectivity of the methodology used to garner information.

Vandenbergh 20 [Michael P. April 2020. “Social Checks and Balances: A Private Fairness Doctrine.” Vanderbilt Law Review 811. <https://scholarship.law.vanderbilt.edu/cgi/viewcontent.cgi?article=3470&context=vlr>] Justin

Organizational Structure. A new private-sector initiative could draft, publish, administer, enforce, and periodically update the new private fairness doctrine. The initiative could follow the pattern of the most successful private, collective standard-setting organizations, such as the Equator Principles and the MSC. Initial financial support and expertise could be provided by philanthropists, journalism institutes, media experts, advocacy groups, traditional and new media companies, employee organizations, advertisers, investors, and lenders.

The initial organizers could follow the pattern of other private standard-setting bodies by forming a broad stakeholder group to oversee the development and implementation of the new standard. The now-repealed FCC Fairness Doctrine could serve as the jumping-off point for the new private fairness doctrine, with modifications to reflect critiques of the 1987 version plus developments in technology and the media industry. Although the private effort could evaluate the accuracy and completeness of information on an ongoing basis, the task of reviewing information daily or even monthly may be overwhelming. A more feasible approach would be to conduct an evaluation and certification every several years of the processes used by the media companies. In other words, the standard could apply to the internal rules and processes that a media company uses to generate, screen, distribute, update, and correct the information it distributes, along with an assessment of the work product from the prior several-year period.

Private standard setting combined with certification for a period of several years is the approach used by the MSC, which periodically certifies fisheries and the firms that operate within them. The MSC does not attempt to certify the fish caught by the fishery on an ongoing basis.139 Instead, if a firm follows the prescribed methods of fishing within that fishery, it can display a label on the packaging of the fish it catches from that fishery.140 Similarly, a certified media firm could display the logo of the private fairness doctrine organization, providing an easy way for investors, lenders, corporate and retail consumers, advocacy groups, current employees, and potential job applicants to determine which firms they should engage with and which firms they should avoid. The most influential users of the certifications would likely be major advertisers, who could avoid conflicts among their stakeholders about the accuracy and completeness of the information conveyed by the media firms they advertise with by announcing that they will only advertise with media firms that receive a certification or are “A”-rated. The certifications could affect retail consumers if mobile phone applications enable customers to shop from retailers who only advertise with certified media organizations. Potential viewers could also check their phones to evaluate the ratings of the media sources when deciding which to use, although this is less likely to be influential since many media viewers already select media sources based on the worldview or ideology of the media sources. In short, the certification could harness market and social forces and become a clear signal of the media firm’s social license to operate for the designated period.

Content of the Standard. Perhaps the most difficult issue is how to determine the content of the standard. The heterogeneity of the media industry (traditional and new media, etc.) suggests that the organization may need to develop general principles plus more specific standards that apply to particular sectors. For instance, the standards necessary for radio and television may be quite different from the standards necessary for internet firms such as Facebook, Google, and Twitter. In addition, given the experience with fair trade, organic food, and sustainable forestry standards, formation of an initial standard may lead to development of competing standards.141 Research suggests that this may dilute the effect of private standard setting somewhat but is not fatal unless the proliferation of imposter standards ambiguates the signal sent by the most credible standards.142

As discussed at the outset, the goal would not be to achieve balance, a concept that makes little sense for many scientific and factual issues, but rather accuracy and completeness. Accuracy and completeness in all cases is obviously a nearly impossible task to perform, but certification pressure can drive improvements. The standard could include provisions addressing the transparency of the process used to assess information and the sources of information, and nonpartisan or independent reviews of the accuracy and completeness of the information conveyed. Private organizations that give “pinocchios” for falsehoods or otherwise provide public fact-checking functions demonstrate that this type of effort is imperfect but possible.143 The private fairness doctrine would combine the assessment capabilities of these organizations with the market and social enforcement mechanisms used by private certification and standards organizations.

The standard also could follow the lead of the FCC Fairness Doctrine and require some form of equal access to the media by politicians. Access issues do not appear to be at the core of the current information problem, however, and attempting to do too much may undermine the feasibility and legitimacy of the initiative. Thus, although it is tempting to argue that the standard should require equal access, this is not the most important goal.

Updating of the Standard. The development of new technologies and experience with the standard will require updates on a periodic basis.144 The ISEAL standards require organizations to use a transparent, open process to set and update private standards.145 Systems such as the Equator Principles and MSC have used processes that include publishing a draft standard, taking comment, revising the standard, publicly responding to comments, and publishing a revised standard.146 As with these other private standards, the private fairness doctrine could be updated periodically through transparent processes that are open to public participation.

Monitoring and Enforcement. The private fairness doctrine organization could monitor and certify compliance with the standard, or independent auditors could serve this function. The experience of certification and standards organizations in the sustainability field suggests that the staffing requirements could be substantial for these tasks, so the use of third-party auditors may be more feasible.147 If the monitoring activities follow the pattern of monitoring in other private systems, the independence of these private auditors will be essential, and the system cannot allow them to be compromised by funding, competence issues, or selection of auditors whose decisions are dominated by ideology or worldview.148 The existence of fact-checking organizations suggests that norms for auditing information already exist in this area, and over time a private auditing field may arise with experts and professional norms that provide standards of conduct. The professional norms of reporters, editors, and other media professionals may also play a role if they are linked to compliance with the private fairness doctrine.

The FCC used its radio and television licensing authority as leverage for imposing the federal Fairness Doctrine, but that option is obviously not available for a private standard. Experience with many types of private governance systems, though, suggests that nonregulatory influences can be very powerful. A media firm that is certified by the private fairness doctrine organization could receive preferences from advertisers, lenders, shareholders, supply-chain contractors, and retail customers, and those firms that fail to qualify could face sanctions ranging from retail consumer boycotts, to investor divestment or pressure, to naming-and-shaming efforts that target media shareholders and managers. In addition, professional norms could induce the most talented journalists and other media employees to opt to work for certified media firms, leading media firms to seek certification to improve employee recruitment and retention.

Objections. Any intervention of this type poses risks, but the proper standard for judging this initiative is not how it compares to ideal alternatives but how it compares to likely or feasible alternatives.149 In the case of the Fairness Doctrine, there are two likely alternatives: revival of government regulation or continued muddling through without any systematic, accountable oversight. The first option is highly unlikely, and if it occurs, it may be worse than the current situation. If one of the problems with government checks and balances is one-party control of government, government intervention in the media may make matters worse. For instance, in response to anger about the information being provided to viewers via new media, at least one close associate of President Trump threatened to nationalize companies such as Google and Facebook.150

#### That’s the most effective and historically grounded interpretation of objectivity – it isn’t bias free but rather demands a transparent methodology.

Dean and Rosenstiel n.d. [Walter Dean was a CCJ training director and API Executive Director Tom Rosenstiel formerly co-chaired the committee. “The lost meaning of ‘objectivity’.” API. <https://www.americanpressinstitute.org/journalism-essentials/bias-objectivity/lost-meaning-objectivity/>] Justin **\*\*We do not endorse any gendered language**

One of the great confusions about journalism, write Bill Kovach and Tom Rosenstiel in The Elements of Journalism, is the concept of objectivity. When the concept originally evolved, it was not meant to imply that journalists were free of bias. Quite the contrary. The term began to appear as part of journalism after the turn of the 20th century, particularly in the 1920s, out of a growing recognition that journalists were full of bias, often unconsciously. Objectivity called for journalists to develop a consistent method of testing information – a transparent approach to evidence – precisely so that personal and cultural biases would not undermine the accuracy of their work. In the latter part of the 19th century, journalists talked about something called “realism” rather than objectivity. This was the idea that if reporters simply dug out the facts and ordered them together, truth would reveal itself rather naturally. Objectivity called for journalists to develop a consistent method of testing information – a transparent approach to evidence Realism emerged at a time when journalism was separating from political party affiliations and becoming more accurate. It coincided with the invention of what journalists call the inverted pyramid, in which a journalist lines the facts up from the most important to the least important, thinking it helps audiences understand things naturally. At the beginning of the 20th century, however, some journalists began to worry about the naïveté of realism. In part, reporters and editors were becoming more aware of the rise of propaganda and the role of press agents. At a time when Freud was developing his theories of the unconscious and painters like Picasso were experimenting with Cubism, journalists were also developing a greater recognition of human subjectivity. The method is objective, not the journalist. In 1919, Walter Lippmann and Charles Merz, an associate editor for the New York World, wrote an influential and scathing account of how cultural blinders had distorted the New York Times coverage of the Russian Revolution. “In the large, the news about Russia is a case of seeing not what was, but what men wished to see,” they wrote. Lippmann and others began to look for ways for the individual journalist “to remain clear and free of his irrational, his unexamined, his unacknowledged prejudgments in observing, understanding and presenting the news.” Journalism, Lippmann declared, was being practiced by “untrained accidental witnesses.” Good intentions, or what some might call “honest efforts” by journalists, were not enough. Faith in the rugged individualism of the tough reporter, what Lippmann called the “cynicism of the trade,” was also not enough. Nor were some of the new innovations of the times, like bylines, or columnists. The solution, Lippmann argued, was for journalists to acquire more of “the scientific spirit … There is but one kind of unity possible in a world as diverse as ours. It is unity of method, rather than aim; the unity of disciplined experiment.” Lippmann meant by this that journalism should aspire to “a common intellectual method and a common area of valid fact.” To begin, Lippmann thought, the fledgling field of journalist education should be transformed from “trade schools designed to fit men for higher salaries in the existing structure.” Instead, the field should make its cornerstone the study of evidence and verification. Although this was an era of faith in science, Lippmann had few illusions. “It does not matter that the news is not susceptible to mathematical statement. In fact, just because news is complex and slippery, good reporting requires the exercise of the highest scientific virtues.” In the original concept, in other words, the method is objective, not the journalist. The key was in the discipline of the craft, not the aim. This point has some important implications. One is that the impartial voice employed by many news organizations – that familiar, supposedly neutral style of newswriting – is not a fundamental principle of journalism. Rather, it is an often helpful device news organizations use to highlight that they are trying to produce something obtained by objective methods. The second implication is that this neutral voice, without a discipline of verification, creates a veneer covering something hollow. Journalists who select sources to express what is really their own point of view, and then use the neutral voice to make it seem objective, are engaged in a form of deception. This damages the credibility of the craft by making it seem unprincipled, dishonest, and biased. The impartial voice employed by many news organizations – that familiar, supposedly neutral style of newswriting – is not a fundamental principle of journalism. Reporters have gone on to refine the concept Lippmann had in mind, but usually only privately, and in the name of technique or reporting routines rather than journalism’s larger purpose. The notion of an objective method of reporting exists in pieces, handed down by word of mouth from reporter to reporter. Developmental psychologist William Damon at Stanford, for instance, has identified various “strategies” journalists have developed to verify reporting. Damon asked his interviewees where they learned these concepts. Overwhelmingly the answer was: by trial and error and on my own or from a friend. Rarely did journalists report learning them in journalism school or from their editors. Many useful books have been written. IRE (Investigative Reporters and Editors) for instance, has tried to develop a methodology for how to use public records, read documents, and produce Freedom of Information Act requests. By and large, however, these informal strategies have not been pulled together into the widely understood discipline that Lippmann and others imagined. There is nothing approaching standard rules of evidence, as in the law, or an agreed-upon method of observation, as in the conduct of scientific experiments. Nor have older conventions of verification been expanded to match the new forms of journalism. Although journalism may have developed various techniques and conventions for determining facts, it has done less to develop a system for testing the reliability of journalistic interpretation.

### 1AC – Advantage – Misinformation

#### Growing empirical research suggest tailored information flow is the proximate cause of the new era of polarization – leads to dysfunction.

Vandenbergh 20 [Michael P. April 2020. “Social Checks and Balances: A Private Fairness Doctrine.” Vanderbilt Law Review 811. <https://scholarship.law.vanderbilt.edu/cgi/viewcontent.cgi?article=3470&context=vlr>] Justin

Some channelized flow of information has always been a feature of political discourse in the United States—the Founders famously used their own captive newspapers to put their preferred spin on the issues of the day—but a growing body of empirical research suggests that the channelization of information flows has become pervasive in the last several decades.1 Similarly, polarization has always been a feature of political discourse in the United States. The Founders used their captive newspapers and other means for vicious political and personal attacks on opponents, and certainly the polarization leading up to the Civil War was intense.2 But a growing literature again suggests that the current era is at the extreme end. Regardless of whether polarization levels are comparable to past levels, polarization is impairing the ability of government to respond to core problems today:3 studies suggest that polarization correlates with, and perhaps is a substantial cause of, the inability of the federal and state governments to respond to core social problems.4

The social checks and balances that placed some constraints on politicians’ partisan behavior in past eras also seem to be at a low ebb. In the 1950s, Robert Dahl argued that social influences limit the efforts of many politicians and political operatives to abuse common norms of fair play.5 For instance, state legislators may be discouraged from skewing legislative voting procedures while in office because of concerns that doing so will be exposed and will induce their opponents to do so when they are in office. According to Dahl, social checks and balances are a frequently overlooked element of a successful democracy. The point is not that politicians and political operatives never engaged in self-dealing or manipulated norms of fair play—and the use of racedbased voting requirements in the South is a prime example—but in many areas of the country social checks and balances provided meaningful constraints on overreaching by these actors. Numerous commentators have noted that these core norms of democratic fair play have eroded substantially in the last two decades.6

This Essay argues that the channelized flow of information has undermined the enforcement of the social norms that function as social checks and balances. Dahl’s original use of the term social checks and balances referred to the informal norms that constrain the behavior of politicians and political operatives, enforced through the iterative relationships among politicians and the oversight of the general public. The channelized flow of information undermines enforcement of these norms; it can enable a politician’s constituents to avoid exposure to negative information about the behavior of the politician and create justifications for violation of fair-play norms. In this setting, the social checks and balances that might induce a politician to accept rivals as legitimate and exercise self-restraint when in power are weak at best.7

This is not the place to resolve debates among historians, political scientists, and lawyers about the relationships among information channelization, polarization, and social checks and balances. Instead, this Essay assumes that the channelized flow of information through traditional and new media is exacerbating the polarization and dysfunction of the U.S. political process. Drawing on the emerging private governance literature,8 this Essay proposes a new private standards and certification system designed to induce traditional and new media companies to provide more complete and accurate information. In turn, that information may enable more informed democratic discourse, reduce polarization, and buttress social checks and balances. For convenience, I use the term private fairness doctrine to refer to both the new fairness doctrine standard and the organization that would implement the standard.

#### Tailored information flows undermines democratic deliberation and forms a growing media bubble – spreads polarization and leads to confirmation-bias.

Vandenbergh 20 [Michael P. April 2020. “Social Checks and Balances: A Private Fairness Doctrine.” Vanderbilt Law Review 811. <https://scholarship.law.vanderbilt.edu/cgi/viewcontent.cgi?article=3470&context=vlr>] Justin

Channelized Information Flow. The first development arises from the shifting structure and motivations of traditional and new media. Adequate information is essential for democratic participation and deliberation, but there is a growing recognition that the flow of politically relevant information in the United States is flawed.70 In a world in which government checks and balances are the principal focus, government censorship of the media is a core concern. Of course, the Framers’ response was the First Amendment, which is designed to encourage uninhibited and robust debate by imposing constraints on the ability of governments, not private organizations, to restrict free speech.71 The assumption is that lack of government constraints on speech will yield an informed, participatory public citizenry and adequate information for politicians and other policymakers.72

The assumption underlying this approach to free speech is that multiple tongues will reach multiple ears.73 But what happens if they do not? What happens if those ears can be closed to all tongues other than those with prescreened messages? In recent years, the flow of information has been distorted in ways that undermine opportunities for informed democratic discourse across deeply held worldviews. In 1980, three major networks dominated television, and a small number of national broadcast networks dominated radio as well. (Newspaper content was less concentrated, but newspapers had widespread readership across the political spectrum in many communities.) In short, television and radio stations were owned by many different parties, but a small group of broadcasting firms dominated the field. The concentration among broadcasters raised concerns about private censorship.74 To succeed, though, these broadcast networks needed to appeal to widespread audiences. In turn, this motivated broadcasters to convey information that not only might be homogenized or dumbed down, but also that could withstand scrutiny from and attract a broad audience. In other words, broadcast firms had incentives to integrate the views of and retain the credibility of many people across the political spectrum.75

This had all changed by the late 1990s, when Fox News and MSNBC were commanding a substantial share of the national audience. The growth of cable television, satellite radio, and other options enabled the traditional media firms to generate a large number of information pathways or channels. The new channels often targeted self-selected subgroups and only reached large audiences in the aggregate. In contrast, between 1980 and 2005, the share of the television market reached by the nightly news of the three major networks that ostensibly attempted to reach a general audience fell from 42.3 million to 18.9 million.76 The result is that many media firms faced little incentive to generate or provide content that could survive scrutiny from or appeal to a wider audience.77

By 2010, the development of the internet and social media had reinforced the tendency toward tailored information flows. The growth of new media giants reduced the number of firms that provide pathways for information (e.g., Facebook, Google, and Twitter),78 leading to censorship concerns.79 Although the concentration of these firms poses risks of private censorship, an equal or greater concern is that these firms enable users to avoid exposure to opinions and assertions of fact that are inconsistent with the users’ worldview. Participants can speak all they want but also can insulate themselves from inconvenient views. This undermines debate, deliberation, and compromise. Facebook, Google, Twitter, and other firms that serve as information conduits to general audiences can affect this flow of information and are thus subject to pressure from all sides. Not surprisingly, these firms have struggled to develop and implement corporate content standards and implementing systems.80

In short, although information sources have become more numerous, they also have become more tailored to specific audiences. Information is generated and flows not to general audiences, but instead is generated to appeal to a specific group and is conveyed to that group, often without easy access by others outside the group.81 As new forms of communication have developed, the number of avenues through which media companies can reach audiences has exploded, leading to a market in which media organizations with an explicit ideological agenda have substantially increased their share of the audience. Individuals can now insulate themselves from facts and opinions that are inconsistent with their worldview, preselecting the information they want to be exposed to, and perhaps more importantly, the information they want to ignore.82 This channelization of information flow also undermines the need for reporters, editors, and other content providers to account for reactions and fact checking from a broad audience.

The channelization of information works in tandem with several aspects of human psychology to facilitate political polarization.83 For instance, individuals engage in confirmation bias and motivated reasoning, picking those sources of information and factual assertions that fit with their worldview and tossing out those that do not.84 These processes even affect how individuals experience the surroundings of their daily lives—conservatives in rural northern New England believe that recent winters have been colder than they have been, making it easier to dismiss concerns about climate change.85 In theory, interacting with others who have different viewpoints could ameliorate this problem, but increasingly in the United States individuals only associate—both physically and electronically—with similar others.86 In turn, associating with similar others reinforces and increases extreme views, and research shows that people engage in belief superiority: the more extreme their views, the more they think their views are superior to others.87

#### Media trust is low globally and organizations have little incentive to break the media bubble – their focus is on retaining audiences leading to echo-chambers and misinformation.

Edmonds 22 [Rick is a Media Analyst and Leader of News Transformation. “Trust in media is low worldwide. Are media outlets reaching out to the wrong people?” Poynter.org. 1/5/22. <https://www.poynter.org/ethics-trust/2022/a-trust-issue-are-media-outlets-reaching-out-broadly-enough/>] Justin

It has become an article of faith among editors and reporters that they need to come up with strategic efforts to build reader trust. However, a report late last year from the Reuters Institute for the Study of Journalism at the University of Oxford offers a sobering caution: Few efforts to build reader trust have reached beyond existing readers and likely subscribers to the truly skeptical. I asked Rasmus Kleis Nielsen, director of the institute, whether this should be read as pessimism about the entire trust effort of the last several years. “I would say realism,” he said. “Even if the truth is not entirely welcome … we need to be clear-eyed about the incentives (at play).” Right now, those incentives turn out to be foremost retaining subscribers or broadcast audiences, often paired with adding a new paid digital base, according to the report. That means “few individual news organizations have clear incentives for investing in building trust with indifferent, skeptical, or outright hostile parts of the public.”

In addition, few of the organizations with trust-building initiatives “can point to systematic efforts for tracking their effectiveness.” The conclusions were based on focus group conversations with journalists from four countries — the U.S., U.K., Brazil and India. (An earlier Reuters survey report last summer found that trust levels are low worldwide and that the United States ranked last among 46 countries surveyed). On the one hand, Nielsen said, the principal measure of trust is the attitude of lay users alone. But he and co-author Benjamin Toff thought it was worth digging deeper into how the trust challenge is playing out within news organizations. Given finite resources, it may make sense to individual organizations to focus engagement efforts narrowly on best prospects, the Reuters report authors write. The trouble is “for journalism more generally,” they continue: If news outlets each focus on building trust with those already most likely to trust them — and many already compete for attention, trust, and reader revenue from the same, often already relatively trusting (and privileged) parts of the public — the people most indifferent to or distrusting towards news, who are most difficult to reach and most resistant to such appeals, and frankly often less commercially attractive, are at risk of being left behind or further alienated. Editors in the discussions indicated awareness of the problem and offered some experimental solutions their organizations are trying. Paul Volpe, who became editor of a new New York Times trust team in September, said the Times shares the Reuters perspective that there are groups of “hardcore loyalists who already believe you” and the “unconvertible who never will.” The Times is focusing on defining a third, middle group who might be those who do not yet know what to think: “Maybe it’s a younger audience, maybe it’s someone who’s not exposed as much to media.” One avenue to defining that group, Volpe continued, may be social media comments, many of them based just on the incomplete picture a headline paints rather than an assessment of the whole story. Such posts may point the way to subsequent stories needed to address commenters’ news concerns. Suki Dardarian, senior managing editor and vice president of The Star Tribune in Minneapolis, offered a similar perspective from a regional newspaper: “If they’re older, disinterested people, how hard do I have to work to get those people, when I have a bunch of younger people coming in who might be more interested? Like, I’m not saying I’m writing them off, but you know, if I have to make some choices …” She also spoke of Star Tribune initiatives considered successes in trust-building. Internal metrics suggested reader interest in uplifting stories so The Star Tribune has markedly upped its storytelling about faith, religion and spirituality. Similarly an annual feature about lifestyle challenges, like cutting back on sugar or improving sleep, prompted the creation of a community format on those topics which has attracted thousands of comments.

For the toughest groups to reach, the report concludes that there are no easy answers, especially in a climate of polarization and media-bashing politicians. But it argues, “Much of the public sees journalism and news media as powerful institutions … and are unlikely to accept that the root of the problem lies elsewhere, or that they have few options at their disposal. Thus, giving up on building trust may look like a lack of real interest in the issue.” I asked Nielsen for further thoughts on what outlets might do. He offered three. “Familiarity does not breed contempt, and that’s quite encouraging,” he said. Outlets should not be reticent to “show the value of their work.” Nielsen also thinks that outlets “should be as clear as possible about the mission of the organization,” particularly in an era where large segments of the public suspect hidden agendas. “You need to have ideals. Say it and then show it.” Nielsen has noticed (as I have) how many of the best digital startups are explicit about their mission and editorial standards. Many newspapers, by contrast, “may be 100 years old, but it is easy to forget that, especially among a community of younger readers, what you stand for may not be known,” he said. Third, Nielsen suggests — as the report does — that outlets need to spend some time facing facts about what they think about alternate trust strategies. “No one can do everything,” Nielsen said, but it has been easy to back into a narrow approach without much reflection. He offered, as examples of creative approaches, a Canadian Broadcast Corporation initiative to embed journalists in pop-up newsrooms in remote Indigenous communities or the Los Angeles Times’ “reckoning with its own history” of inadequately covering the many ethnic and racial groups it intends to serve. Looking forward, Nielsen suggested that outlets could borrow a page from the playbook of successful politicians. “You do one set of things to energize the base and another to reach the undecideds.” His agenda for 2022 includes more academic work to understand the everyday impact of platforms and devising online experiments to see what’s working among what’s being tried. I also asked for a reaction to the report from Joy Mayer, founder and director of Trusting News (and a Poynter adjunct faculty member). “It gets at some absolutely crucial tensions,” she said. “There are choices to be made about who you want to serve.” Even if the goal ends up being just to seek a broader audience, she said, “you are going to encounter people who are hostile … and there are others who are misinformed or have reasons to be mistrustful.” Her 6-year-old project, co-sponsored by the Reynolds Institute at the University of Missouri and the American Press Institute, has embarked on a series of experiments under the banner of “the road to pluralism.” It has been A-B testing, for instance — as the Reuters report recommends — whether explicit links to a mission statement make a given piece of content more credible. The Reuters report notes that hostile assaults from some politicians on “the media,” so prevalent here, are a huge issue also for the Brazilian and Indian editors who participated in the study. The level of hostility toward journalists and their organizations, together with echo chambers for animosity and misinformation, have induced a grim mood among many journalists, the report found. It doesn’t suggest any easy solution, but I would concur with the Reuters authors that this is no time to give up on identifying persuadable audience segments and a sustained effort to gain their trust. And for realism, as Nielsen suggested, about how far along outlets actually are.

#### That’s an independent existential threat that triggers a laundry list of impacts.

Walt 19 [Stephen M. Walt, a columnist at Foreign Policy and the Robert and Renée Belfer professor of international relations at Harvard University. 3/11/19. “America’s Polarization Is a Foreign Policy Problem, Too.” Foreign Policy. <https://foreignpolicy.com/2019/03/11/americas-polarization-is-a-foreign-policy-problem-too/>] Justin

Unfortunately, one negative impact of excessive polarization is a decreased ability to do the things that can keep the country on top for a long time. If polarization prevents the federal government from taking effective action on climate change, decaying infrastructure, the opioid epidemic, primary education, financial regulation, the deficit, or any number of other problems, America’s long-term position of power could erode and leave the country less able to handle future foreign-policy challenges.

Morever, as Schultz notes, polarization leaves the country more vulnerable to outside interference, as Russia’s efforts to interfere in the 2016 election illustrate. We still don’t know exactly what Moscow did and what effects it ultimately had, but it is clear that at a minimum, Russia sought to exploit and exacerbate internal divisions that already existed. And this sort of thing can rapidly become self-reinforcing, as opposing sides leap to accuse each other not just of bad judgment but of being actively disloyal. This sort of thing is not unprecedented in U.S. political history: In the early days of the republic, Hamiltonians accused Thomas Jefferson of being overly sympathetic to revolutionary France, while Jeffersonians believed Hamilton to be a closet monarchist with a poorly disguised sympathy for Great Britain. It did not take much for either group to see the other as more than misguided.

Schultz also points out that polarization threatens a nation’s ability to reach agreements with other countries. It is no accident that presidents have come to rely more and more on executive agreements rather than formal, ratified treaties: It has become increasingly difficult to get the latter through a divided Congress. Of equal concern is the possibility that other states will be wary of making mutually beneficial agreements with the United States, simply because they have no way to be sure whether an agreement reached this year will survive the next election. People who think U.S. interests are best served by avoiding international agreements and maximizing the country’s freedom of action (e.g., John Bolton) might welcome such a situation, but this view is dangerously shortsighted. The United States has benefited greatly from a host of past agreements of various types, and it makes no sense to encourage other states to have less and less confidence in the value of U.S. pledges. Nobody expects the United States to act contrary to its interests, but how can it expect other countries to do something it wants in exchange for something they want, if they have no way of knowing whether it will deliver?

Indeed, the problem of inconstancy may be even worse than Schultz suggests. Once foreign policy begins to oscillate between two increasingly divided factions, each of the groups has an incentive to pursue its most ambitious, controversial, or extreme projects whenever it happens to be in a position of power. Not only does the pendulum oscillate with greater frequency, the swings themselves become more extreme.

Another cost of polarization is the erosion of America’s broader image for competence and good sense. The more bitter, divided, gridlocked, venal, and downright stupid American politics become, the less appealing the American system of government is to outside observers. When that happens, the country’s moral voice—already compromised by foreign-policy excesses—gets reduced to a whisper. I mean, seriously: What sensible foreign country would listen to an American telling it how to organize a government, write a constitution, root out political corruption, or hold officials accountable, when the U.S. system itself seems increasingly broken and the political ecosystem is populated by unprincipled popinjays, corrupt con men, habitual liars, and senior officials whose chief skill is failing upward? When a nation’s politics are sufficiently polarized, the worst people can still find safe sinecures within their tribe. Yeats got it exactly right: “The best lack all conviction, / While the worst are full of passionate intensity.”

Polarization also threatens to defeat the growing effort by Congress to wrest back some of the powers over foreign policy enshrined in the Constitution (such as the capacity to declare war), powers that presidents have gradually usurped over many decades. On balance, U.S. foreign policy would be better served if Congress provided a forum for genuine debate—in part to better inform the public—and if it performed effective oversight over many aspects of the country’s foreign policy. But a Congress divided into warring factions, that uses its powers not to debate, oversee, and refine U.S. policy, but rather to grandstand, distract, and advance a purely partisan agenda, is hardly an institution that is likely to have a positive impact on U.S. foreign policy.

Lastly, as I noted in my recent book, deep polarization also makes it harder for the country to learn the right lessons from the past. Learning from past mistakes is essential but also difficult, because any historical episode yields many lessons and reasonable people can disagree about which lessons to draw. But when politics becomes tribal and there is little overlap between rival camps, each will simply believe its own self-serving narrative and will draw very different lessons from the past. One sees this already in the case of the Iraq War, which about as clear an example of a foreign-policy debacle as one could name. But where Democrats blame the administration of former President George W. Bush for leading the country to war under false pretenses and then bungling the occupation, Republicans now insist the United States was on the path to victory after the 2007 “surge” and blame former President Barack Obama for pulling the country out too early. Once politics becomes sufficiently polarized, we won’t agree on lessons or even on basic facts.

#### Advocacy media fuels fake news – conspiracy theories are accelerating exacerbated by the digital age. Only a return back to objectivity resolves these issues.

Gerbina 22 [T.V. Gerbina \*All-Russian Institute for Scientific and Technical Information, Russian Academy of Sciences, Moscow, Russia. “Science Disinformation: On the Problem of Fake News.” Published 2/25/22. Scientific and Technical Information Processing. <https://link.springer.com/article/10.3103/S0147688221040092>] Justin

INTRODUCTION

According to the Oxford English Dictionary, the 2016 word of the year was post-truth. According to the definition of British linguists, this concept means circumstances in which objective facts have less influence on the formation of public opinion than emotions or personal beliefs [1]. This phenomenon arose due to the influence of the media: by manipulating society, they create a different reality. One of the main reasons for the post-truth era is the abundance of fake news that the audience is unable to recognize. The growing influence of fake news is fueled by a loss of trust in the authorities, as well as in the media and the journalistic profession in general. Fake news fills the vacuum for people or communities offering instant solutions to various problems. In their discourse, knowledge, science, facts, evidence, and rationality are swept aside as the sophistry of the elite. With the development of Internet technologies, anyone can become an author of fake news and begin to spread it instantly; any attempt to refute these false facts is useless. Emotions take over rationalism, i.e., people believe what they want to believe. All this fully applies to science news. Development of the Internet provides an excellent opportunity to promote scientific knowledge, as well as to educate and disseminate research results. If it is credible, science news can be an influential vehicle for drawing public attention to important issues of our time; otherwise, such news undermines the credibility of scientific information and science in general. The scientific news problem has been aggravated by the COVID-19 pandemic and the information wave that followed. Disinformation about the new disease spread faster than the pandemic, resulting in the emergence of the phenomenon of infodemic, i.e., an overabundance of both reliable and inaccurate information, which makes it difficult for people to identify reliable sources. Infodemic has exacerbated the problem of fake science news, since almost any message about COVID-19 relates to science, in particular, to medicine and biology.

FALSE NEWS, DISINFORMATION, AND MISINFORMATION

The term fake news became widely known during the American presidential elections and the 2016 Brexit referendum. According to The Guardian, Collins Dictionary called fake news the word of 2017, citing, as one reason, a 365% increase in its use [2]. Due to the great attention from academic and political circles, the meaning of this term remains controversial and its use in everyday language is extremely heterogeneous. Despite the fact that, due to the modern media environment, the mass use of the term fake news began relatively recently, this phenomenon has been known since ancient times. J.M. Burkhardt divides the history of fake news into four eras: pre-printing press era, post-printing press era, mass media era and internet era [3]. In the first era, control over information gave some people power over others and contributed to the creation of most hierarchical cultures. Those who controlled knowledge, information, and the means of its dissemination became leaders of privileged groups. As an example, according to the data of Burkhardt, in the 6th century A.D. Procopius of Caesarea used the dissemination of false information to discredit the Emperor Justinian. The invention of the printing press and the simultaneous spread of literacy made the wider dissemination of information possible. Here, the author notes that J. Swift, in his essay, The Art of Political Lies, published in 1710, complained of political fake news. He wrote about the harm that a lie can do, whether attributed to a specific author or an anonymous author. The American writer E.A. Poe wrote a fake newspaper article in 1844 claiming that an aeronaut had crossed the Atlantic in a hot air balloon in just 3 days. Lack of attention to detail and the scientific credibility of the facts made many people believe him until journalists refuted the fake. The article was withdrawn 4 days after publication. Poe is credited with at least six stories that turned out to be fake news. In the era of mass media, after the invention of radio and television, fake news gained a new speed of distribution. As an example, in 1938, radio broadcasting of the American book War of the Worlds by H.G. Wells occurred. A realistic radio broadcast with the inclusion of supposedly real news made people believe the story of the Martian invasion, which caused panic among people who had not read this book [4]. The age of the Internet has accelerated the spread and availability of fake news by many times. As an example, Burkhardt cites the “Pizzagate” conspiracy and the Pope’s supposed support of D. Trump for the post of President of the United States [3]. Due to its relative novelty and the large amount of attention from academic and political circles, the meaning of the term fake news remains controversial, and its use in everyday language is highly heterogeneous. According to C.A. Watson, this term was first introduced in appeal by M. Webster at the end of the 19th century [5]. S.N. Ilchenko defines fake news as a “journalistic message published in the media containing unreliable and unverified information that does not correspond to real facts and empirical reality” [6]. According to A.P. Sukhodolov and A.M. Bychkova, “fake news” is a message that is stylistically created as real news, but is false in whole or in part” [7]. J. Zhang, B. Dong, and P.S. Yu present them as disinformation or a hoax, spread both through traditional print media and through social networks [8]. J.P. Baptista and A. Gradim provide a broader definition of this term: a type of online disinformation with a wholly or partly false content, intentionally created with the aim of deceiving and manipulating a certain audience using a format that imitates news or credible reporting, with an opportunistic structure (headline, image, or content), which may or may not be related to real events. Fake news is created to grab the attention of readers, convince them to believe a lie, receive more clicks and reposts, and therefore, have a higher ad revenue and ideological benefit [9]. D.M.J. Lazer understands it as fabricated information that imitates the information content of the media in form, but not in organizational process or intentions. In his opinion, fake news sources lack editorial norms and processes to ensure the accuracy and reliability of information [10]. The term fake news is closely related to two concepts that characterize violations in the information field: disinformation and misinformation. Disinformation is understood as the process of manipulating information (misleading someone by providing incomplete information, distorting the context, and distorting part of the information) [11], while misinformation is dissemination of false, erroneous information, but without the author realizing that this information does not correspond to reality [12]. Examples include publications with unverified facts and inaccurate translations of articles from foreign languages. The main feature of misinformation is that mistakes were not deliberately made by the author. Thus, fake news can be produced both by traditional print media and various Internet resources and have the properties of disinformation and misinformation, i.e., such publications may be malicious or simply erroneous.

FALSE NEWS ON SOCIAL MEDIA

According to the company Hootsuite (an annual survey of 11 189 marketers, interviews with industry experts and exhaustive research), almost 60% of the world’s population is digital. In 2020, the average user spent almost 7 h a day on the Internet, which is 9% more than in the previous year. This means that a person spends about the same amount of time using the Internet as sleeping, and spends approximately 40% of their waking hours using devices connected to the Internet (Fig. 1). In Russia in 2020, there were 124 million Internet users (85% of the total population of the Russian Federation), the annual growth of users was +5.1% (+6 million people), and the average time spent on the Internet was 7 h 52 min [13]. Fig. 1. figure 1 An overview of the global use of the Internet (compiled from [13]). Full size image Most often, people go to the Internet and use social networks (95.8%), instant messengers (95.5%), and search services (83.4%) to make purchases (58.2%), to determine their location and use maps (56.2%), e‑mail (50.6%), listen to music (46.4%), watch news (41.8%) and weather (40.6%), and for entertainment (40%) [14], i.e., using social media to keep abreast of news and current events is a common reason for logging in around the world [15]. By the beginning of 2021, almost half a billion new users had registered on social networks. On average, over 1.3 million new accounts were created every day during 2020, which is approximately 15.5 new users per second. An ordinary user of social networks now spends 2 h and 25 min every day on these platforms [13] (Fig. 2). Fig. 2. figure 2 The use of social networks and messengers (compiled from [13]). Full size image The most popular social networks in the world are Facebook, Youtube, and Instagram (Fig. 3); in Russia they are YouTube, VK, and Instagram (Fig. 4). Fig. 3. figure 3 The world’s most popular social networks and messengers (million people) [13]. Full size image Fig. 4. figure 4 The most used social networks and messengers in the Russian Federation (million people) [13]. Full size image The German company Statista, in its report dated June 16, 2021, notes that fake news is a complex and widespread problem in the news industry, which has grown into a serious global problem. Statista highlights the leading role of social networks in spreading fake news: the study showed that more than 50% of Internet users in 24 countries use social networks to read news information, although they have been considered the least reliable source of news since 2016 [16]. At the same time, social media is being used for validation of online news [17]. While this is not the most effective way to validate a news article, many users look at how many other people have shared or liked the news on social media to assess the reliability of content. Younger social media users are at greater risk of being exposed to fake news than older generations, because they use social media more often. This problem has worsened by the coronavirus pandemic. A survey conducted in spring 2020 showed that in Great Britain 60% of young people aged 16–24 used social media to get information about the coronavirus and 59% found fake news on this topic [18]. In France, almost 30% of the people between the ages of 15 and 18 used social media as their primary source of information about the coronavirus. A separate global survey found that while most of the generation Z news consumers and millennials ignored fake COVID-19 news, some preferred to share such content [19]. According to the working group of the Public Chamber of the Russian Federation on countering the dissemination of inaccurate information, public control, and network security, the level of fake news increased by 50% in Russia in the first half of 2021. According to the group, fake news is recorded in 10 categories; the first of these is elections. As well, fake news was recorded on the topic of vaccination against COVID-19 (10 000 cases of fake news) and coronavirus (8000). In addition, distorted information on the Internet concerns the following topics: forest fires, mining of secondary schools (approximately 2500 messages), illegal protest actions (less than 2000), political fakes, war fakes (publications about military operations near Russian borders) and financial fakes (more than 2000 messages) [20]. A poll conducted by the Public Opinion Foundation in February 2021 showed that 56% of Russians read news on the Internet. Most often, users search for news through aggregators (39%), followed by social networks (19%). To the question: “On what forums, blogs, social networking sites, in which messengers do you usually find news, information messages?,” 13% answered VK, 10% said Instagram, and 8% each gave Whatsapp, Viber, and Telegram; 5% of Russians learn news from Odnoklassniki, 4% from Facebook, and 2% from Twitter [21]. Thus, social networks have become a powerful tool through which the minds of citizens are manipulated; these networks have significant propaganda potential and can also distort reality on a global scale.

FAKE SCIENCE NEWS

In our time, science is more relevant than ever for society, given such important problems of our time as climate change, the energy supply, and the global spread of viral infections. Science news is a key resource for helping the public understand new scientific knowledge and the latest technological advances. The media, including social media, mediate relationships between people and technological development and help them to understand the new world by playing the role of a science conduit. According to the reach of the audience, the main channels for the receipt of science news can be divided into sources for professionals (scientists) and sources for society as a whole (Fig. 5). Accordingly, professional sources of information (mostly scientific articles) are the main channels for obtaining information for popular scientific publications and news agencies. It is difficult to judge the quality of scientific articles, but an article in a scientific journal is most likely to be peer reviewed, which makes it a more reliable source of news. However, this is compounded by the fact that the quality of scientific journals can vary significantly and some journals publish research without peer review. Fig. 5. figure 5 Science news sources. Full size image Ideally, scientific information should have the following properties: objectivity, reliability, completeness, accuracy, relevance, and usefulness (value). However, in practice, Nature estimated that about one-third of all researchers are involved in plagiarism and data falsification. Of the 7000 scientists surveyed by the journal, 33% admitted to violating scientific ethics [22]. The driving forces of fake science are embedded in the existing scientific publishing system, which was designed to disseminate reliable knowledge, in which a combination of scientific advances and financial rewards for scientists and publishers stimulates the creation and promotion of fake results. False scientific data lead to fake science news. Science (especially the social sciences) has become highly politicized. A striking example of this is the not entirely ethical experiment conducted in 2018 by three American scientists. For an entire year, they deliberately wrote completely meaningless and frankly absurd scientific articles dedicated to various manifestations of the fight against social injustice: studies of feminism, the culture of masculinity, issues of racial identification and sexual orientation, positive body image, etc., to prove that ideology in this area has long won out over common sense. In total, 20 papers were written, of which 7 received reviews from leading scientists and were accepted for publication in journals specializing in cultural studies and identity studies. One of the most absurd works even received a special award. After the outbreak of the scandal, the authors of these works wrote an open letter to the scientific community with an appeal to begin a thorough review of these areas of study (gender studies, critical race theory, postcolonial theory, and other areas of the humanities and social sciences, especially sociology and anthropology) in order to separate science-intensive disciplines and scientists from those who create constructivist sophistry [23]. Science journalism is in poor condition, according to the American Council on Science and Health, one of the compilers of the 2017 ranking of US news sources for science news, and they emphasize that science journalism is not only subject to the biases inherent in conventional journalism, but also especially vulnerable to outrageous sensations [24]. The news aggregator RealClearScience, which also worked on this ranking, notes that much of the science reporting is a morass of ideologically motivated junk science, bloated research, or technical jargon that almost no one can understand [25]. The most popular science fake news over the years has been vaccine manufacturer conspiracy theories and denial of man-made climate destruction. Vaccines are considered one of the most important inventions ever made for the benefit of humanity. The World Health Organization estimates that vaccines save 2–3 million lives every year. However, a fabricated scientific article that claimed that the measles, mumps, and rubella vaccine causes autism [26] led to widespread dissemination of this misinformation, especially through social media. This, in turn, led not only to record levels of measles incidence in Europe in 2018, but also expanded the range of so-called anti-vaxxers [27]. The denial of anthropogenic climate change, which is dismissed as fake science without any evidence, has led to universal acceptance of the international agreement on climate change being lost, and its impact on global warming is likely to be disastrous around the world [28]. One of the most widely replicated fakes is the so-called flat Earth theory. Tens of thousands of videos, social media accounts, podcasts, and websites are devoted to this absurd theory [29, 30]. Today, when space probes are exploring the planets of the solar system, such “scientific” information can only cause confusion.

The COVID-19 pandemic has exacerbated the problem of fake science news, both for the scientific world and for the entire society. Misinformation about the new disease spread faster than the pandemic, as a result of which the WHO declared it an infodemic, which means an overabundance of reliable and inaccurate information, which makes it difficult for people to identify reliable sources, i.e., the information itself began to spread virally. Infodemic touched not only science news disseminated through social networks, but also scientific articles. According to the journal Nature, in 2020, approximately 100 000 scientific articles were published in the world on the subject of COVID-19, of which 30 000 were preprints (i.e., articles without going through the peer review procedure) [31]. According to the portal Retraction Watch, to date, approximately 200 articles have been withdrawn from scientific journals [32]. These are relatively small numbers, but until these articles were withdrawn and were available on the websites of journals in electronic form, the data from them could obtain into news feeds, and the articles themselves could become sources of fake science news. A study by the London School of Economics suggests that the COVID-19 crisis could have a negative impact on the perception of scientists by ordinary people, especially those without education [33]. Using past pandemics as a guide, they concluded that the COVID-19 crisis would diminish the credibility of individual scientists, impair perceptions of their honesty, and weaken the belief that their work is beneficial to society. It is especially dangerous when pseudoscientific information comes from real scientists or doctors. In particular, Doctor of Biological Sciences Irina Ermakova in an interview posted on Youtube, stated that the cause of the COVID-19 disease is a certain mysterious bacterium Cynthia [34]. If a person with knowledge in biology can suspect pseudoscientific news, then a common man in the street may well believe a biologist with a scientific degree. As well, the Deputy Chief Physician of Australia, Professor P. Kelly pointed out that there is no need to wear protective masks; this negates the abundant scientific evidence of the benefits of masks in reducing infection with COVID-19 [35]. In general, the coronavirus pandemic has spawned a host of conspiracy theories and fake science news, which can be roughly divided into the following categories:Footnote1 • the origin of the SARS-CoV-2 virus (bat soup, a laboratory leak, creation of the virus by Bill Gates or the US Government); • racial theory (for example, only Asians are infected with the virus); • the spread of coronavirus (5G networks); • treatment and prevention of coronavirus (alcohol consumption; rinsing with chlorine dioxide; bleach injections; swimming in a pool with chlorinated water; eating garlic, ginger, sesame oil, bananas; using cocaine; washing hands and rubbing surfaces with baby urine; warming up the nose with a hairdryer; taking baths with granite); • politics (governments hiding the real deaths from coronavirus and falsifying vaccinations; the increase in the incidence in Europe is caused by illegal migrants); • epidemiology and statistics (overestimated/ underestimated statistics on morbidity and mortality); • vaccines and vaccinations (death after vaccination; mass vaccination for the sake of obtaining superprofits by corporations; the contents of heavy metals in the vaccine). Most readers probably found this news funny, but there are examples where such messages caused serious harm to health and even led to death. As an example, by the end of March 2020, over 2100 Iranians had been poisoned by oral methanol. Iran, as an Islamic country, has strict restrictions on alcohol consumption, but in this case patients said that, according to information on social networks, SARS-CoV-2 infection can be prevented with alcohol. As a result, almost 900 patients poisoned with illegal alcohol were admitted to the intensive care unit and 296 of them died [36]. The colossal role in the dissemination of pseudoscientific information of the so-called influencers (influential persons) with tens and even hundreds of millions of subscribers on social networks should be noted. As an example, the famous American popularizer of science Bill Nye has 3 million subscribers on the social network Instagram, while the footballer Ronaldo has 365 million. If a hypothetical football player publishes pseudo-scientific information, this can seriously affect the views of many people from around the world. This is confirmed by a recent study by the Center for Countering Digital Hate where it was revealed that just 12 people are responsible for many of the misleading claims and outright lies about COVID-19 vaccines that are circulating in Facebook, Instagram, and Twitter, i.e., The Dozen Disinformers, reaching an audience of 59 million people, produce 65% of the pseudoscientific anti-vaccination information on social media [37]. After the publication of this report, the management of Facebook stated that the accounts of these 12 people have been blocked, and 22 accounts were restricted, for example, they are prohibited from recommending anything to other users, the reach of their messages has been reduced, and they are prohibited from promoting themselves through paid advertising [38]. In particular, one Facebook account blocked the anti-vaccination activist Robert F. Kennedy, Jr., one of the Dozen Disinformers. Before the pandemic, he actively promoted the idea of linking vaccines to autism. During the pandemic, he shared unsubstantiated conspiracy theories linking 5G cellular networks with coronavirus and without evidence stated that the death of the baseball player Hank Aaron was part of a wave of suspicious vaccine-related deaths. All of the above, on the one hand, emphasizes the problem of controlling scientific publications, and on the other, the problem of controlling the media and social networks. Over the past year, there have been some changes in social media policy, in particular, the Facebook and Twitter social media companies removed millions of fake news stories related to COVID-19. Both companies are taking steps to attract reliable information about the disease and vaccinations. Twitter deleted more than 22 400 tweets and challenged 11.7 million accounts worldwide that contain problematic content. Facebook removed 2 million pieces of content from Facebook and Instagram [39, 40]. However, fake news spreads faster than social media workers react to it. As an example, in the first quarter of 2021, the most viewed material on the social network Facebook was the Chicago Tribune article titled “A ‘healthy’ doctor died two weeks after getting a COVID-19 vaccine; CDC is investigating why” [41]. The message was soon blocked, but more than 54 million people read and disseminated it. In Russia in 2019 and 2021 amendments to the Law On Information, Information Technologies, and Information ProtectionFootnote2 were accepted and changes to the Code of Administrative OffensesFootnote3 were aimed at countering fake news. According to this law, by early 2021 Roskomnadzor deleted or blocked 3516 Internet pages with fake information about the coronavirus [42]. From April 1, 2021, Russia introduced criminal liability for the dissemination of knowingly false information about the coronavirus, which led to grave consequences. Such measures are carried out by the governments of many countries of the world. This gives hope that the infodemic can be taken under control and, possibly, lives can be saved. CONCLUSIONS With the development of science and technology, there has been a clear increase in interest in science and scientific research. On the one hand, society is aware of the dependence of progress on the development of scientific research; on the other hand, it perceives science as something that carries potential threats. The digital revolution contributed to the replacement of vertical models of dialogue between science and society with horizontal models [43]. An important subject of the dialogue between society and science is the diversity of scientific knowledge in the information environment. The transition of scientific knowledge into knowledge for all is ensured by the popularization of science, which gives knowledge a form accessible to the general public.

Fake science news is a socio-cultural phenomenon of imitation of reliable scientific knowledge. Fake news creators use complex terms to promote ideas that are not recognized by the scientific community, which can seriously affect the worldview of society. In the information environment, reliable and fake science news compete with each other and the user’s real choice is far from always obvious. The user chooses not between science and pseudoscience, but between understandable science and complex science. In addition, resistance to new knowledge may prevail due to the cognitive dissonance that occurs when new facts contradict their own ideas. The massive dissemination of fake science news can be seen as a crisis of the political system and science journalism and as a new propaganda tool, where fake scientific information is deliberately disseminated on social networks in a viral manner with the aim of quickly impacting the audience. There are many motives for creating fake science news, the most obvious being financial gain and ideological beliefs. Preventing the deliberate creation of false information is very difficult, and, in democratic societies that operate on the principles of free speech and freedom of expression, it is even more difficult. Thus, instead of looking for ways to prevent the creation of misinformation, the primary focus should be on limiting the spread of fake news and minimizing the damage it can cause. On the one hand, it is up to the scientific community to stand up against the spread of false information and fake science and to resolutely oppose the public figures who promote it. Scientists should contribute to research that promotes the understanding of false information, to education that develops knowledge and skills in the assessment of information, and to the scientific literacy of society. Even the publication of a “popular,” understandable to the general public, press release about one’s scientific work on the website of a scientific organization or university can contribute to the reliability of news information, i.e., the best way to combat fake science news is to fill the modern media environment with engaging and reliable information. On the other hand, the scientific community must promote ethics and integrity in research, the development of policies and practices to reduce the publication of false data and results and the use of predatory journals without adequate peer review [44, 45].

#### Fake news is an impact magnifier destroying liberal institutions while simultaneously triggering catastrophic warming.

Al-Rodhan 17 [Nayef. Honorary Fellow at St Antony’s College, University of Oxford, and Senior Fellow and Head of the Geopolitics and Global Futures Programme at the Geneva Centre for Security Policy. 6/7/17. “Post-Truth Politics, the Fifth Estate and the Securitization of Fake News.” Global Policy. <https://www.globalpolicyjournal.com/blog/07/06/2017/post-truth-politics-fifth-estate-and-securitization-fake-news>] Justin

“Post-truth” was selected the 2016 ‘word of the year’ by the Oxford Dictionaries but the term is symptomatic of an ‘era’, rather than a year: an era of boundless virtual communication, where politics thrives on a repudiation of facts and commonsense. ‘Post-truthness’ crosses new lines of division: political splits seem to be less about ideology and more a battle between facts and lies.

Although the term “post-truth” has existed for over two decades, 2016 was an appropriate time to give it a boost of popularity. The Oxford Dictionaries defined “post-truth” as “relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief”. The Economist has devoted several pieces to post-truth politics, which it defines as a “reliance on assertions that “feel true” but have no basis in fact”. Such assertions often remain unverified and have little or no repercussions for the culprits; even if said claims are exposed as stark lies, they do little to delegitimize the perpetrator.

Post-truth politics everywhere has a fundamental common denominator: it appeals to emotions and gut feeling more than facts and evidence. Fake news and conspiracy theories can go viral in a matter of hours, creating alternate realities and serving propaganda purposes. Post-truth is a threat to liberal democracy and its institutions and simultaneously exposes the vulnerability of the liberal order. It is also a symptom of a greater problem, which is accountability in the online community.

Denial of facts, deceit and rumour-based allegations are nothing new in politics. In 1986, Ronald Reagan admitted publicly on national television that he had traded weapons for hostages with Iran – after having insisted for months that he had not. He concluded that: “my heart and my best intentions still tell me that’s true, but the facts and evidence tell me it is not”.

Nowadays, the term “fake news” has become ubiquitous to the extent that it conveniently used in an accusatory manner, to denounce or belittle any uncomfortable or inconvenient facts. President Trump has frequently labeled real, verified news from mainstream outlets as “fake news” – a step further from what any other politicians have done in the past, despite the fact that many US presidents have had a complicated and adversarial relationship with the press. In 1962, Nixon partly blamed the press for his loss in the elections for governor of California. Subsequently, once president, he created the White House Communications Office to ensure his interactions with the media were as predictable and orchestrated as possible.

Even so, what we are witnessing today, in the “post-truth” era is more menacing because of the multiplication of channels of communication. Information now can circulate freely and unverified on the Internet, providing possibilities of misinformation and propaganda on a scale that was previously virtually impossible. In effect, it is now possible to share fake news more frequently than verified news, also due to the fact that social media has enabled the proliferation of authentic-looking or misleading fake accounts that help spread lies, most often directed against the liberal public.

What is truth anyway?

The Oxford Dictionaries dates the first use of the term to a 1992 essay by Steve Tesich, a Serbian-American playwright writing in The Nation following the Iran/Contra scandal. Tesich reflected that after the Watergate revelations and reporting of atrocities from Vietnam, Americans had become contemptuous of uncomfortable truths. He noted: “we came to equate the truth with bad news (…). We looked to our government to protect us from the truth”.

Journalist David Roberts also used the term “post-truth” more than two decades ago to refer to the response of some US politicians refuting scientific claims about climate change.

In 2004, Ralph Keyes proclaimed we had reached the age of “post-truth”. In his 2004 book, “The Post-Truth Era: Dishonesty and Deception in Contemporary Life”, Keyes expressed the concern that we are losing the stigma attached to lying, meaning that lies can be told with impunity. For Keyes, such times of “post truthfulness” represent an ethical twilight zone.

The common theme running across the history of the term is that post-truth is defined by lies spread routinely by politicians, with little or no significant consequences for their legitimacy and reputation. But there are inevitable consequences for the future of democracy and the future of humanity: a future in which scientific facts are repudiated cannot be anything but insecure. Veritas, or truth, and facts are crucial for humanity, and indispensible for effective decision-making and ultimately, for human progress. Moreover, facts-based policies are also important in an existential sense and indispensible to our own survival – the case of the debate on climate change being a prime example.

Geopolitics and Fake News

Geopolitics in the era of fake-news is also complicated because post-truth disrupts a fundamental element of diplomacy and international politics, namely communication. Unsubstantiated allegations and groundless claims will distort diplomatic relations and lead political and military processes astray. False claims about the money ‘extorted’ from the UK by the European Union helped build the case for Brexit, with its ensuing implications for stability in Europe and elsewhere. The Russian state used social media to spread allegations that the Ukranian government crucified a child – a claim later debunked, yet telling of how fake news can help fuel wars. Similarly, populist rhetoric about NATO’s inadequacy and misinformation about its funding mask ignorance about the real benefits of the alliance for its members’ common security. Although unsubstantiated, such comments are enough to create anxiety in political quarters and prompt some Eastern European nations to see their state security in a wholly different geopolitical light. In the post-truth era, a complete lack of understanding of military strategy and the intricacies of warfare will be less relevant in devising policies, and this comes at the risk of dismantling security communities and the foundations of the liberal order.

The possibility of hijacking national elections also has profound geopolitical and security implications. This has been a particularly key topic in the aftermath of the US elections. The stakes are especially high in France, which is a key member of the European Union and NATO, and where the winning candidate can, quite unequivocally, impact the future of the liberal order.

The Enlightenment Tradition and Fake news

The conflict between objective fact and subjectivity has a long history in philosophical debates. Indeed, philosophy has mulled over relativism for centuries. After all, epistemic relativism is all about attributing validity to different views of the world, accepting those views are construed in a particular context and that somebody’s ‘truth’ depends on their context.

Yet, while we can accept that there are many ‘truths’ that individuals live by, the post-truth era repudiates science and scholarly expertise with a vigour that can only concern us. If everything can be interpreted, then nothing can be certain whatsoever. What place is there for the community of scientists in an era of post-truth? Facts, statistics, evidence are either distorted or rebuffed in the age of post-truth. The Enlightenment tradition taught us to celebrate freedom of thought and human reason as a marker of our shared humanity, affirming that despite different opinions, we could find common ground owning to our capacity for reason. Humans, as independent, sovereign entities were bound to seek to unlock the forces that keep them in the dark. The Enlightenment project was not only about reason, but also about wider political goals: it was internationalist in spirit, strongly anti-clerical, and celebrated individual freedom and human rights.

Edmund Burke, who vigorously opposed the ideals of the French Revolutions, decried the turn to reason that the Enlightenment so strongly advocated: for Burke, history, tradition and collective wisdom were more meaningful and enduring sources of legitimacy for human institutions. Nietzsche was a fierce critic of the Enlightenment, considering its ideals as arrogant illusions. Many other thinkers, like Isaiah Berlin, for instance, challenged the claims of the Enlightenment and considered it rather utopian. Rationality, and the notion that mankind can carve its own destiny, was dangerous and materialistic. The ideas contained in the anti-Enlightenment movement gained traction and essentially laid the foundations for anti-intellectualism. The ‘post-truth age’ is reminiscent of this attack on reason.

Anti-globalization, xenophobic and nationalistic politicians will be relieved to have the Enlightenment legacy challenged but their alternative is anything but sustainable in the long run. The fact that individuals are swamped with fake news that question scientific forecasts is hardly a reason for celebration celebrate.

Moreover, as further detailed below, we are now compelled to question the long-held premise about the human faculty to seek intellectual freedom and reason from another angle altogether. Cognitive sciences and cognitive linguistics, in particular, send a similar warning, demonstrating that people are more likely to validate messages that use certain mental structures such as metaphors and frames, rather than pure reason. Neuroscience and Fake News Neuroscience hints at similar biases of interpretation of the world – our brains acquire knowledge and understanding of the world by a combination of sense experience and reason. Knowledge is always situational. It also always rooted in physicalism because everything in the brain is physical: every thought process is mediated by neurochemistry and neuroanatomical responses. This means knowledge develops as a unique experience for each individual. With insights from neuroscience, I have called this paradigm of knowledge-formation neuro-rational physicalism. The idea of knowledge as not only personal (and therefore not universal), but also a physical process was not particularly popular in philosophy before the advent of neuroscience and neuroimaging tools, which allowed unprecedented visual access into the brain. Neuroscientific research also provides insight into why fake news could appear so enticing and easy to spread. The clue seems to lie in the role that emotions play in our thinking, being far more important than the ‘rational’ portion of our decision-making. Other recent findings reinforce this premise: the prefrontal cortex, which hosts the logical part of the brain, comes second in the process of reading the news. What will make a piece of news more likely to be shared is whether it activates the social part of the brain, and whether it has a wider social value for the reader. However, the problem with post-truth goes beyond individual responsibility, as a vast panoply of political and commercial entities contribute to complicating the access to information. Digital Capitalism and Fake News The search for ‘truth’ in the age of technology is complicated by the unique challenges raised by the medium of communication itself. Content no longer comes primarily in bundles, such as newspapers, but through social media. A survey by the Pew Centre revealed that the majority of adults in the US (62%) get their news from social media platforms. The internet has changed how people communicate, not only in terms of speed but also by enabling individuals to find and coalesce around other groups with biases similar to their own, thereby reinforcing their beliefs. In the early 2000s, the advent of the internet was hailed as a new era in individual and political freedom, allowing for greater democratic participation. The transformative power of internet-mediated communication seemed to be tested and confirmed with “color revolutions” around the world. In this context, blogs epitomize the democratization of the media, empowering private citizens to expose abuses of power, call for grassroots mobilization or voice concerns – often protected by anonymity. Such new opportunities of expression give online channels an immense role in public life. I have previously called blogs “the fifth estate”, for their potential to become avatars of power, going beyond the power of the traditional press, which Edward Burke had famously dubbed ‘the fourth estate’. But the emergence of a post-truth reality shows the reverse, darker, side of this development. Now the Internet and its many platforms are emerging as terrifying forces, giving rise to the major moral crisis of our times.

The profusion of fake news in the post-truth age can do irreparable damage to the foundations of the liberal order. Fake news will only sharpen polarizations, corrupt intellectual integrity and damage the fabric of democracy. Post-truth thrives in a very polarized or partisan environment, where the idea of truth is already split into notions of “my truth vs. your truth”. Fake news then reinforces existing political and social polarizations, leading to a downward spiral into more divisions and uncertainty.

But focusing exclusively on the end results of media falsehood and “alternative facts” risks misplacing blame entirely on dishonest politicians. Indeed, the medium itself in which the post-truth age has developed is not neutral. Rather, much of this medium is owned by private “digital giants” that profit immensely from click-baits. Given the power of companies like Google and Facebook, digital capitalism has a share of responsibility in the larger narrative about post-truth.

#### Climate change causes extinction.

Dr. Peter Kareiva 18 – Ph.D. in Ecology and Applied Mathematics from Cornell University, Director of the Institute of the Environment and Sustainability at UCLA, Pritzker Distinguished Professor in Environment & Sustainability at UCLA, et al., September 2018, “Existential Risk Due To Ecosystem Collapse: Nature Strikes Back”, Futures, Volume 102, p. 39-50

In summary, six of the nine proposed planetary boundaries (phosphorous, nitrogen, biodiversity, land use, atmospheric aerosol loading, and chemical pollution) are unlikely to be associated with existential risks. They all correspond to a degraded environment, but in our assessment do not represent existential risks. However, the three remaining boundaries (climate change, global freshwater cycle, and ocean acidification) do pose existential risks. This is because of intrinsic positive feedback loops, substantial lag times between system change and experiencing the consequences of that change, and the fact these different boundaries interact with one another in ways that yield surprises. In addition, climate, freshwater, and ocean acidification are all directly connected to the provision of food and water, and shortages of food and water can create conflict and social unrest.

Climate change has a long history of disrupting civilizations and sometimes precipitating the collapse of cultures or mass emigrations (McMichael, 2017). For example, the 12th century drought in the North American Southwest is held responsible for the collapse of the Anasazi pueblo culture. More recently, the infamous potato famine of 1846–1849 and the large migration of Irish to the U.S. can be traced to a combination of factors, one of which was climate. Specifically, 1846 was an unusually warm and moist year in Ireland, providing the climatic conditions favorable to the fungus that caused the potato blight. As is so often the case, poor government had a role as well—as the British government forbade the import of grains from outside Britain (imports that could have helped to redress the ravaged potato yields).

Climate change intersects with freshwater resources because it is expected to exacerbate drought and water scarcity, as well as flooding. Climate change can even impair water quality because it is associated with heavy rains that overwhelm sewage treatment facilities, or because it results in higher concentrations of pollutants in groundwater as a result of enhanced evaporation and reduced groundwater recharge. Ample clean water is not a luxury—it is essential for human survival. Consequently, cities, regions and nations that lack clean freshwater are vulnerable to social disruption and disease.

Finally, ocean acidification is linked to climate change because it is driven by CO2 emissions just as global warming is. With close to 20% of the world’s protein coming from oceans (FAO, 2016), the potential for severe impacts due to acidification is obvious. Less obvious, but perhaps more insidious, is the interaction between climate change and the loss of oyster and coral reefs due to acidification. Acidification is known to interfere with oyster reef building and coral reefs. Climate change also increases storm frequency and severity. Coral reefs and oyster reefs provide protection from storm surge because they reduce wave energy (Spalding et al., 2014). If these reefs are lost due to acidification at the same time as storms become more severe and sea level rises, coastal communities will be exposed to unprecedented storm surge—and may be ravaged by recurrent storms.

A key feature of the risk associated with climate change is that mean annual temperature and mean annual rainfall are not the variables of interest. Rather it is extreme episodic events that place nations and entire regions of the world at risk. These extreme events are by definition “rare” (once every hundred years), and changes in their likelihood are challenging to detect because of their rarity, but are exactly the manifestations of climate change that we must get better at anticipating (Diffenbaugh et al., 2017). Society will have a hard time responding to shorter intervals between rare extreme events because in the lifespan of an individual human, a person might experience as few as two or three extreme events. How likely is it that you would notice a change in the interval between events that are separated by decades, especially given that the interval is not regular but varies stochastically? A concrete example of this dilemma can be found in the past and expected future changes in storm-related flooding of New York City. The highly disruptive flooding of New York City associated with Hurricane Sandy represented a flood height that occurred once every 500 years in the 18th century, and that occurs now once every 25 years, but is expected to occur once every 5 years by 2050 (Garner et al., 2017). This change in frequency of extreme floods has profound implications for the measures New York City should take to protect its infrastructure and its population, yet because of the stochastic nature of such events, this shift in flood frequency is an elevated risk that will go unnoticed by most people.

4. The combination of positive feedback loops and societal inertia is fertile ground for global environmental catastrophes.

Humans are remarkably ingenious, and have adapted to crises throughout their history. Our doom has been repeatedly predicted, only to be averted by innovation (Ridley, 2011). However, the many stories of human ingenuity successfully addressing existential risks such as global famine or extreme air pollution represent environmental challenges that are largely linear, have immediate consequences, and operate without positive feedbacks. For example, the fact that food is in short supply does not increase the rate at which humans consume food—thereby increasing the shortage. Similarly, massive air pollution episodes such as the London fog of 1952 that killed 12,000 people did not make future air pollution events more likely. In fact it was just the opposite—the London fog sent such a clear message that Britain quickly enacted pollution control measures (Stradling, 2016). Food shortages, air pollution, water pollution, etc. send immediate signals to society of harm, which then trigger a negative feedback of society seeking to reduce the harm.

In contrast, today’s great environmental crisis of climate change may cause some harm but there are generally long time delays between rising CO2 concentrations and damage to humans. The consequence of these delays are an absence of urgency; thus although 70% of Americans believe global warming is happening, only 40% think it will harm them (http://climatecommunication.yale.edu/visualizations-data/ycom-us-2016/). Secondly, unlike past environmental challenges, the Earth’s climate system is rife with positive feedback loops. In particular, as CO2 increases and the climate warms, that very warming can cause more CO2 release which further increases global warming, and then more CO2, and so on. Table 2 summarizes the best documented positive feedback loops for the Earth’s climate system. These feedbacks can be neatly categorized into carbon cycle, biogeochemical, biogeophysical, cloud, ice-albedo, and water vapor feedbacks. As important as it is to understand these feedbacks individually, it is even more essential to study the interactive nature of these feedbacks. Modeling studies show that when interactions among feedback loops are included, uncertainty increases dramatically and there is a heightened potential for perturbations to be magnified (e.g., Cox, Betts, Jones, Spall, & Totterdell, 2000; Hajima, Tachiiri, Ito, & Kawamiya, 2014; Knutti & Rugenstein, 2015; Rosenfeld, Sherwood, Wood, & Donner, 2014). This produces a wide range of future scenarios.

Positive feedbacks in the carbon cycle involves the enhancement of future carbon contributions to the atmosphere due to some initial increase in atmospheric CO2. This happens because as CO2 accumulates, it reduces the efficiency in which oceans and terrestrial ecosystems sequester carbon, which in return feeds back to exacerbate climate change (Friedlingstein et al., 2001). Warming can also increase the rate at which organic matter decays and carbon is released into the atmosphere, thereby causing more warming (Melillo et al., 2017). Increases in food shortages and lack of water is also of major concern when biogeophysical feedback mechanisms perpetuate drought conditions. The underlying mechanism here is that losses in vegetation increases the surface albedo, which suppresses rainfall, and thus enhances future vegetation loss and more suppression of rainfall—thereby initiating or prolonging a drought (Chamey, Stone, & Quirk, 1975). To top it off, overgrazing depletes the soil, leading to augmented vegetation loss (Anderies, Janssen, & Walker, 2002).

Climate change often also increases the risk of forest fires, as a result of higher temperatures and persistent drought conditions. The expectation is that forest fires will become more frequent and severe with climate warming and drought (Scholze, Knorr, Arnell, & Prentice, 2006), a trend for which we have already seen evidence (Allen et al., 2010). Tragically, the increased severity and risk of Southern California wildfires recently predicted by climate scientists (Jin et al., 2015), was realized in December 2017, with the largest fire in the history of California (the “Thomas fire” that burned 282,000 acres, https://www.vox.com/2017/12/27/16822180/thomas-fire-california-largest-wildfire). This catastrophic fire embodies the sorts of positive feedbacks and interacting factors that could catch humanity off-guard and produce a true apocalyptic event. Record-breaking rains produced an extraordinary flush of new vegetation, that then dried out as record heat waves and dry conditions took hold, coupled with stronger than normal winds, and ignition. Of course the record-fire released CO2 into the atmosphere, thereby contributing to future warming.

Out of all types of feedbacks, water vapor and the ice-albedo feedbacks are the most clearly understood mechanisms. Losses in reflective snow and ice cover drive up surface temperatures, leading to even more melting of snow and ice cover—this is known as the ice-albedo feedback (Curry, Schramm, & Ebert, 1995). As snow and ice continue to melt at a more rapid pace, millions of people may be displaced by flooding risks as a consequence of sea level rise near coastal communities (Biermann & Boas, 2010; Myers, 2002; Nicholls et al., 2011). The water vapor feedback operates when warmer atmospheric conditions strengthen the saturation vapor pressure, which creates a warming effect given water vapor’s strong greenhouse gas properties (Manabe & Wetherald, 1967).

Global warming tends to increase cloud formation because warmer temperatures lead to more evaporation of water into the atmosphere, and warmer temperature also allows the atmosphere to hold more water. The key question is whether this increase in clouds associated with global warming will result in a positive feedback loop (more warming) or a negative feedback loop (less warming). For decades, scientists have sought to answer this question and understand the net role clouds play in future climate projections (Schneider et al., 2017). Clouds are complex because they both have a cooling (reflecting incoming solar radiation) and warming (absorbing incoming solar radiation) effect (Lashof, DeAngelo, Saleska, & Harte, 1997). The type of cloud, altitude, and optical properties combine to determine how these countervailing effects balance out. Although still under debate, it appears that in most circumstances the cloud feedback is likely positive (Boucher et al., 2013). For example, models and observations show that increasing greenhouse gas concentrations reduces the low-level cloud fraction in the Northeast Pacific at decadal time scales. This then has a positive feedback effect and enhances climate warming since less solar radiation is reflected by the atmosphere (Clement, Burgman, & Norris, 2009).

The key lesson from the long list of potentially positive feedbacks and their interactions is that runaway climate change, and runaway perturbations have to be taken as a serious possibility. Table 2 is just a snapshot of the type of feedbacks that have been identified (see Supplementary material for a more thorough explanation of positive feedback loops). However, this list is not exhaustive and the possibility of undiscovered positive feedbacks portends even greater existential risks. The many environmental crises humankind has previously averted (famine, ozone depletion, London fog, water pollution, etc.) were averted because of political will based on solid scientific understanding. We cannot count on complete scientific understanding when it comes to positive feedback loops and climate change.

#### Internationalism grounded in democratic norms averts a laundry list of existential catastrophes.

Brooks 14 [Rosa; November 14; Professor of Law at Georgetown University, Senior Fellow with the New America and Arizona State University Future of War Project, former Senior Advisor at the U.S. State Department; Foreign Policy, “Embrace the Chaos,” https://foreignpolicy.com/2014/11/14/embrace-the-chaos/; RP]

I. The Character of the Mess

Defining the character of the current mess is the easy part. Briefly:

* The last century’s technological revolutions have made our world more globally interconnected than ever.
* Power (along with access to power) has become more democratized and diffuse in some ways, but more concentrated in other ways.
* For most individuals around the globe, day-to-day life is far less dangerous and brutal than in previous eras; for the species as a whole, however, the risk of future global catastrophe has increased.
* The continuously accelerating rate of technological and social change makes it increasingly difficult to predict the geopolitical future.

Nothing is particularly original about these observations; they’re repeated in some fashion in every major national strategic document produced over the last decade. They probably teach this stuff to kindergarteners now. Indeed, we’ve heard it all so often that it’s tempting to dismiss such claims as meaningless platitudes: Been there; theorized that. Can we get please get back to foreign-policy business as usual?

No, we can’t. Not if we want our children and grandchildren to live decent lives. If we care about the future at all, we need to do more than prattle on at cocktail parties about globalization, interconnectedness, complexity, danger, and uncertainty. We need to feel these seismic changes in our bones.

So bear with me. Let’s try to breathe some life into the clichés.

I’ve written about these issues before (here and here), and at risk of being both a narcissist and a broken record, I’ll quote myself:

The world has grown more complex. Believe it. The world now contains more people living in more states than ever before, and we’re all more interconnected. A hundred years ago, the world population was about 1.8 billion, there were roughly 60 sovereign states in the world, the automobile was still a rarity, and there were no commercial passenger flights and no transcontinental telephone service. Fifty years ago, global population had climbed to more than 3 billion and there were 115 U.N. member states, but air travel was still for the wealthy and the personal computer still lay two decades in the future.

Today? We’ve got 7 billion people living in 192 U.N. member states and a handful of other territories. These 7 billion people take 93,000 commercial flights a day from 9,000 airports, drive 1 billion cars, and carry 7 billion mobile phones around with them.

In numerous ways, life has gotten substantially better in this more crowded and interconnected era. Seventy years ago, global war killed scores of millions, but interstate conflict has declined sharply since the end of World War II, and the creation of the United Nations ushered in a far more egalitarian and democratic form of international governance than existed in any previous era. Today, militarily powerful states are far less free than in the pre-U.N. era to use overt force to accomplish their aims, and the world now has numerous transnational courts and dispute-resolution bodies that collectively offer states a viable alternative to the use of force. The modern international order is no global utopia, but it sure beats colonial domination and world wars.

In the 50 years that followed World War II, medical and agricultural advances brought unprecedented health and prosperity to most parts of the globe. More recently, the communications revolution has enabled exciting new forms of nongovernmental cross-border alliances to emerge, empowering, for instance, global human rights and environmental movements. In just the last two decades, the near-universal penetration of mobile phones has had a powerful leveling effect: All over the globe, people at every age and income level can use these tiny but powerful computers to learn foreign languages, solve complex mathematical problems, create and share videos, watch the news, move money around, or communicate with far-flung friends.

All this has had a dark side, of course. As access to knowledge has been democratized, so too has access to the tools of violence and destruction, and greater global interconnectedness enables disease, pollution, and conflict to spread quickly and easily beyond borders. A hundred years ago, no single individual or nonstate actor could do more than cause localized mayhem; today, we have to worry about massive bioengineered threats created by tiny terrorist cells and globally devastating cyberattacks devised by malevolent teen hackers.

Even as many forms of power have grown more democratized and diffuse, other forms of power have grown more concentrated. A very small number of states control and consume a disproportionate share of the world’s resources, and a very small number of individuals control most of the world’s wealth. (According to a 2014 Oxfam report, the 85 richest individuals on Earth are worth more than the globe’s 3.5 billion poorest people).

Indeed, from a species-survival perspective, the world has grown vastly more dangerous over the last century. Individual humans live longer than ever before, but a small number of states now possess the unprecedented ability to destroy large chunks of the human race and possibly the Earth itself — all in a matter of days or even hours. What’s more, though the near-term threat of interstate nuclear conflict has greatly diminished since the end of the Cold War, nuclear material and know-how are now both less controlled and less controllable.

Amid all these changes, our world has also grown far more uncertain. We possess more information than ever before and vastly greater processing power, but the accelerating pace of global change has far exceeded our collective ability to understand it, much less manage it. This makes it increasingly difficult to make predictions or calculate risks. As I’ve written previously:

We literally have no points of comparison for understanding the scale and scope of the risks faced by humanity today. Compared to the long, slow sweep of human history, the events of the last century have taken place in the blink of an eye. This should … give us pause when we’re tempted to conclude that today’s trends are likely to continue. Rising life expectancy? That’s great, but if climate change has consequences as nasty as some predict, a century of rising life expectancy could turn out to be a mere blip on the charts. A steep decline in interstate conflicts? Fantastic, but less than 70 years of human history isn’t much to go on….

That’s why one can’t dismiss the risk of catastrophic events [such as disastrous climate change or nuclear conflict] as “high consequence, low probability.” How do we compute the probability of catastrophic events of a type that has never happened? Does 70 years without nuclear annihilation tell us that there’s a low probability of nuclear catastrophe — or just tell us that we haven’t had a nuclear catastrophe yet?…

Lack of catastrophic change might signify a system in stable equilibrium, but sometimes — as with earthquakes — pressure may be building up over time, undetected….

Most analysts assumed the Soviet Union was stable — until it collapsed. Analysts predicted that Egypt’s Hosni Mubarak would retain his firm grip on power — until he was ousted. How much of what we currently file under “Stable” should be recategorized under “Hasn’t Collapsed Yet”?

This, then, is the character of world messiness in this first quarter of the 21st century. So on to the next question: Where, in all this messiness, does the United States find itself?

II. The United States in the Mess: Goodbye, Lake Wobegon?

For Americans, the good news is that the United States remains an extraordinarily powerful nation. The United States has “the most powerful military in history,” Obama declared in a recent speech. Measured by sheer destructive capacity, he is surely right. The United States spends more on its military than China, Russia, Saudi Arabia, France, the United Kingdom, Germany, Japan, and India combined. The U.S. military can get to more places, faster, with more lethal and effective weapons, than any military on Earth.

The United States also manages to gobble up a disproportionate share of the world’s wealth and resources. By the year 2000, wrote Betsy Taylor and Dave Tilford, the United States, with “less than 5 percent of the world’s population,” was using “one-third of the world’s paper, a quarter of the world’s oil, 23 percent of the coal, 27 percent of the aluminum, and 19 percent of the copper.” In 2010, Americans possessed 39 percent of the planet’s wealth. The bad news for Americans? U.S. power and global influence have been declining. In part, this is because various once-weak states have been growing stronger, and in part, it’s because no state can be as autonomous today as it might have been in the past. The United States’ geographical position long helped protect it from external interference, while its strong military and economy enabled it to dominate or control numerous less powerful states. But globalization has reduced every state’s autonomy, creating collective challenges — from climate change to the regulation of capital — that no state can fully address on its own. U.S. power and global influence have also declined in absolute terms, as America’s own political and economic health has been called into question. The United States now has greater income inequality than almost every other state in the developed world — and most states in the developing world. American life expectancy ranks well below that of other industrialized democracies, and the same is true for infant mortality and elementary school enrollment. Meanwhile, the United States has the world’s highest per capita incarceration rate, and on international health and quality-of-life metrics, the United States has been losing ground for several decades. This domestic decline jeopardizes the country’s continued ability to innovate and prosper; it also makes American values and the American political and economic systems less appealing to others. Worse, the political system that Americans rely on for reform and repair seems itself to be broken; the federal government shutdown in 2013 offered the world a striking illustration of U.S. political dysfunction. Add to this the divisive national security policies of George W. Bush’s administration — many of which were continued or expanded by the Obama administration — and it’s no surprise that the United States has recently become less admired and less emulated around the globe, reducing American “soft power.” No matter how you slice it, it comes to the same thing: Compared with 30 years ago, the United States today has a greatly reduced ability to control its own destiny or the destiny of other states. The United States still has unprecedented power to destroy (Saddam Hussein and Osama bin Laden both discovered this, to their detriment). But the country’s capacity for destruction is not equaled by its capacity to shape the behavior of other states or their populations, and the United States has less and less ability to insulate itself from the world’s woes. Unfortunately, American political leaders share a bipartisan inclination to deny these realities. Mostly, they succumb to the Lake Wobegon effect: “Declinism” and “declinist” have entered the American political vocabulary, but only as purely pejorative terms. This is both stupid and dangerous. How can we adapt our global strategy to compensate for the ways in which U.S. power has been declining if we refuse to admit that decline? Continued U.S. decline is certainly not inevitable, and some argue that the United States is in fact poised for an economic and political resurgence. There is no way to know for sure — but it’s worth recalling that, historically, every significant empire has eventually declined. Are we prepared to bet that the United States will prove an exception? There is also no way to know for sure what form continued or eventual U.S. decline will take. We don’t know whether it will be fast or slow; we don’t know whether the American Empire is in for a hard landing or a soft one. Will the United States crash, like the former Soviet Union? Or will a slow decline in power leave the country an intact and influential nation, like the United Kingdom? Will America’s future be more like Canada’s present, or more like Brazil’s? III. Behind the Veil of Ignorance: Uncertainty as Lodestone We don’t know what America’s future will look like, and we can make fewer and fewer geopolitical predictions with confidence. The world has changed too much and too fast for us to accurately assess the probabilities of many types of future events. Perhaps this is why it’s so tempting for Americans to stay in Lake Wobegon, with eyes closed and fingers crossed. Uncertainty is frightening. But paradoxically, this very uncertainty should be a lodestone, pointing realists and idealists alike toward a sensible, forward-looking global strategy. In fact, radical uncertainty can be a powerful tool for strategic planning. That may seem oxymoronic, but consider one of the 20th century’s most influential thought experiments: In his 1971 book, A Theory of Justice, philosopher John Rawls famously sought to use a hypothetical situation involving extreme uncertainty to derive optimal principles of justice. Imagine, said Rawls, rational, free, and equal humans seeking to devise a set of principles to undergird the structure of human society. Imagine further that they must reason from behind what Rawls dubbed a “veil of ignorance,” which hides from them their own future status or attributes. Behind the veil of ignorance, wrote Rawls, people still possess general knowledge of economics, science, and so forth, and they can draw on this knowledge to assist them in designing a future society. Their ignorance is limited to their own future role in the society they are designing: “no one knows his place in society, his class position or social status, nor does any one know his fortune in the distribution of natural assets and abilities, his intelligence, strength, and the like.” If we were collectively designing social structures and rules, but could not know our own individual future positions in that social structure, what structures and rules would we come up with? Applying a version of decision theory, Rawls concluded that in the face of such radical uncertainty, rational, free, and equal beings behind the veil of ignorance would be drawn toward a “maximin” (or “minimax“) rule of decision, in which they would seek to minimize their losses in a worst-case scenario. Since those behind the veil of ignorance don’t know whether they’ll be among the haves or among the have-nots in the society they are designing, they should seek to build a society in which they each will be least badly off — even the luck of the draw leads them to start with the fewest advantages. Rawls posited that such a rule of decision should lead those behind the veil of ignorance to support two core principles: the first relating to liberty (“each person [should] have an equal right to the most extensive basic liberty compatible with a similar liberty for others”), and the second relating to social and economic goods. (Social goods should be distributed equally, unless an unequal distribution would serve the common good and be “to the greatest benefit of the least advantaged,” while “offices and positions [should remain] open to all under conditions of fair equality of opportunity.”) This is in some ways intuitive: On a national level, it is the reason Americans across the political spectrum continue to express substantial support for the maintenance of unemployment benefits, Social Security, Medicare and Medicaid, and so on. Any one of us might someday face a job loss or illness; nearly all of us will eventually face old age. We know we might someday need those benefits ourselves. In the face of uncertainty about the future, we all recognize the value of insurance, savings, and at least some minimal social safety net. In the international arena, the same is true. This has obvious implications for global strategy. Empires, like individuals, can sink into poverty, illness, or simple old age — and in an era of uncertainty, empires, like individuals, would do well to hedge against the possibility of future misfortune. Indeed, two decades after the publication of A Theory of Justice, Rawls sought to apply a form of this thought experiment to derive the core principles that he believed would characterize a just global order. His arguments are complex, and I can’t do justice to them here — but fortunately, unlike Rawls, I am not interested in coming up with abstract principles of global justice. My less lofty agenda is limited to arguing that a crude version of Rawls’s thought experiment can help us delineate the contours of a sensible U.S. global strategy — a “maximin” strategy that is well-suited to protecting the interests of the United States and its people, both in today’s messy world and in a wide range of future messes. Here’s my thought experiment. Imagine a crude version of Rawls’s veil of ignorance, with only the United States behind it. This veil of ignorance doesn’t require us to disavow what we know of history (America’s or the world’s), nor does it require us to disavow what we know of recent trends, present global realities, U.S. values, or our current conception of the good. It only hides our future from us: Behind this veil of ignorance, we don’t know whether energy, food, water, and other vital resources will be scarcer or more plentiful in the decades to come; we don’t know whether global power will be more or less centralized; we don’t know whether new technologies and new forms of social organization will make existing technologies and institutions obsolete. Most of all, we don’t know whether, in the decades to come, the United States will be rich or poor, weak or strong, respected or hated. For that matter, we don’t know whether the United States — or even the form of political organization we call the nation-state — will exist at all a century or two from now. In the face of such radical uncertainty, what kind of grand strategy should a rational United States adopt? Of course, this shouldn’t really be called a “thought experiment” at all: The United States already operates behind a veil of ignorance, if we could only bring ourselves to admit it. We know the past; we have a reasonable understanding of recent trends; we know that the world is messy and dangerous; we know that the potential for rapid and potentially catastrophic change is real; and we know that our ability to predict future changes and quantify various risks is profoundly limited. This knowledge is profoundly unsettling. Thus, we try our best to know and not know, at the same time: We speak glibly of complexity, accelerating change, danger, and uncertainty, but then fall back into the comfortable assumption that continued U.S. global dominance is a given and that catastrophic change is unlikely to occur. As long as we remain willfully ignorant of the veil of ignorance that hangs over us, we can avoid asking hard questions and making harder choices.

But this is shortsighted and dangerous. Empires that refuse to accept reality tend to rapidly decline. A clear-eyed acceptance of uncertainty and risk is the surest route to a more secure future. Instead of blinding us or paralyzing us, the uncertainty of our future should motivate us to engage in more responsible strategic planning.

If the United States can manage to be as rational as Rawls’s hypothetical decision-makers, it should adopt a similar maximin rule of decision: It should prefer international rules and institutions that will maximize America’s odds of thriving, even in a worst-case future scenario. In fact, we should wish for international rules and institutions that will be kindest to the individuals living in what is now the United States and their descendants, even if the United States should someday cease to exist entirely.

Could happen, folks. Look around you. Do you see the Roman Empire, or the Aztec Empire, or the Ottoman Empire?

IV. From Messiness to Strategy: A Preliminary Sketch

This has urgent implications for U.S. strategic planning. Precisely because U.S. global power may very well continue to decline, the United States should use the very considerable military, political, cultural, and economic power it still has to foster the international order most likely to benefit the country if it someday loses that power.

The ultimate objective of U.S. grand strategy should be the creation of an equitable and peaceful international order with an effective system of global governance — one that is built upon respect for human dignity, human rights, and the rule of law, with robust mechanisms for resolving thorny collective problems.

We should seek this not because it’s the “morally right” thing for the United States to do, but because a maximin decision rule should lead us to conclude that this will offer the United States and its population the best chance of continuing to thrive, even in the event of a radical future decline in U.S. wealth and power.

But, one might argue, the United States already tries to promote such a global order — right?

Sure it does — but only inconsistently, and generally as something of an afterthought. We pour money into our military and intelligence communities, but starve our diplomats and development agencies. We fixate on the threat du jour, often exaggerating it and allowing it to distort our foreign policy in self-destructive ways (cf. Iraq War), while viewing matters such as United Nations reform or reform of global economic institutions or environmental protection rules as tedious and of low priority. If we take seriously the many potential dangers lurking in the unknowable future, however, fostering a stronger, fairer, and more effective system of international governance would become a matter of urgent national self-interest and our highest strategic priority — something that should be reflected both in our policies and in our budgetary decisions.

An effective global governance system would need to be built upon the recognition that states remain the primary mode of political and social organization in the international sphere, but also upon the recognition that new forms of social organization continue to evolve and may ultimately displace at least some states. An effective and dynamic international system will need to develop innovative ways to bring such new actors and organizations within the ambit of international law and institutions, both as responsible creators of law and institutions and as responsible subjects.

#### The liberal order caps nuclear war, rogue tech, climate change, and bio-arms racing.

Harari 18 [Yuval; September 26; Professor of History at the Hebrew University of Jerusalem; The Economist, “We need a post-liberal order now,” https://www.economist.com/open-future/2018/09/26/we-need-a-post-liberal-order-now]

The second thing to note about this vision of friendly fortresses is that it has been tried—and it failed spectacularly. All attempts to divide the world into clear-cut nations have so far resulted in war and genocide. When the heirs of Garibaldi, Mazzini and Mickiewicz managed to overthrow the multi-ethnic Habsburg Empire, it proved impossible to find a clear line dividing Italians from Slovenes or Poles from Ukrainians.

This had set the stage for the second world war. The key problem with the network of fortresses is that each national fortress wants a bit more land, security and prosperity for itself at the expense of the neighbors, and without the help of universal values and global organisations, rival fortresses cannot agree on any common rules. Walled fortresses are seldom friendly.

But if you happen to live inside a particularly strong fortress, such as America or Russia, why should you care? Some nationalists indeed adopt a more extreme isolationist position. They don’t believe in either a global empire or in a global network of fortresses. Instead, they deny the necessity of any global order whatsoever. “Our fortress should just raise the drawbridges,” they say, “and the rest of the world can go to hell. We should refuse entry to foreign people, foreign ideas and foreign goods, and as long as our walls are stout and the guards are loyal, who cares what happens to the foreigners?”

Such extreme isolationism, however, is completely divorced from economic realities. Without a global trade network, all existing national economies will collapse—including that of North Korea. Many countries will not be able even to feed themselves without imports, and prices of almost all products will skyrocket. The made-in-China shirt I am wearing cost me about $5. If it had been produced by Israeli workers from Israeli-grown cotton using Israeli-made machines powered by non-existing Israeli oil, it may well have cost ten times as much. Nationalist leaders from Donald Trump to Vladimir Putin may therefore heap abuse on the global trade network, but none thinks seriously of taking their country completely out of that network. And we cannot have a global trade network without some global order that sets the rules of the game.

Even more importantly, whether people like it or not, humankind today faces three common problems that make a mockery of all national borders, and that can only be solved through global cooperation. These are nuclear war, climate change and technological disruption. You cannot build a wall against nuclear winter or against global warming, and no nation can regulate artificial intelligence (AI) or bioengineering single-handedly. It won’t be enough if only the European Union forbids producing killer robots or only America bans genetically-engineering human babies. Due to the immense potential of such disruptive technologies, if even one country decides to pursue these high-risk high-gain paths, other countries will be forced to follow its dangerous lead for fear of being left behind.

An AI arms race or a biotechnological arms race almost guarantees the worst outcome. Whoever wins the arms race, the loser will likely be humanity itself. For in an arms race, all regulations will collapse. Consider, for example, conducting genetic-engineering experiments on human babies. Every country will say: “We don’t want to conduct such experiments—we are the good guys. But how do we know our rivals are not doing it? We cannot afford to remain behind. So we must do it before them.”

Similarly, consider developing autonomous-weapon systems, that can decide for themselves whether to shoot and kill people. Again, every country will say: “This is a very dangerous technology, and it should be regulated carefully. But we don’t trust our rivals to regulate it, so we must develop it first”.

The only thing that can prevent such destructive arms races is greater trust between countries. This is not an impossible mission. If today the Germans promise the French: “Trust us, we aren’t developing killer robots in a secret laboratory under the Bavarian Alps,” the French are likely to believe the Germans, despite the terrible history of these two countries. We need to build such trust globally. We need to reach a point when Americans and Chinese can trust one another like the French and Germans.

Similarly, we need to create a global safety-net to protect humans against the economic shocks that AI is likely to cause. Automation will create immense new wealth in high-tech hubs such as Silicon Valley, while the worst effects will be felt in developing countries whose economies depend on cheap manual labor. There will be more jobs to software engineers in California, but fewer jobs to Mexican factory workers and truck drivers. We now have a global economy, but politics is still very national. Unless we find solutions on a global level to the disruptions caused by AI, entire countries might collapse, and the resulting chaos, violence and waves of immigration will destabilise the entire world.

This is the proper perspective to look at recent developments such as Brexit. In itself, Brexit isn’t necessarily a bad idea. But is this what Britain and the EU should be dealing with right now? How does Brexit help prevent nuclear war? How does Brexit help prevent climate change? How does Brexit help regulate artificial intelligence and bioengineering? Instead of helping, Brexit makes it harder to solve all of these problems. Every minute that Britain and the EU spend on Brexit is one less minute they spend on preventing climate change and on regulating AI.

In order to survive and flourish in the 21st century, humankind needs effective global cooperation, and so far the only viable blueprint for such cooperation is offered by liberalism. Nevertheless, governments all over the world are undermining the foundations of the liberal order, and the world is turning into a network of fortresses. The first to feel the impact are the weakest members of humanity, who find themselves without any fortress willing to protect them: refugees, illegal migrants, persecuted minorities. But if the walls keep rising, eventually the whole of humankind will feel the squeeze.

#### Focus on one-shot impacts detract from broad governance which should come prior.

Sean 17 – Seán Ó hÉigeartaigh, Professor @ Cambridge, PhD in Genomics from Trinity College Dublin (Sean, “Technological Wild Cards: Existential Risk and a Changing Humanity”,  [https://www.bbvaopenmind.com/en/articles/technological-wild-cards-existential-risk-and-a-changing-humanity/)](https://www.bbvaopenmind.com/en/articles/technological-wild-cards-existential-risk-and-a-changing-humanity/)//)gcd recut Justin

Confronting the Limits of Our Knowledge

A common theme across these emerging technologies and emerging risks is that a tremendous level of scientific uncertainty and expert disagreement typically exists. This is particularly the case for future scientific progress and capabilities, the ways in which advances in one domain may influence progress in others, and the likely global impacts and risks of projected advances. Active topics of research at CSER include how to obtain useful information from a range of experts with differing views, and how to make meaningful scientific progress on challenges where we have discontinuous data, or few case studies to draw on, or even when we must characterize an entirely unprecedented event. This might be a hypothesized ecological tipping point, which when passed would result in an irreversible march toward the collapse of an entire critical ecosystem. Or it might be a transformative scientific breakthrough such as the development of artificial general intelligence, where we only have current trends in AI capability, hardware, and expert views on the key unsolved problems in the field to draw insight from. It is unrealistic to expect that we can always, or even for the most part, be right. We need to have humility, to expect false positives, and to be able to identify priority research targets from among many weak signals.

Recognizing that there are limits to the level of detail and certainty that can be achieved, this work is often combined with work on general principles of scientific and technological governance. For example, work under the heading of “responsible innovation” focuses on the challenge of developing collective stewardship of progress in science and technology in the present, with a view to achieving good future outcomes.21 This combines scientific foresight with processes to involve the key stakeholders at the appropriate stages of a technology’s development. At different stages these stakeholders will include: scientists involved in fundamental research and applied research; industry leaders; researchers working on the risks, benefits, and other impacts of a technology; funders; policymakers; regulators; NGOs and focus groups; and laypeople who will use or be affected by the development of a technology. In the case of technologies with a potential role in global catastrophic risk, the entire global population holds a stake. Therefore decisions with long-term consequences must not rest solely with a small group of people, represent only the values of a small subset of people, or fail to account for the likely impacts on the global population.

There have been a number of very encouraging specific examples of such foresight and collaboration, where scientific domain specialists, interdisciplinary experts, funders, and others have worked together to try to guide an emerging technology’s development, establish ethical norms and safety practices, and explore its potential uses and misuses in a scientifically rigorous way. In bioengineering, the famous 1975 Asilomar conference on recombinant DNA established important precedents, and more recently summits have been held on advances such as human gene editing. In artificial intelligence, a number of important conferences have been held recently, with enthusiastic participation from academic and industry research leaders in AI alongside interdisciplinary experts and policymakers. A number of the world’s leading AI research teams have established ethical advisory panels to inform and guide their scientific practices, and a cross-industry “partnership on AI to benefit people and society” involving five companies leading fundamental research has recently been announced.22

More broadly, it is crucial that we learn from the lessons of past technologies and, where possible, develop principles and methodologies that we can take forward. This may give us an advantage in preparing for developments that are currently beyond our horizon and that methodologies too deeply tied to specific technologies and risks may not allow. One of the key concerns associated with risks from emerging and future technologies is the rate at which progress occurs and at which the associated threats may arise. While every science will throw up specific challenges and require domain-specific techniques and expertise, any tools or methodologies that help us to intervene reliably earlier are to be welcomed. There may be a limited window of opportunity for averting such risks. Indeed, this window may occur in the early stages of developing a technology, well before the fully mature technology is out in the world, where it is difficult to control. Once Pandora’s box is open, it is very difficult to close.

WORKING ON THE (DOOMSDAY) CLOCK

Technological progress now offers us a vision of a remarkable future. The advances that have brought us onto an unsustainable pathway have also raised the quality of life dramatically for many, and have unlocked scientific directions that can lead us to a safer, cleaner, more sustainable world. With the right developments and applications of technology, in concert with advances in social, democratic, and distributional processes globally, progress can be made on all of the challenges discussed here. Advances in renewable energy and related technologies, and more efficient energy use—advances that are likely to be accelerated by progress in technologies such as artificial intelligence—can bring us to a point of zero-carbon emissions. New manufacturing capabilities provided by synthetic biology may provide cleaner ways of producing products and degrading waste. A greater scientific understanding of our natural world and the ecosystem services on which we rely will aid us in plotting a trajectory whereby critical environmental systems are maintained while allowing human flourishing. Even advances in education and women’s rights globally, which will play a role in achieving a stable global population, can be aided specifically by the information, coordination, and education tools that technology provides, and more generally by growing prosperity in the relevant parts of the world.

There are catastrophic and existential risks that we will simply not be able to overcome without advances in science and technology. These include possible pandemic outbreaks, whether natural or engineered. The early identification of incoming asteroids, and approaches to shift their path, is a topic of active research at NASA and elsewhere. While currently there are no known techniques to prevent or mitigate a supervolcanic eruption, this may not be the case with the tools at our disposal a century from now. And in the longer run, a civilization that has spread permanently beyond the earth, enabled by advances in spaceflight, manufacturing, robotics, and terraforming, is one that is much more likely to endure. However, the breathtaking power of the tools we are developing is not to be taken lightly. We have been very lucky to muddle through the advent of nuclear weapons without a global catastrophe. And within this century, it is realistic to expect that we will be able to rewrite much of biology to our purposes, intervene deliberately and in a large-scale way in the workings of our global climate, and even develop agents with intelligence that is fundamentally alien to ours, and may vastly surpass our own in some or even most domains—a development that would have uniquely unpredictable consequences.

It is reassuring to note that there are relatively few individual events that could cause an existential catastrophe—one resulting in extinction or a permanent civilizational collapse. Setting aside the very rare events (such as supervolcanoes and asteroids), the most plausible candidates include nuclear winter, extreme global warming or cooling scenarios, the accidental or deliberate release of an organism that radically altered the planet’s functioning, or the release of an engineered pathogen. They also include more speculative future advances: new types of weaponry, runaway artificial intelligence, or maybe physics experiments beyond what we can currently envisage. Many global risks are, in isolation, survivable—at least for some of us—and it is likely that human civilization could recover from them in the long run: less severe global warming, various environmental disasters and ecosystem collapses, widespread starvation, most pandemic outbreaks, conventional warfare (even global).

However, this latter class of risks, and factors that might drive them (such as population, resource use, and climate change) should not be ignored in the broader study of existential risk. Nor does it make sense to consider these challenges in isolation: in our interconnected world they all affect each other. The threat of global nuclear war has not gone away, and many scholars believe that it may be rising again (at the time of writing, North Korea has just undergone its most ambitious nuclear test to date). If climate pressures, drought, famine, and other resource pressures serve to escalate geopolitical tensions, or if the potential use of a new technology, such as geoengineering, could lead to a nuclear standoff, then the result is an existential threat. For all these reasons and more, a growing community of scholars across the world believe that the twenty-first century will see greater change and greater challenges than any century in humanity’s past history. It will be a century of unprecedented global pressures, and a century in which extreme and unpredictable events are likely to happen more frequently than ever before in the past. It will also be a century in which the power of technologies unlike any we have had in our past history will hang over us like multiple Damocles’ swords. But it will also be a century in which the technologies we develop, and the institutional structures we develop, may aid us in solving many of the problems we currently face—if we guide their development, and their uses and applications, carefully.

#### No limited nuclear wars – extinction.

Webber 19 – Dr Philip Webber has written widely on nuclear issues and is Chair of Scientists for Global Responsibility (SGR) – a membership organisation promoting responsible science and technology. We will all end up killing each other and one nuclear blast could do it. 5/18/19. [METRO.UK “We will all end up killing each other and one nuclear blast could do it,” <https://metro.co.uk/2019/05/18/we-will-all-end-up-killing-each-other-and-one-nuclear-blast-could-do-it-9370115/>] Recut Justin

The nuclear armed nations have inadvertently created a global Doomsday machine, built with 15,000 nuclear weapons.

Most (93%) have been built by Russia and in the US, 3,100 of them are ready to fire within hours.

Pre-programmed targets include main cities as well as a range of military and civilian targets across the world primarily in the UK, Europe, US, Russia and China but also in Japan, Australia and South America.

One nuclear blast, one mistake, one cyber attack could trigger it.

But first a reminder about the incredible destructive power of a nuclear weapon. Modern nuclear warheads are typically 20 times larger than either of the two bombs that obliterated Hiroshima and Nagasaki at the end of the Second World War. What just one nuclear warhead can do is unimaginable. We’ve drawn some of the key features to scale against cityscapes in the UK for a Russian SS-18 RS 20V (NATO designation ‘Satan’) 500kT warhead. US submarines deploy a similar weapon – the Trident II Mk5, 475kT warhead. A deafening, terrifying noise will be created, like an intense thunder that lasts for 10 seconds or longer.

After a blinding flash of light bright destroying the retina of anyone looking, and a violent electromagnetic pulse (EMP) knocking out electrical equipment several miles away, a bomb of this size quickly forms an incandescent fireball 850 metres across.

This is about the same height as the world’s tallest building, the Burj Khalifa. Drawn against the London Canary Wharf financial district or the Manchester skyline, the huge fireball dwarfs one Canary Sq. (240m), the South Tower Deansgate (201m) and the Beetham Tower Hilton, (170m). The fireball engulfs both city centres completely, melting glass and steel and forms an intensely radioactive 60m deep crater zone of molten earth and debris. A devastating supersonic blast wave flattens everything within a radius of two to three km, the entire Manchester centre, an area larger than the City of London, with lighter damage out to eight km. Most people in these areas would be killed or very seriously injured.

The fireball quickly rises forming an enormous characteristic mushroom shaped cloud raining highly radioactive particles (fallout). It rises to 60,000 ft (18,000m) – twice the altitude of Everest – and is 15 miles, 24km across.

This is one warhead. There are 10 such warheads on each of Russia’s 46 missiles (460 in total) and 48 on each of eight US Trident submarines (384 in total). In reality, in a nuclear conflict all of these warheads and a further 956 ready-to-fire are likely to be launched.

Whilst this scale of destruction is horrific and hundreds of millions of people would be killed in a few hours from a combination of blast, radiation and huge fires, there are also terrible longer-term effects.

Scientists predict that huge city-wide firestorms combined with very the high-altitude debris clouds would severely reduce sunlight levels and disrupt the world’s climate for a decade causing drought, a prolonged winter, global famine and catastrophic impacts for all life on earth and in the seas due to intense levels of UV with the destruction of the ozone layer.

But even at the level of a few hundred nuclear warheads, the consequences of a nuclear war would be extremely severe across the world far beyond the areas hit directly. A nuclear conflict between India and Pakistan with ‘only’ 100 small warheads would kill hundreds of millions and cause climate damage leading to a global famine. The sheer destructive nature of nuclear explosions combined with long lasting radiation, means that nuclear weapons are of no military use. ‘Enemy’ territory would be unusable for years because of intense radiation – especially when nuclear power stations and reprocessing plants are hit.

Even if your own country is not hit, radiation and climate damage will spread across the globe. No one escapes the consequences.

But the nuclear nations argue that they build and keep nuclear weapons to make sure that they are never used. After all no one would be stupid enough to actually launch a nuclear weapon facing such terrible retaliation? It sounds obvious. If you threaten any attacker with terrible nuclear devastation of course they won’t attack you. That might be true most of the time. It is very unlikely that any country would launch a nuclear attack deliberately. But there are two very major problems. First, a terrorist organisation with a nuclear weapon cannot be deterred in this way. Secondly, there are several ways in which a nuclear war can start by mistake. A report by the prestigious Chatham House in 2014 documents 30 instances between 1962 and 2002 when nuclear weapons came within minutes of being launched due to miscalculation, miscommunication, or technical errors. What prevented their use on many of these occasions was the intervention of individuals who, against military orders, either refused to authorise a nuclear strike or relay information that would have led to launch. Examples include a weather rocket launch mistaken for an attack on Russia, a US satellite misinterpreting sunlight reflecting off clouds as multiple missiles firings, a 42c chip fault creating a false warning of 220 missiles launched at the United States. Such risks are heightened during political crises.

The risk of mistake is very high because, in a hangover from the Cold War, the USA and Russia each keep 900 warheads ready to fire in a few minutes, in a ‘launch on warning’ status, should a warning of nuclear attack come in.

These nuclear weapons form a dangerous nuclear stand-off – rather like two people holding guns to each other’s heads.

With only a few minutes to evaluate a warning of nuclear attack before warheads would strike, one mistake can trigger disaster. A similar nuclear stand-off exists between India and Pakistan.

### 1AC – Framing

#### The standard is maximizing expected wellbeing.

#### Extinction outweighs:

#### A] Comes before value-to-life.

Tännsjö 11 (Torbjörn, the Kristian Claëson Professor of Practical Philosophy at Stockholm University, “Shalt Thou Sometimes Murder? On the Ethics of Killing,” <http://people.su.se/~jolso/HS-texter/shaltthou.pdf>) //BS 1-27-2018

\*\*Bracketed to avoid triggers

I suppose it is correct to say that, if Schopenhauer is right, if life is never worth living, then according to utilitarianism we should all [die] commit suicide and put an end to humanity. But this does not mean that, each of us should commit suicide. I commented on this in chapter two when I presented the idea that utilitarianism should be applied, not only to individual actions, but to collective actions as well.¶ It is a well-known fact that people rarely commit suicide. Some even claim that no one who is mentally sound commits suicide. Could that be taken as evidence for the claim that people live lives worth living? That would be rash. Many people are not utilitarians. They may avoid suicide because they believe that it is morally wrong to kill oneself. It is also a possibility that, even if people lead lives not worth living, they believe they do. And even if some may believe that their lives, up to now, have not been worth living, their future lives will be better. They may be mistaken about this. They may hold false expectations about the future.¶ From the point of view of evolutionary biology, it is natural to assume that people should rarely commit suicide. If we set old age to one side, it has poor survival value (of one’s genes) to kill oneself. So it should be expected that it is difficult for ordinary people to kill themselves. But then theories about cognitive dissonance, known from psychology, should warn us that we may come to believe that we live better lives than we do.¶ My strong belief is that most of us live lives worth living. However, I do believe that our lives are close to the point where they stop being worth living. But then it is at least not very far-fetched to think that they may be worth not living, after all. My assessment may be too optimistic.¶ Let us just for the sake of the argument assume that our lives are not worth living, and let us accept that, if this is so, we should all kill ourselves. As I noted above, this does not answer the question what we should do, each one of us. My conjecture is that we should not [die] commit suicide. The explanation is simple. If I [die] kill myself, many people will suffer. Here is a rough explanation of how this will happen: ¶ ... suicide “survivors” confront a complex array of feelings. Various forms of guilt are quite common, such as that arising from (a) the belief that one contributed to the suicidal person's anguish, or (b) the failure to recognize that anguish, or (c) the inability to prevent the suicidal act itself. Suicide also leads to rage, loneliness, and awareness of vulnerability in those left behind. Indeed, the sense that suicide is an essentially selfish act dominates many popular perceptions of suicide. ¶ The fact that all our lives lack meaning, if they do, does not mean that others will follow my example. They will go on with their lives and their false expectations — at least for a while devastated because of my suicide. But then I have an obligation, for their sake, to go on with my life. It is highly likely that, by committing suicide, I create more suffering (in their lives) than I avoid (in my life).

#### B] Mathemathically comes first

MacAskill 14 [William, Oxford Philosopher and youngest tenured philosopher in the world, Normative Uncertainty, 2014]

The human race might go extinct from a number of causes: asteroids, supervolcanoes, runaway climate change, pandemics, nuclear war, and the development and use of dangerous new technologies such as synthetic biology, all pose risks (even if very small) to the continued survival of the human race.184 And different moral views give opposing answers to question of whether this would be a good or a bad thing. It might seem obvious that human extinction would be a very bad thing, both because of the loss of potential future lives, and because of the loss of the scientific and artistic progress that we would make in the future. But the issue is at least unclear. The continuation of the human race would be a mixed bag: inevitably, it would involve both upsides and downsides. And if one regards it as much more important to avoid bad things happening than to promote good things happening then one could plausibly regard human extinction as a good thing.For example, one might regard the prevention of bads as being in general more important that the promotion of goods, as defended historically by G. E. Moore,185 and more recently by Thomas Hurka.186 One could weight the prevention of suffering as being much more important that the promotion of happiness. Or one could weight the prevention of objective bads, such as war and genocide, as being much more important than the promotion of objective goods, such as scientific and artistic progress. If the human race continues its future will inevitably involve suffering as well as happiness, and objective bads as well as objective goods. So, if one weights the bads sufficiently heavily against the goods, or if one is sufficiently pessimistic about humanity’s ability to achieve good outcomes, then one will regard human extinction as a good thing.187 However, even if we believe in a moral view according to which human extinction would be a good thing, we still have strong reason to prevent near-term human extinction. To see this, we must note three points. First, we should note that the extinction of the human race is an extremely high stakes moral issue. Humanity could be around for a very long time: if humans survive as long as the median mammal species, we will last another two million years. On this estimate, the number of humans in existence in the The future, given that we don’t go extinct any time soon, would be 2×10^14. So if it is good to bring new people into existence, then it’s very good to prevent human extinction. Second, human extinction is by its nature an irreversible scenario. If we continue to exist, then we always have the option of letting ourselves go extinct in the future (or, perhaps more realistically, of considerably reducing population size). But if we go extinct, then we can’t magically bring ourselves back into existence at a later date. Third, we should expect ourselves to progress, morally, over the next few centuries, as we have progressed in the past. So we should expect that in a few centuries’ time we will have better evidence about how to evaluate human extinction than we currently have. Given these three factors, it would be better to prevent the near-term extinction of the human race, even if we thought that the extinction of the human race would actually be a very good thing. To make this concrete, I’ll give the following simple but illustrative model. Suppose that we have 0.8 credence that it is a bad thing to produce new people, and 0.2 certain that it’s a good thing to produce new people; and the degree to which it is good to produce new people, if it is good, is the same as the degree to which it is bad to produce new people, if it is bad. That is, I’m supposing, for simplicity, that we know that one new life has one unit of value; we just don’t know whether that unit is positive or negative. And let’s use our estimate of 2×10^14 people who would exist in the future, if we avoid near-term human extinction. Given our stipulated credences, the expected benefit of letting the human race go extinct now would be (.8-.2)×(2×10^14) = 1.2×(10^14). Suppose that, if we let the human race continue and did research for 300 years, we would know for certain whether or not additional people are of positive or negative value. If so, then with the credences above we should think it 80% likely that we will find out that it is a bad thing to produce new people, and 20% likely that we will find out that it’s a good thing to produce new people. So there’s an 80% chance of a loss of 3×(10^10) (because of the delay of letting the human race go extinct), the expected value of which is 2.4×(10^10). But there’s also a 20% chance of a gain of 2×(10^14), the expected value of which is 4×(10^13). That is, in expected value terms, the cost of waiting for a few hundred years is vanishingly small compared with the benefit of keeping one’s options open while one gains new information.

### 1AC – Method

#### 1] Fake news mobilizes echo-chambers of prejudice that enable violent racism.

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It seems that each day there is a new [fake news](https://www.psychologytoday.com/us/basics/false-memories) story circulating on social media. This is problematic considering that 68 percent of American adults report that they at least occasionally get their news from social media. [Reddit, Twitter, Facebook, and YouTube](https://www.journalism.org/2018/09/10/news-use-across-social-media-platforms-2018/) are the top social media platforms from which consumers obtain news information. At the time of this writing, examining the [Hot 50 from snopes.com](https://www.snopes.com/50-hottest-urban-legends/) shows that almost 20% of the top rumors being checked on [snopes.com](https://www.snopes.com/) are based on bias, stereotypes, and [prejudice](https://www.psychologytoday.com/us/basics/bias). The remaining rumors, or false news reports, are related to either [COVID-19](https://www.psychologytoday.com/us/basics/coronavirus-disease-2019) or [politics](https://www.psychologytoday.com/us/basics/politics). Even so, as with many fake news stories, the line between political posts, COVID-19 related posts, and prejudicial posts is rather thin. This may be related to the [political shift](https://www.theroot.com/how-the-republican-party-became-the-party-of-racism-1827779221) between the two major parties that has slowly occurred over the years. There are specific consumer characteristics and sociodemographic factors that may make consumers more susceptible to believing fake news. These include coming from a lower social class background or having a lower SES, having a conservative ideology, having higher levels of right-wing authoritarianism, and being White, male, and older ([Wright et al., 2019](https://www.tandfonline.com/doi/abs/10.1080/10646175.2019.1649762?journalCode=uhjc20); Wright et al., in press; Wright & Duong, under review). It appears as though believing fake news amplifies higher levels of right-wing authoritarianism and [xenophobia](https://www.psychologytoday.com/us/basics/fear) that these consumers already have (Wright & Duong, under review), increasing the likelihood that exposure to fake news would have an impact on consumer attitudes and behaviors. These are the same consumer characteristics and sociodemographic factors that are associated with holding negative and intolerant attitudes toward minority groups that have been identified in numerous research studies ([Berg, 2009](https://journals.sagepub.com/doi/10.1525/sop.2009.52.1.39); [Fryberg et al., 2012](https://spssi.onlinelibrary.wiley.com/doi/abs/10.1111/j.1530-2415.2011.01259.x); [McKeever et al., 2012](https://www.tandfonline.com/doi/abs/10.1080/1041794X.2012.691602?journalCode=rsjc20); [Ostfeld, 2017](https://onlinelibrary.wiley.com/doi/abs/10.1111/pops.12314); [Schemer, 2012](https://psycnet.apa.org/record/2012-27444-003); [Timberlake & Williams, 2012](https://www.jstor.org/stable/42864104?seq=1); [Valentino et al., 2013](https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-9221.2012.00928.x); [Watson & Riffe, 2013](https://academic.oup.com/ijpor/article-abstract/25/4/459/728366?redirectedFrom=fulltext)). Prejudiced fake news has the intent of validating and encouraging discriminatory and racist opinions toward out-group members ([Cerase & Santoro, 2018](https://www.jstor.org/stable/j.ctt21215m0.20?seq=1#metadata_info_tab_contents); [Wright et al., 2019](https://www.tandfonline.com/doi/abs/10.1080/10646175.2019.1649762?journalCode=uhjc20)). This type of fake news is not only sensational, for shock value, but also provides stereotypical, biased, and prejudicial falsehoods ([Wright et al., 2019](https://www.tandfonline.com/doi/abs/10.1080/10646175.2019.1649762?journalCode=uhjc20); Wright et al., in press). Exposure to prejudiced fake news has been related to a lower likelihood of viewing immigration as a benefit and an increased likelihood of viewing it as a threat as well as holding intolerant attitudes toward immigrants and foreigners. Prejudiced fake news has also been associated with consumers reporting increased levels of Islamophobia ([Wright et al., 2019](https://www.tandfonline.com/doi/abs/10.1080/10646175.2019.1649762?journalCode=uhjc20); Wright et al., in press). More recently, with fake news related to COVID-19, consumers have reported higher levels of xenophobia and prejudicial attitudes toward Asian Americans (Wright & Duong, under review). Dylann Roof is a not-so-distant example of how exposure to fake news can impact the actual behavior of consumers, highlighting how attitudes can lead to engaging in real-life behaviors. What happened with [Dylann Roof](https://www.charlestoncitypaper.com/charleston/fake-news-and-the-miseducation-of-dylann-roof/Content?oid=6414760) demonstrates the dangerous nature of today’s fake news and the deadly consequences it can have. Dylann Roof engulfed himself with online racist fake news, amplifying his already existing prejudiced world views. This left him in an [echo chamber](https://www.kqed.org/news/11703717/how-social-media-echo-chambers-drown-out-the-voices-in-the-middle) surrounded by false information and conspiracy theories that led to [confirmation bias](https://www.psychologytoday.com/us/blog/science-choice/201504/what-is-confirmation-bias) and a drastic [polarization](https://www.pnas.org/content/115/37/9216) of his views. This [ended](https://theundefeated.com/features/how-fake-news-led-to-dylann-roof-to-murder-nine-people/) with him entering a church and murdering nine innocent people. Today’s racist fake news is just as bad, if not worse. From false claims that members of the Black Lives Matter (BLM) movement doused two white men with [gasoline](https://www.snopes.com/?s=Two+White+Men+Doused+with+Gasoline%2C+Set+on+Fire+by+BLM) to false claims that members of BLM are [assaulting](https://www.snopes.com/fact-check/attempted-robbery-target-field/) bystanders and false claims of a BLM flyer labeling white people as the [enemy](https://www.snopes.com/fact-check/blm-flyer-enemy-of-people/), the list just goes on and on. At this point, it seems endless. In addition to fake news posts on social media, there are several U.S. based [websites](https://www.stopfundingfakenews.com/defund-racism) that are spreading racist fake news. The stories on these websites are very similar to the fake news posts often found on social media. Some claim that BLM is an “anti-police hate group,” a money-laundering tool for the Democratic National Committee, and even strongly advise consumers to purchase firearms and “plenty of ammo” to protect themselves against BLM. These racist fake news stories are more than false. They are dangerous and could very well, in today’s uneasy and [stressful](https://www.psychologytoday.com/us/basics/stress) climate riffed by politics and COVID-19, lead to more Dylann Roofs.

#### 2] Extinction isn’t white paranoia and apocalyptic reps are good

Thompson 18 [Nicole Akoukou. Chicago-based creative writer. 4-6-2018. "Why I will not allow the fear of a nuclear attack to be white-washed." RaceBaitR. http://racebaitr.com/2018/04/06/2087/#]

I couldn’t spare empathy for a white woman whose biggest fear was something that hadn’t happened yet and might not. Meanwhile, my most significant fears were in motion: women and men dying in cells after being wrongly imprisoned, choked out for peddling cigarettes, or shot to death during ‘routine’ traffic stops. I twitch when my partner is late, worried that a cantankerous cop has brutalized or shot him because he wouldn’t prostrate himself. As a woman of color, I am aware of the multiple types of violence that threaten me currently—not theoretically. Street harassment, excessively affecting me as a Black woman, has blindsided me since I was eleven. A premature body meant being catcalled before I’d discussed the birds and the bees. It meant being followed, whistled at, or groped. As an adult, while navigating through neighborhoods with extinguished street lights, I noticed the correlation between women’s safety and street lighting—as well as the fact that Black and brown neighborhoods were never as brightly lit as those with a more significant white population. I move quickly through those unlit spaces, never comforted by the inevitable whirl of red and blue sirens. In fact, it’s always been the contrary. Ever so often, cops approach me in their vehicle’s encouraging me to “Hurry along,” “Stay on the sidewalk,” or “Have a good night.” My spine stiffening, I never believed they endorsed my safety. Instead, I worried that I’d be accused of an unnamed accusation, corned by a cop who preys on Black women, or worse. A majority of my 50-minute bus ride from the southside of Chicago to the north to join these women for the birthday celebration was spent reading articles about citywide shootings. I began with a Chicago Tribute piece titled “33 people shot, seven fatally, in 13 hours,” then toppled into a barrage of RIP posts on Facebook and ended with angry posts about police brutality on Tumblr. You might guess, by the time I arrived to dinner I wasn’t in the mood for the “I can’t believe we’re all going to die because Trump is an idiot” shit. I shook my head, willing the meal to be over, and was grateful when the check arrived just as someone was asking me about my hair. My thinking wasn’t all too different from Michael Harriot’s ‘Why Black America Isn’t Worried About the Upcoming Nuclear Holocaust.” While the meal was partly pleasant, I departed thinking, “fear of nuclear demolition is just some white shit.” Sadly, that thought would not last long. I still vibe with Harriot’s statement, “Black people have lived under the specter of having our existence erased on a white man’s whim since we stepped onto the shore at Jamestown Landing.” However, a friend—a Black friend—ignited my nuclear paranoia by sharing theories about when it might happen and who faced the greatest threat. In an attempt to ease my friend’s fear, I leaned in to listen but accidentally toppled down the rabbit hole too. I forked through curated news feeds. I sifted through “fake news,” “actual news,” and foreign news sources. Suddenly, an idea took root: nuclear strike would disproportionately impact Black people, brown people, and low-income individuals. North Korea won’t target the plain sight racists of Portland, Oregon, the violently microaggressive liberals of the rural Northwest, or the white-hooded klansmen of Diamondhead, Mississippi. No, under the instruction of the supreme leader Kim Jong-un, North Korea will likely strike densely populated urban areas, such as Los Angeles, Chicago, Washington D.C., and New York City. These locations stand-out as targets for a nuclear strike because they are densely populated U.S. population centers. Attacking the heart of the nation or populous cities would translate to more casualties. With that in mind, it’s not lost on me that the most populous cities in the United States boast sizeable diverse populations, or more plainly put: Black populations. This shit stresses me out! There’s a creeping chill that follows me, a silent alarm that rings each time my Google alert chimes letting me know that Donald Trump has yet again provoked Kim Jong-Un, a man who allegedly killed his very own uncle. I’ve grown so pressed by the idea of nuclear holocaust that my partner and I started gathering non-perishables, candlesticks, a hand-crank radio, and other must-buy items that can be banked in a shopping cart. The practice of preparing for a nuclear holocaust sometimes feels comical, particularly when acknowledging that there has long been a war on Black people in this country. Blackness is bittersweet in flavor. We are blessed with the melanized skin, the MacGyver-like inventiveness of our foremothers, and our blinding brightness—but the anti-blackness that we experience is also blinding as well as stifling. We are stuck by rigged systems, punished with the prison industrial complex, housing discrimination, pay discrimination, and worse. We get side-eyes from strangers when we’re “loitering,” and the police will pull us over for driving “too fast” in a residential neighborhood. We get murdered for holding cell phones while standing in our grandmother’s backyard. The racism that strung up our ancestors, kept them sequestered to the back of the bus and kept them in separate and unequal schools still lives. It lives, and it’s more palpable than dormant. To me, this means one thing: Trump’s America isn’t an unfortunate circumstance, it’s a homecoming event that’s hundreds of years in the making, no matter how many times my white friends’ say, “He’s not my president.” In light of this homecoming, we now flirt with a new, larger fear of a Black genocide. America has always worked towards Black eradication through a steady stream of life-threatening inequality, but nuclear war on American soil would be swift. And for this reason I’ve grown tired of whiteness being at the center of the nuclear conversation. The race-neutral approach to the dialogue, and a tendency to continue to promote the idea that missiles will land in suburban and rural backyards, instead of inner-city playgrounds, is false. “The Day After,” the iconic, highest-rated television film in history, aired November 20, 1983. More than 100 million people tuned in to watch a film postulating a war between the Soviet Union and the United States. The film, which would go on to affect President Ronald Reagan and policymakers’ nuclear intentions, shows the “true effects of nuclear war on average American citizens.” The Soviet-targeted areas featured in the film include Higginsville, Kansas City, Sedalia, Missouri, as well as El Dorado Springs, Missouri. They depict the destruction of the central United States, and viewers watch as full-scale nuclear war transforms middle America into a burned wasteland. Yet unsurprisingly, the devastation from the attack is completely white-washed, leaving out the more likely victims which are the more densely populated (Black) areas. Death tolls would be high for white populations, yes, but large-scale losses of Black and brown folks would outpace that number, due to placement and poverty. That number would be pushed higher by limited access to premium health care, wealth, and resources. The effects of radiation sickness, burns, compounded injuries, and malnutrition would throttle Black and brown communities and would mark us for generations. It’s for that reason that we have to do more to foster disaster preparedness among Black people where we can. Black people deserve the space to explore nuclear unease, even if we have competing threats, anxieties, and worries. Jacqui Patterson, Director of the Environmental and Climate Justice Initiative, once stated: African American communities are disproportionately vulnerable to and impacted by natural (and unnatural) catastrophes. Our socio-economic vulnerability is based on multiple factors including our lack of wealth to cushion us, our disproportionate representation in lower quality housing stock, and our relative lack of mobility, etc.