# 1

#### Our Interpretation is the affirmative should instrumentally defend the resolution – hold the line, CX and the 1AC prove there’s no I-meet – anything new in the 1AR is either extra-T since it includes the non-topical parts of the Aff or effects-T since it’s a future result of the advocacy which both link to our offense.

#### “Resolved” means to enact by law.

Words & Phrases ’64

(Words and Phrases; 1964; Permanent Edition)

Definition of the word “resolve,” given by Webster is “to express an opinion or determination by resolution or vote; as ‘it was resolved by the legislature;” It is of similar force to the word “enact,” which is defined by Bouvier as meaning “to establish by law”.

#### [3] Standards to Prefer:

#### First - Fairness – radically re-contextualizing the resolution lets them defend any method tangentially related to the topic exploding Limits, which erases neg ground via perms and renders research burdens untenable by eviscerating predictable limits. Procedural questions come first – debate is a game and it makes no sense to skew a competitive activity as it requires effective negation which incentivizes argument refinement, but skewed burdens deck pedagogical engagement.

#### Second - Implementation Education – Nitty gritty debates about Impelmentation Education are key to actualize revolutionary movements – the Aff’s model aligns w/ liberal leftist politics of complacency that criticizes but never actualizes.

Chandler 10 (David Chandler is Professor of International Relations at the Department of Politics and International Relations, University of Westminster – This card internally quotes Jodi Dean, Professor of Political Science at Hobart and William Smith Colleges, 'No Communicating Left' (review article), Radical Philosophy, No. 160 (March/April 2010), pp.53-55. ISSN 0300 211X) //Elmer  
Dean pulls few punches in her devastating critique of the American left for its complacency, its limited capacity, and even its lack of awareness of the need to offer a stand of political resistance to power. This is how she concludes her book: The eight years of the Bush administration were a diversion. Intoxicated with a sense of purpose, we could oppose war, torture, indefinite detention, warrantless wiretapping, a seemingly endless series of real crimes… such opposition keeps us feeling like we matter… We have an ethical sense. But **we lack a coherent politics**. (p.175) Dean highlights clearly the disintegration of the collective left and its simulacra in the individuated life-style politics of today’s depoliticized radicalism, where it appears that particular individual demands and identities are to be respected but there is no possibility of universalising them into a collective challenge to the system: no possibility of a left which stands for something beyond itself. She argues that, rather than confront this problem, the left take refuge in the fantasy that technology will overcome their inability to engage and that the circulation of ideas and information on the internet will construct the collectivities and communities of interest, which are lacking in reality. For Dean, this ‘technology fetishism’ marks the left’s failure: its ‘abandonment of workers and the poor; its retreat from the state and repudiation of collective action; and its acceptance of the neoliberal economy as the “only game in town”’ (p.33). In fact, she uncovers the gaping hole at the heart of the left, highlighting that radicalism appears to be based less on changing the world than on the articulation of an alternative oppositionalist identity: a non-strategic, non-instrumental, articulation of a protest against power. In a nutshell, the left are too busy providing alternative voices, spaces and forums to think about engaging with mass society in an organised, collective, attempt to achieve societal transformation. For Dean, this is fake or hollow political activity, pursued more for its own sake than for future political ends. This is a politics of ethical distancing, of selfflattery and narcissism, which excuses or even celebrates the self-marginalization of the left: as either the result of the overwhelming capacity of neoliberal power to act, to control, and to regulate; or as the result of the apathy, stupidity, or laziness of the masses - or the ‘sheeple’ (p.171) - for their failure to join the radical cause. Dean suggests that the left needs to rethink its values and approaches and her book is intended to be a wake-up call to abandon narcissistic complacency. In doing this, she highlights a range of problems connected around the thematic of the left’s defence of democracy in an age of communicative capitalism. She argues that the left’s focus on extending or defending democracy by asserting their role in giving voice and creating spaces merely reproduces the domination of communicative capitalism, where there is no shared space of debate and disagreement but the proliferation of mediums and messages without the responsibility to develop and defend positions or to engage and no external measure of accountability. Communicative capitalism is held to thrive on this fragmented, atomizing, and individuated, framework of communication, which gives the impression of a shared discourse, community, or movement but leaves reality just as it is, with neoliberal frameworks of domination, inequality, and destruction continuing unopposed (pp.162-75).

#### Third – SSD – their model that allows them to side-step the topic on both the Aff and Neg hurts debate as a site of role experimentation – choosing to individually engage both sides solves argument refinement and self-reflexivity breeding constantly evolving methodology which is key to activist resistance BUT side-stepping it ingrains ideological dogmatism by imposing artificial lines in the sand for what not to experiment replicating imperial ideologies about exclusion.

Mitchell et Al 7, Mitchell, Gordon, et al. "Debate as a weapon of mass destruction." Communication and Critical/Cultural Studies 4.2 (2007): 221-225. (Professor of Communication at the University of Pittsburgh)//Elmer

Second, while the pedagogical benefits of **switch-side debating for participants are compelling**,10 some worry that the technique may perversely and unwittingly serve the ends of an aggressively militaristic foreign policy. In the context of the 1954 controversy, Ronald Walter Greene and Darrin Hicks suggest that the articulation of the debate community as a zone of dissent against McCarthyist tendencies developed into a larger and somewhat uncritical affirmation of switch-side debate as a ‘‘technology’’ of liberal participatory democracy. This technology is part and parcel of the post-McCarthy ethical citizen, prepared to discuss issues from multiple viewpoints. The problem for Greene and Hicks is that this notion of citizenship becomes tied to a normative conception of American democracy that justifies imperialism. They write, ‘‘The production and management of this field of governance allows liberalism to trade in cultural technologies in the global cosmopolitan marketplace at the same time as it creates a field of intervention to transform and change the world one subject (regime) at a time.’’11 Here, Greene and Hicks argue that this new conception of liberal governance, which epitomizes the ethical citizen as an individual trained in the switch-side technique, serves as a normative tool for judging other polities and justifying forcible regime change. One need look only to the Bush administration’s framing of war as an instrument of democracy promotion to grasp how the switch-side technique can be appropriated as a justification for violence. It is our position, however, that rather than acting as a cultural technology expanding American exceptionalism, switch-side debating originates from a civic attitude that serves as a bulwark against fundamentalism of all stripes. Several prominent voices reshaping the national dialogue on homeland security have come from the academic debate community and draw on its animating **spirit of critical inquiry**. For example, Georgetown University law professor **Neal Katyal** served as lead plaintiff’s counsel in Hamdan, which **challenged post-9/11 enemy combat definitions**. 12 The foundation for Katyal’s winning argument in Hamdan was laid some four years before, when he collaborated with former intercollegiate debate champion Laurence Tribe on an influential Yale Law Journal addressing a similar topic.13 Tribe won the National Debate Tournament in 1961 while competing as an undergraduate debater for Harvard University. Thirty years later, Katyal represented Dartmouth College at the same tournament and finished third. The imprint of this debate training is evident in Tribe and Katyal’s contemporary public interventions, which are characterized by meticulous research, sound argumentation, and a staunch commitment to democratic principles. Katyal’s reflection on his early days of debating at Loyola High School in Chicago’s North Shore provides a vivid illustration. ‘‘I came in as a shy freshman with dreams of going to medical school. Then Loyola’s debate team opened my eyes to a different world: one of argumentation and policy.’’ As Katyal recounts, ‘‘the most important preparation for my career came from my experiences as a member of Loyola’s debate team.’’14 The success of former debaters like Katyal, Tribe, and others in challenging the dominant dialogue on homeland security points to the efficacy of academic debate as a training ground for future advocates of progressive change. Moreover, a robust understanding of the switch-side technique and the classical liberalism which underpins it would help prevent misappropriation of the technique to bolster suspect homeland security policies. For buried within an inner-city debater’s files is a secret **threat to absolutism**: the refusal to be classified as ‘‘**with us or against us**,’’ the **embracing of intellectual experimentation** in an age of orthodoxy, **and reflexivity** in the face of fundamentalism. But by now, the irony of our story should be apparent\***the more effectively academic debating practice can be focused toward these ends, the greater the proclivity of McCarthy’s ideological heirs to brand the activity as a ‘‘weapon of mass destruction**.’’ immediately tyrannical, far more immediately damaging to either liberal or participatory democracy, than the ritualized requirements that students occasionally take the opposite side of what they believe. Third, as I have suggested and will continue to suggest, while a debate project requiring participants to understand and often "speak for" opposing points of view may carry a great deal of liberal baggage, it is at its core a project more ethically deliberative than institutionally liberal. Where Hicks and Greene see debate producing "the liberal citizen-subject," I see debate at least having the potential to produce "the deliberative human being." The fact that some academic debaters are recruited by the CSIS and the CIA does not undermine this thesis. Absent healthy debate programs, these think-tanks and **government agencies would still recruit** what they saw as the best and brightest students. And absent a debate community that rewards anti-institutional political rhetoric as much as liberal rhetoric, those students would have little-to-no chance of being exposed to truly **oppositional ideas.** Moreover, if we allow ourselves to believe that it is "culturally imperialist" to help other peoples build institutions of debate and deliberation, we not only **ignore living political struggles t**hat occur in every culture, **but we fall victim to a dangerous ethnocentrism** in holding that "they do not value deliberation like we do." If the argument is that our participation in fostering debate communities abroad greases the wheels of globalization, the correct response, in debate terminology, is that such globalization is non-unique, inevitable, and there is only a risk that collaborating across cultures in public debate and deliberation will foster resistance to domination—just as debate accomplishes wherever it goes. Indeed, Andy Wallace, in a recent article, suggests that Islamic fundamentalism is a byproduct of the colonization of the lifeworld of the Middle East; if this is true, then one solution would be to foster cross-cultural deliberation among people on both sides of the cultural divide willing to question their own preconceptions of the social good. Hicks and Greene might be correct insofar as elites in various cultures can either forbid or reappropriate deliberation, but for those outside of that institutional power, **democratic discussion would have a positively subversive effect**.

#### TVA – [Affirm a COVID Waiver to solve Vaccine Imperialism]

#### TVA is terminal defense – proves our models aren’t mutually exclusive - any response to the substance of the TVA is offense for us because it proves our model allows for clear contestation. Form over Content doesn’t take it out since we don’t restrict Form, just the substantive burden of the Aff.

#### Prefer Competing Interpretations – reasonability is arbitrary and causes a race to the bottom. This means reject Aff Impact Turns predicated on their theory since we weren’t able to adequately prepare for it.

# 2

#### Text – The inhuman ought to reduce Intellectual Property Protections on all medicines except for [medicines related to Tuberculosis].

#### Intellectual Property is key to eliminate Tuberculosis – IP ecosystems independently cause Private-Public Partnerships related to Tuberculosis which solves their Turns.

Kilbridge 3-23 Patrick Kilbridge 3-23-2021 "IP to Beat TB: How Efforts to Curb Tuberculosis Are Being Fueled by a Collaborative IP Ecosystem" <https://www.ipwatchdog.com/2021/03/23/ip-beat-tb-efforts-curb-tuberculosis-fueled-collaborative-ip-ecosystem/id=131184/> (vice president of international intellectual property for the Global Intellectual Property Center (GIPC) at the U.S. Chamber of Commerce. Kilbride oversees the center’s multilateral and international programs promoting the protection and enforcement of intellectual property (IP) rights, managing a team of country and regional experts. Previously, Kilbride was Executive Director, Americas Strategic Policy Initiatives, and Executive Vice President, Association of American Chambers of Commerce in Latin America (AACCLA), within the Chamber’s International Division. Prior to joining the U.S. Chamber, Kilbride was appointed to serve in the Bush administration as deputy assistant U.S. Trade Representative (USTR) for Intergovernmental Affairs & Public Liaison.)//Elmer

“**Any** true **breakthrough** **in** the **fight against TB** won’t **come from** **a single research team alone**. If there’s anything that the COVID-19 pandemic has taught us, it’s that **innovation is an ecosystem**.” One would think it was ripped from today’s headlines: a deadly respiratory disease sweeps across the world—**killing one person every 22 seconds**. But this disease is not COVID-19. The threat is tuberculosis (or TB), which has flourished for centuries thanks to the ability of the bacteria that cause the disease (Mycobacterium tuberculosis) to quickly spread from person to person through the air that we breathe. Even though treatments exist, TB can easily become a chronic or fatal condition if left unchecked. According to the World Health Organization (WHO), in 2019, 10 million people became ill with TB, and **1.4 million people** **lost their lives to the disease**—a serious, even **silent pandemic** that is **deadlier than HIV.** A Persistent Problem Requires a New Approach Now, thanks to the COVID-19 pandemic, public health concerns have become top of mind. At the same time, however, COVID-19 has caused significant disruptions to TB services that threaten the hard-won gains the international community has made in combatting TB in recent years. **Without sustained action** against TB—both during and after the COVID-19 pandemic—the **disease** **will continue to spread**, with **disproportionate** **effects on poorer** **and developing countries**. In 2019, for instance, India, Indonesia, China, the Philippines, Pakistan, Nigeria, Bangladesh, and South Africa put together accounted for two-thirds of that year’s new TB cases. The location of new cases is particularly troubling given co-infections in people living with HIV. In addition to emphasizing the need for universal access to existing tools and services, WHO has adopted a new global TB strategy that calls on stakeholders to accelerate research and innovation to improve disease prevention, diagnosis, and treatment. The **rise of resistance** to current antibiotics **underscores** the **need for novel tools** to win the war against TB. This makes the research of Drs. Clif Barry and Helena Boshoff of the National Institutes of Health (NIH) even more critical. Infectious disease researchers by training, the pair have spent years studying how TB bacteria survive inside, and then kill, human immune cells, thus preventing the body from fighting off the infection. They are also experts in the mechanisms by which TB bacteria develop resistance to the antibiotics used to treat the disease. Even though multidrug-resistant TB (or rifampicin-resistant tuberculosis; MDR/RR-TB) currently affects 550,000 people, antibiotic resistance was identified by the U.S. Centers for Disease Control and Prevention as a looming threat. To address the problems of immune system destruction and antibiotic resistance, the NIH researchers created a strategy for developing a new drug with a mode of action different from that of current medications—a drug that destroys the TB bacteria within the immune cells before they can damage the cells. Such a drug could potentially be a safe and effective treatment for MDR/RR-TB. Public-Private Collaboration Provides a Map But any true breakthrough in the fight against TB won’t come from a single research team alone. If there’s anything that the COVID-19 pandemic has taught us, it’s that innovation is an ecosystem. Addressing **global health challenges**, then, **require an “all-of-society” approach** to leverage global know-how and investment. Helping to connect the dots is the WIPO Re:Search Consortium. The Consortium was founded in 2011 by BIO Ventures for Global Health (BVGH), the World Intellectual Property Organization (WIPO), and leading **pharmaceutical companies** around a common vision: to proactively **share** **industry i**ntellectual **p**roperty **assets** and expertise **to catalyze** the **discovery and development** of new treatments for TB and other infectious diseases that collectively affect more than one in five people worldwide. BVGH, a non-profit that supports critical research and advises governments on public health initiatives, and WIPO, a specialized agency of the United Nations and the global forum for intellectual property services, policy, information, and cooperation, co-lead the Consortium. To date, **WIPO Re:Search** has **convened** **154 private sector and academic** (including non-profit and government) **members** in 45 countries **to advance research** on neglected infectious diseases. Through collaboration and the **strategic use of i**ntellectual **p**roperty, the Consortium has **spurred breakthroughs for malaria**, Chagas disease, leishmaniasis, human African trypanosomiasis, schistosomiasis, **dengue fever**, and others. Even before the COVID-19 pandemic, **collaborations** **between the public and private sectors on** scientific research and **drug development were common**. Public tax dollars, for instance, fund basic, preclinical, and clinical research while the private sector takes care of highly specialized research, testing, and manufacturing of drug candidates. In this case, BVGH connected the NIH researchers with Johnson & Johnson’s Jump-stARter library—the company’s initiative to develop individual compounds for workable and safe medicines. This WIPO Re:Search ‘match’ proved fruitful, as Drs. Barry and Boshoff found several compounds within the library that killed TB bacteria without harming human immune cells. Using those data, along with the results of ongoing studies of structurally similar compounds, Johnson & Johnson will chemically optimize the most active compounds. The partners will then validate the resultant lead candidates in laboratory and preclinical studies. **We Won’t Beat TB Without IP** Intellectual property has been **key to delivering multiple vaccines and treatments** for the current global pandemic—and it will be key **to stopping TB in its tracks**. But in a vast, global innovation ecosystem, it helps to have a map. That’s why initiatives like WIPO Re:Search and the work of organizations like BVGH are indispensable to greater coordination of global R&D. And though we are far away from beating TB for good, we’ll keep an eye out for the headlines.

#### Algorithms are key to Tuberculosis Treatments

Mandavilli 20 Apoorva Mandavilli 11-20-2020 "These Algorithms Could Bring an End to the World's Deadliest Killer" <https://archive.is/8LTJn#selection-1019.0-1068.0> (Apoorva Mandavilli is a reporter for The New York Times, focusing on science and global health. She is the 2019 winner of the Victor Cohn Prize for Excellence in Medical Science Reporting.)//Elmer

In some of the most remote and impoverished corners of the world, where respiratory illnesses abound and trained medical professionals fear to tread, diagnosis is increasingly powered by artificial intelligence and the internet. In less than a minute, a new app on a phone or a computer can scan an X-ray for signs of tuberculosis, Covid-19 and 27 other conditions. TB, the most deadly infectious disease in the world, claimed nearly 1.4 million lives last year. The app, called qXR, is one of many A.I.-based tools that have emerged over the past few years for screening and diagnosing TB. The tools offer hope of flagging the disease early and cutting the cost of unnecessary lab tests. Used at large scale, they may also spot emerging clusters of disease. “Among all of the applications of A.I., I think digitally interpreting an image using an algorithm instead of a human radiologist is probably furthest along,” said Madhukar Pai, the director of the McGill International TB Center in Montreal. Artificial intelligence cannot replace clinicians, Dr. Pai and other experts cautioned. But the combination of A.I. and clinical expertise is proving to be powerful. “The machine plus clinician is better than the clinician, and it’s also better than machine alone,” said Dr. Eric Topol, the director of the Scripps Research Translational Institute in San Diego and the author of a book on the use of A.I. in medicine. In India, where roughly one-quarter of the world’s TB cases occur, an app that can flag the disease in remote locations is urgently needed. The Chinchpada Christian Hospital in Nandurbar, a small town in northwest India, serves members of the Bhil tribal community, some of whom travel up to 125 miles to visit the center. The 50-bed hospital has eight doctors, and only the most rudimentary medical equipment. Clear across the country, Simdega, one of the 20 poorest districts in India, is isolated from the nearest town, Rourkela, by nearly five hours of travel on bumpy roads. The tribal population in the district lives in tiny hamlets surrounded by dense, evergreen forest. Simdega’s medical center, which has 60 beds and three doctors, is in a clearing of the forest — “literally in the middle of nowhere,” said Dr. George Mathew, the director. The meager staff has to manage everything that comes its way, “from malaria to myocardial infarcts to convulsions to head injuries,” Dr. Mathew said. Over the years he has taught himself to read X-rays, and when he is stumped he appeals to the radiologists among his far-flung friends and former colleagues. Though Nandurbar and Simdega are separated by more than 800 miles, their populations are startlingly similar. Malaria, sickle cell disease and TB run rampant among them, compounded by poverty, reliance on spiritual healers and alcoholism — even among the children. “TB tends to get neglected and diagnosis is delayed often,” said Dr. Ashita Singh, the chief of medicine at the Nandurbar hospital. By the time people arrive at these medical centers, they often “are very, very ill and have never even been evaluated anywhere else,” she said. But in some patients, the X-rays carry signs that are too subtle for a nonexpert to detect. “It’s in that group of patients where A.I. tech can be of great benefit,” Dr. Singh said. The arrival of the coronavirus — and the lockdown that followed — cut off these remote hospitals from the nearest towns, and from radiologists, too. It also further delayed and complicated TB diagnoses because both diseases affect the lungs. A few months ago, both hospitals began using qXR, an app made by the Indian company Qure.ai and subsidized by the Indian government. The app allows the user to scan an X-ray. If it finds evidence of TB, it assigns the patient a risk score. Doctors can then perform confirmatory tests on patients with the highest risk. At the hospital in Nandurbar, the app helped diagnose TB in 20 patients in October, Dr. Singh said. Apps like qXR may also be useful in places with a low prevalence of TB, and for routine screening of people with H.I.V., who are at high risk of contracting TB, as well as for those who have other conditions, experts said. “Most chest X-rays for people who are suspected of having tuberculosis are read by people who are not remotely expert at interpreting them,” said Dr. Richard E. Chaisson, a TB expert at Johns Hopkins University. “If there were an A.I. package that could read the X-rays and the CT scans for you in some remote emergency room, that would be a huge, huge advance.” qXR is among the more promising of the A.I.-based apps for detecting TB. The company that made the app didn’t realize that potential until a doctor at an Indian hospital suggested it a few years ago. In studies comparing different A.I. applications that were conducted by the Stop TB Partnership, all of the A.I. apps outperformed experienced human readers, and qXR seemed to fare best. The app identifies TB with an accuracy of 95 percent, according to Qure.ai’s chief executive, Prashant Warier. But that level of precision is not based on real-world conditions, which Dr. Topol called “a common problem” with A.I.-based apps. A TB program may be less precise in the United States or Western Europe than in India, because the prevalence of the disease is lower in those places, Dr. Topol added. The app has only been tested in adults, but it is now being used in children 6 and above. Chest X-rays are particularly useful for pediatric TB because about 70 percent of the cases in children cannot be confirmed by lab tests, said Dr. Silvia S. Chiang, an expert in pediatric TB at Brown University. “There is a huge shortage of trained professionals who feel comfortable interpreting pediatric chest X-rays,” she said, “so developing and validating computer-assisted X-ray reading technologies in children would greatly help.” Qure.ai said that it was testing its app in children in Bangladesh, and that it would publish the data early next year. In the meantime, qXR and other apps will keep improving because they learn as they go. “The more X-rays you feed the beast, the better it gets,” Dr. Pai said. The experts were optimistic over all that A.I.-based apps could make an enormous impact on the control of TB, especially in countries like India that lack medical resources. “I’m just dreaming of a time when something like this would be available to all the little primary and secondary health care centers in the government sector who hesitate to do X-rays because they don’t have the confidence to read them,” Dr. Singh said. “If this was to be made available to every X-ray center in rural India, I think we could beat TB.”

#### That causes extinction – high virulence and transmissibility makes it a unique risk.

Enemark 13, Christian. "Drug-resistant tuberculosis: Security, ethics and global health." Global Society 27.2 (2013): 159-177. (Professor of International Relations at the University of Southampton, PhD in International Relations)

Introduction The worldwide spread of drug-resistant strains of tuberculosis (TB) bacteria (Mycobacterium tuberculosis) is out of control and incidents of harder-to-cure TB illness are rising. This article explores the present and potential impact of extensively drug-resistant tuberculosis (XDR-TB)—a deadly, contagious and virtually incurable disease—on human health and state capacity. Detected cases of XDRTB can occasion the implementation of extraordinary control measures, because some governments are sufficiently fearful of the disease as to frame it as an issue of national security. Such framing has the potential to precipitate more financial resources and stronger legal powers to bolster public health, but it might also increase the risk that emergency response measures will be counterproductive and/or unjust. XDR-TB arguably poses an existential threat to local health systems (and the populations they serve) around the world, so difficult and costly is it to contain and cure this disease. It is the premise of this article that dealing with the problem is a security challenge as much as (or more than) a humanitarian one; controlling XDR-TB is not only about compassion, it is also about survival. Accordingly, this warrants the implementation of emergency measures that go beyond human rights rules and economic norms that would otherwise restrain government decision making. Framing XDR-TB as a security issue is empirically plausible, and doing so is a good thing provided that increased response efforts promote rather than hinder the provision of universal access to adequate TB treatment over the long term. The article begins by outlining the ways in which policy makers and scholars have sought to draw a link between security and infectious diseases generally. In order to assess the plausibility of framing XDR-TB specifically in security terms, it is necessary first to understand the disease’s current and likely impact in public health terms. Beyond assessment of the morbidity, mortality and associated economic burden imposed by XDR-TB, the article then explores two disease control measures that are motivated particularly by security concerns (as distinct from mere health- and/or economy-oriented motivations). These measures are border control and patient isolation. Both involve curtailing individuals’ freedom of movement for the purpose of preventing or delaying contagion, so it is important to assess each measure by reference to public health ethics. Informing this ethical assessment is the notion that a person infected with a contagious disease like XDR-TB is both threatened and threatening. On the one hand, that person is a disease vector from whom the broader population should be protected (an immediate greater good). On the other hand, he or she is also a disease victim (and the bearer of human rights to life and liberty) whose health and wellbeing should be protected (an immediate individual good). A policy dilemma arises as regards the relative importance of achieving each immediate good. The diffi- culty is compounded by the notion that two long-term, greater goods are also at stake: public confidence in health systems and in the protection of individual rights. Infectious Diseases, Security and Ethics The idea of linking health and security concerns, as a matter of academic inquiry and public policy, has received support from two directions. For some members of the public health and human development sectors, the language of security is a means of rallying political support and financial resources to address neglected health issues. In the security sector, some analysts and practitioners argue that the impact of particular health challenges is sufficiently serious as to warrant prioritisation comparable to that traditionally accorded to the threat and use of armed force. Infectious disease (disease caused by bacteria, viruses and other microorganisms) is the health issue that has received the most attention in security-oriented policy documents and scholarly debates. AIDS (caused by the virus HIV) was arguably the first disease to receive the imprimatur of serious attention at the highest levels of security decision making. The passage in 2000 of UN Security Council Resolution 1308 was the first time a health issue was officially framed as a threat to international peace and security. The Resolution expressed concern about the potential adverse effects of HIV/AIDS on UN peacekeeping personnel, but it also stressed more generally that this pandemic, “if unchecked, may pose a risk to stability and security”.1 The belief that HIV/AIDS threatens security has led governments in rich and poor countries alike to take the disease more seriously, and to devote more resources towards controlling it through prevention campaigns and increased provision of life-prolonging medication. George W. Bush’s President’s Emergency Plan for AIDS Relief (PEPFAR), which in 2003 allocated $US15 billion over five years to international HIV/AIDS programmes—“the largest commitment ever by any nation for an international health initiative dedicated to a single disease”2 —is an example of this. The legislation that authorised this extraordinary allocation of resources included a security rationale, with HIV/ AIDS described as “destabilising communities” and being a disease that “weakens the defenses of countries severely affected”.3 Soon after PEPFAR was authorised, a highly pathogenic avian (and potentially pandemic) influenza virus (H5N1) emerged and began its rapid spread to dozens of countries worldwide. This prompted policy makers and scholars alike to begin contemplating the security implications of an influenza pandemic resembling the great “Spanish Flu” of 1918–1919 which killed an estimated 40 million people. Pandemic influenza is a prime candidate for securitisation because of its capacity to inspire dread on a large scale and in a short space of time. In 2007, for example, the World Health Organization (WHO) described this disease as “the most feared security threat”.4 Naturally occurring disease outbreaks have also come to be considered alongside the enduring problem of biological weapons. US President Barack Obama’s 2010 National Security Strategy emphasised the importance of continued efforts “to reduce the risk associated with unintentional or deliberate outbreaks of infectious disease”.5 The political process whereby non-military phenomena (such as naturally occurring disease outbreaks) come to be treated as security issues has been theorised by scholars of the Copenhagen School. The theory of ‘securitisation’ has attracted numerous attempts at contestation, development and refinement, but the theory’s straightforward central proposition continues to have great explanatory power: for threats to count as security issues, they must be distinguished from issues that are merely political. Specifically, they have to be “staged as existential threats to a referent object by a securitizing actor who thereby generates endorsement of emergency measures beyond rules that would otherwise bind”.6 Securitisation is not the same as mere prioritisation. Rather, securitisation theory emphasises and insists upon the emergency nature of threats and the extraordinary nature of responses. Both the threat of and the response to XDR-TB are assessed in later sections of this article. For present purposes, the central concern is societal functioning, with the referent object of security being the state’s ability to protect its population through public health and healthcare systems. In assessing whether a particular infectious disease should be framed as a threat to security, the theoretical assumption is that a “security” element is what propels an issue to the top of a government’s political agenda. With this special status comes access to extraordinary legal, financial, military and/or other measures, the implementation of which may have adverse implications both for public health and for individual human rights. Although securitisation theory appears to be mainly descriptive of a political process of constructing “security”, it is important to note its built-in (albeit underdeveloped) normative dimension. In originally expounding their theory, Barry Buzan and his co-authors argued that “[a]voiding excessive and irrational securitization is ... a legitimate social, political and economic objective of considerable importance”.7 Moreover, they warned against idealising national security because “[i]t works to silence opposition and has given power holders many opportunities to exploit ‘threats’ for domestic purposes, to claim a right to handle something with less democratic control and constraint”.8 Regarding state responses to infectious diseases, Stefan Elbe points out that people living with HIV, for example, have been “ostracized and even persecuted by some states for their illness”.9 He argues that framing the disease as a national security threat “risks fuelling such exclusionary and dehumanizing responses and could serve as an implicit legitimisation of any harsh or unjust ‘emergency’ policies that states may adopt in relation to persons living with the virus”.10 These observations are a warning that emergency measures to address infectious disease threats must not in themselves curtail human rights to the point that securitisation becomes illegitimate and counterproductive. Although political claims about the security status of particular diseases often refer to the paramount importance of swift and aggressive responses, experience suggests that haste and zeal can sometimes undermine rather than assist disease-control efforts. There is thus a case for tempering security-oriented analysis with a concern for ethical principles. Because disease control measures sometimes involve infringement of widely accepted individual rights and liberties, infectious diseases raise difficult ethical questions about how to strike a balance between the goal of protecting the greater good of public health and the goal of protecting individual human rights. Quarantine, isolation and travel restrictions, for example, violate the right to freedom of movement. Other public health measures—such as contact tracing and the reporting of the health status of individuals to authorities—can interfere with the right to privacy. Although measures such as these might sometimes be necessary to avert public health disasters, the question arises: how great must a public health threat be for such measures to be justified? Most scholars and policy makers would presumably accept that the goal of promoting the greater good of society through public health does not always take priority over the protection of individual rights and liberties, nor vice versa. The task of appropriately balancing and simultaneously pursuing these two sets of interests is then made more difficult—and more important—by the insertion of a security dimension. For example, the fear factor that is necessarily present in anything to do with “security” can have a distorting effect. It has been argued, for example, that infectious diseases’ powerful ability to engender fear often leads to “rapid, emotionally driven decision making about the care of individual patients and about public health policies”, even when these decisions “challenge generally accepted medical ethics principles such as patient autonomy, non-maleficence, beneficence and justice”.11 Securitisation of an infectious disease should thus be of such a form as can guard against these dangers. Tuberculosis and Drug Resistance The resurgence of TB in an extremely drug-resistant form since 2006, prompting extraordinary responses by some governments, presents an opportunity to consider anew the relationship between infectious diseases, security and ethics. Tuberculosis is an infectious bacterial disease transmitted via airborne droplets. Although approximately one-third of the world’s population is infected with TB bacteria, not all who are infected develop TB disease. Mycobacterium tuberculosis bacteria can lie dormant in the body for many years. If a person’s immune system is weakened (by HIV co-infection, some other medical condition or simply by old age), he or she can develop what is referred to as “active” TB. Only one in 10 infected individuals is likely to progress to an active TB episode during their lifetime in the absence of immune system suppression. The disease most often affects the lungs, but it can also affect the brain, kidneys or spine. Infectious bacteria can spread through the air when a person with active TB sneezes, coughs, spits or talks, and someone with untreated TB can potentially infect 10 to 15 others annually.12 The disease is today a major cause of illness and premature mortality, especially among people living with HIV, and the human toll it exacts is likely to increase as drug resistance makes TB treatment more difficult and expensive. According to the latest WHO report on global tuberculosis control, in 2011 there were an estimated 8.7 million new cases of TB globally, almost one million deaths among HIV-negative cases of TB, and an additional 430,000 deaths among people who were HIV-positive.13 People living with HIV who are also infected with TB are 21–34 times more likely to develop TB disease compared with those who are HIV-negative, and the highest rates of HIV–TB co-infection occur in Africa where 44% of TB patients with an HIV test result in 2010 were HIV-positive.14 Although the focus of this article is on the security significance of drug-resistant TB rather than the broader HIV–TB co-epidemic, suffice to say that any increase in HIV prevalence would exacerbate the spread of drug-resistant TB. TB bacteria build up resistance to anti-TB drugs because of incomplete or inadequate treatment. In poorer countries especially, it can be difficult to ensure adherence to a course of antibiotics which, to be effective, needs to continue without interruption for six to eight weeks. Unsurprisingly, an individual who begins to feel better before such time has elapsed might decide to stop taking the drugs, especially if they are expensive. To reduce the likelihood of drug-resistant TB bacteria emerging, the longstanding approach to TB treatment is directly observed treatment—short course (DOTS), which focuses on supervised adherence to a fixed combination of drugs. Nevertheless, systemic incountry problems like inconsistent drug prescribing, erratic drug supply and unregulated over-the-counter drug sales increase the risk of inadequate TB treatment. Likewise, in many parts of the world, chronic shortages of trained medical staff and inadequate laboratory capacity make it difficult to track and properly treat incidents of TB illness. If drug treatment is stopped prematurely, the TB bacteria will not be completely eliminated from the body and those that remain may mutate into a form against which the drug is powerless; what did not kill the bacteria serves to makes them stronger. A person infected with TB bacteria that are resistant to first-line drugs—multidrug-resistant (MDR) TB—must then resort to stronger (and more toxic) second-line drugs administered over a longer period of time. Some anti-MDR-TB drugs are administered by injection, so individualised treatment requires a high level of medical expertise. If treatment with these second-line drugs is inadequate or incomplete, the targeted bacteria may mutate further into a form against which almost no drug is effective—extensively drug-resistant (XDR) TB.15 The WHO has reported that the total number of incident TB cases per year worldwide has been falling since 2006.16 However, the proportion of TB cases globally that are caused by drug-resistant TB bacteria is rising. In 2010, there were an estimated 650,000 cases of MDR-TB among the world’s 12 million prevalent cases of TB.17 Among the 27 countries that the WHO designates as high MDRTB burden countries, former Soviet Union countries are conspicuous in terms of the estimated percentages of new TB cases that are multidrug-resistant: Azerbaijan (22%), Belarus (26%), Estonia (18%), Moldova (19%) and Russia (18%).18 The four countries that had the largest number of estimated cases of MDR-TB in absolute terms in 2008 were China (100,000), India (99,000), Russia (38,000) and South Africa (13,000).19 The most worrying statistic is that “patients enrolled on treatment for MDR-TB in 2010 [104,000] only represented 16% of the MDR-TB cases estimated to exist among reported TB cases”.20 The remaining 84% are either not receiving treatment or are receiving inadequate treatment, and the latter poses an XDR-TB risk. As of the end of 2011, 77 countries had reported at least one case of XDR-TB.21 If the number of MDR-TB cases in the world is 650,000, the WHO estimate of global XDR-TB prevalence comes out at 58,500 cases worldwide. Given the low rate (16%) of MDR-TB treatment going to people who need it, it is reasonable to suppose that many if not most XDR-TB cases are also left untreated. The disease called “extensively drug-resistant tuberculosis” was first described in 2006.22 Between January 2005 and March 2006, 221 cases of MDR-TB were identified at the Tugela Ferry district hospital in KwaZulu-Natal Province, South Africa. Of these, 53 patients were further diagnosed with XDR-TB. Half had never previously received TB treatment. The mortality rate was extremely high—52 of the patients (98%) died within a median of 16 days after initial sputum collection.23 Unsurprisingly, XDR-TB mortality rates resemble mortality rates from ordinary TB during the pre-antibiotic era. Without drug treatment, TB victims are highly likely to die. Studies of the natural history of the disease among sputum smear-positive and HIV-negative cases of pulmonary TB have shown that around 70% of victims died within 10 years. Treatment using combinations of anti-TB drugs developed in the 1940s and 1950s can dramatically reduce mortality rates, and in 2009 the treatment success rate globally among reported smear-positive cases of drug-susceptible, pulmonary TB reached 87%.24 But with increased and more widespread drug resistance has come reduced rates of treatment success for this strengthened form of TB illness. In low HIV-prevalence settings, patients with MDR-TB have been treated with a success rate of 60–80%, and the rate is 44–60% for XDR-TB patients.25 This means the mortality rate among treated MDR-TB and XDR-TB patients is as high as 40% and 56% respectively. Mortality rates are even higher in circumstances where a patient undergoing TB treatment is HIV-positive.26 Naturally, whether or not an MDR-TB or XDR-TB patient is HIV-positive, he or she is more likely still to die in circumstances of no treatment at all. Beyond epidemiological data that evaluate the health burden of TB, it is worth considering also the disease’s economic burden—a burden that will surely increase as TB becomes harder to treat. In addition to the cost of lost productivity, the WHO estimates that TB treatment costs alone will reach US$16.2 billion by 2015.27 Although the six-month course of treatment for drug-susceptible TB is not prohibitively expensive, treating MDR-TB can cost US$144–265 per day, with the requisite two-year treatment costs totalling US$40,000 per patient.28 If every one of the 650,000 people estimated to have MDR-TB were to undergo adequate treatment, the cost would therefore be US$26 billion. According to the WHO, the cost of drugs alone for treating the average MDR-TB patient is 50 to 200 times higher than for treating a drug-susceptible TB patient, and the overall cost of care can be more than 10 times higher.29 In the case of XDR-TB, treatment could be of indefinite duration and indeterminate cost, possibly limited only by the patient’s life expectancy. After establishing that drug-resistant TB is a serious and worsening problem from a health and economic perspective, the question remains: is the threat of XDR-TB severe enough to count as a security threat? For “security” to be invoked, it is not enough simply to point to a “threat”. Lots of things are threatening to a greater or lesser extent, so the Copenhagen School insists that a threat must be an existential one. To count as a security threat (as distinct from a mere economic and/or health threat), the very survival of something or someone must be at stake. The evidence presented so far suggests strongly that this is the case: XDR-TB arguably endangers local and international health systems because treating this disease is increasingly expensive and the burden of treating large numbers of patients could become unbearable. Securitisation as an intersubjective process is achieved, and emergency responses to the identified problem thus endorsed, once the notion of a threat is believed and accepted by others.30 In the case of XDR-TB, the available epidemiological data make a claim to security status plausible, as does a comparison to other infectious diseases that are already sometimes addressed in security terms. For example, compared to HIV which is not readily transmissible, it is much harder to protect oneself against infection by the airborne microorganisms that cause TB. And whereas pandemic influenza also spreads through the air, TB bacteria can be far more deadly than influenza virus if the former are drug resistant. Recent attempts at developing a broadly effective TB vaccine have met with little success,31 so antibiotics remain the primary pharmaceutical response to the disease. But as MDR-TB mutates into XDR-TB, and as drug resistance becomes more widespread, a pharmaceutical solution moves further out of reach. The relative importance of containing what is virtually incurable is increasing, and it is in this context that drastic disease control measures are being proposed and implemented. Adopting emergency measures to counter grave threats is the stuff of “security”, but the protection of public health must always be guided by ethical considerations. Accordingly, the remainder of this article addresses the question: how should XDR-TB be securitised?

# 3

#### Pleasure and pain are intrinsically valuable. people consistently regard pleasure and pain as good reasons for action, despite the fact that pleasure doesn’t seem to be instrumentally valuable for anything.

Moen 16 [Ole Martin Moen, Research Fellow in Philosophy at University of Oslo “An Argument for Hedonism” Journal of Value Inquiry (Springer), 50 (2) 2016: 267–281] SJDI

Let us start by observing, empirically, that a widely shared judgment about intrinsic value and disvalue is that pleasure is intrinsically valuable and pain is intrinsically disvaluable. On virtually any proposed list of intrinsic values and disvalues (we will look at some of them below), pleasure is included among the intrinsic values and pain among the intrinsic disvalues. This inclusion makes intuitive sense, moreover, for there is something undeniably good about the way pleasure feels and something undeniably bad about the way pain feels, and neither the goodness of pleasure nor the badness of pain seems to be exhausted by the further effects that these experiences might have. “Pleasure” and “pain” are here understood inclusively, as encompassing anything hedonically positive and anything hedonically negative.2 The special value statuses of pleasure and pain are manifested in how we treat these experiences in our everyday reasoning about values. If you tell me that you are heading for the convenience store, I might ask: “What for?” This is a reasonable question, for when you go to the convenience store you usually do so, not merely for the sake of going to the convenience store, but for the sake of achieving something further that you deem to be valuable. You might answer, for example: “To buy soda.” This answer makes sense, for soda is a nice thing and you can get it at the convenience store. I might further inquire, however: “What is buying the soda good for?” This further question can also be a reasonable one, for it need not be obvious why you want the soda. You might answer: “Well, I want it for the pleasure of drinking it.” If I then proceed by asking “But what is the pleasure of drinking the soda good for?” the discussion is likely to reach an awkward end. The reason is that the pleasure is not good for anything further; it is simply that for which going to the convenience store and buying the soda is good.3 As Aristotle observes: “We never ask [a man] what his end is in being pleased, because we assume that pleasure is choice worthy in itself.”4 Presumably, a similar story can be told in the case of pains, for if someone says “This is painful!” we never respond by asking: “And why is that a problem?” We take for granted that if something is painful, we have a sufficient explanation of why it is bad. If we are onto something in our everyday reasoning about values, it seems that pleasure and pain are both places where we reach the end of the line in matters of value.

#### **Thus, the standard is maximizing expected well being**

Prefer additionally:

#### **1] Extinction first**

Pummer 15 [Theron, Junior Research Fellow in Philosophy at St. Anne's College, University of Oxford. “Moral Agreement on Saving the World” Practical Ethics, University of Oxford. May 18, 2015] AT

There appears to be lot of disagreement in moral philosophy. Whether these many apparent disagreements are deep and irresolvable, I believe there is at least one thing it is reasonable to agree on right now, whatever general moral view we adopt: that it is very important to reduce the risk that all intelligent beings on this planet are eliminated by an enormous catastrophe, such as a nuclear war. How we might in fact try to reduce such existential risks is discussed elsewhere. My claim here is only that we – whether we’re consequentialists, deontologists, or virtue ethicists – should all agree that we should try to save the world. According to consequentialism, we should maximize the good, where this is taken to be the goodness, from an impartial perspective, of outcomes. Clearly one thing that makes an outcome good is that the people in it are doing well. There is little disagreement here. If the happiness or well-being of possible future people is just as important as that of people who already exist, and if they would have good lives, it is not hard to see how reducing existential risk is easily the most important thing in the whole world. This is for the familiar reason that there are so many people who could exist in the future – there are trillions upon trillions… upon trillions. There are so many possible future people that reducing existential risk is arguably the most important thing in the world, even if the well-being of these possible people were given only 0.001% as much weight as that of existing people. Even on a wholly person-affecting view – according to which there’s nothing (apart from effects on existing people) to be said in favor of creating happy people – the case for reducing existential risk is very strong. As noted in this seminal paper, this case is strengthened by the fact that there’s a good chance that many existing people will, with the aid of life-extension technology, live very long and very high quality lives. You might think what I have just argued applies to consequentialists only. There is a tendency to assume that, if an argument appeals to consequentialist considerations (the goodness of outcomes), it is irrelevant to non-consequentialists. But that is a huge mistake. Non-consequentialism is the view that there’s more that determines rightness than the goodness of consequences or outcomes; it is not the view that the latter don’t matter. Even John Rawls wrote, “All ethical doctrines worth our attention take consequences into account in judging rightness. One which did not would simply be irrational, crazy.” Minimally plausible versions of deontology and virtue ethics must be concerned in part with promoting the good, from an impartial point of view. They’d thus imply very strong reasons to reduce existential risk, at least when this doesn’t significantly involve doing harm to others or damaging one’s character. What’s even more surprising, perhaps, is that even if our own good (or that of those near and dear to us) has much greater weight than goodness from the impartial “point of view of the universe,” indeed even if the latter is entirely morally irrelevant, we may nonetheless have very strong reasons to reduce existential risk. Even egoism, the view that each agent should maximize her own good, might imply strong reasons to reduce existential risk. It will depend, among other things, on what one’s own good consists in. If well-being consisted in pleasure only, it is somewhat harder to argue that egoism would imply strong reasons to reduce existential risk – perhaps we could argue that one would maximize her expected hedonic well-being by funding life extension technology or by having herself cryogenically frozen at the time of her bodily death as well as giving money to reduce existential risk (so that there is a world for her to live in!). I am not sure, however, how strong the reasons to do this would be. But views which imply that, if I don’t care about other people, I have no or very little reason to help them are not even minimally plausible views (in addition to hedonistic egoism, I here have in mind views that imply that one has no reason to perform an act unless one actually desires to do that act). To be minimally plausible, egoism will need to be paired with a more sophisticated account of well-being. To see this, it is enough to consider, as Plato did, the possibility of a ring of invisibility – suppose that, while wearing it, Ayn could derive some pleasure by helping the poor, but instead could derive just a bit more by severely harming them. Hedonistic egoism would absurdly imply she should do the latter. To avoid this implication, egoists would need to build something like the meaningfulness of a life into well-being, in some robust way, where this would to a significant extent be a function of other-regarding concerns (see chapter 12 of this classic intro to ethics). But once these elements are included, we can (roughly, as above) argue that this sort of egoism will imply strong reasons to reduce existential risk. Add to all of this Samuel Scheffler’s recent intriguing arguments (quick podcast version available here) that most of what makes our lives go well would be undermined if there were no future generations of intelligent persons. On his view, my life would contain vastly less well-being if (say) a year after my death the world came to an end. So obviously if Scheffler were right I’d have very strong reason to reduce existential risk. We should also take into account moral uncertainty. What is it reasonable for one to do, when one is uncertain not (only) about the empirical facts, but also about the moral facts? I’ve just argued that there’s agreement among minimally plausible ethical views that we have strong reason to reduce existential risk – not only consequentialists, but also deontologists, virtue ethicists, and sophisticated egoists should agree. But even those (hedonistic egoists) who disagree should have a significant level of confidence that they are mistaken, and that one of the above views is correct. Even if they were 90% sure that their view is the correct one (and 10% sure that one of these other ones is correct), they would have pretty strong reason, from the standpoint of moral uncertainty, to reduce existential risk. Perhaps most disturbingly still, even if we are only 1% sure that the well-being of possible future people matters, it is at least arguable that, from the standpoint of moral uncertainty, reducing existential risk is the most important thing in the world. Again, this is largely for the reason that there are so many people who could exist in the future – there are trillions upon trillions… upon trillions. (For more on this and other related issues, see this excellent dissertation). Of course, it is uncertain whether these untold trillions would, in general, have good lives. It’s possible they’ll be miserable. It is enough for my claim that there is moral agreement in the relevant sense if, at least given certain empirical claims about what future lives would most likely be like, all minimally plausible moral views would converge on the conclusion that we should try to save the world. While there are some non-crazy views that place significantly greater moral weight on avoiding suffering than on promoting happiness, for reasons others have offered (and for independent reasons I won’t get into here unless requested to), they nonetheless seem to be fairly implausible views. And even if things did not go well for our ancestors, I am optimistic that they will overall go fantastically well for our descendants, if we allow them to. I suspect that most of us alive today – at least those of us not suffering from extreme illness or poverty – have lives that are well worth living, and that things will continue to improve. Derek Parfit, whose work has emphasized future generations as well as agreement in ethics, described our situation clearly and accurately: “We live during the hinge of history. Given the scientific and technological discoveries of the last two centuries, the world has never changed as fast. We shall soon have even greater powers to transform, not only our surroundings, but ourselves and our successors. If we act wisely in the next few centuries, humanity will survive its most dangerous and decisive period. Our descendants could, if necessary, go elsewhere, spreading through this galaxy…. Our descendants might, I believe, make the further future very good. But that good future may also depend in part on us. If our selfish recklessness ends human history, we would be acting very wrongly.” (From chapter 36 of On What Matters)

#### **2**] use epistemic modesty – multiply probability of the fwk times the magnitude of the impacts

#### A) clash – encourages both substantive and phil debates so that we talk about all the offense

#### B) leads to the net most morality and proves that only beating fwk is not enough to win the debate

#### 3] accessibility – util is the easiest to access

#### A] it doesn’t require access to private sites like jstor

#### B] it’s the easiest to understand which is good for novices – inclusion comes first since we need to maximize accessibility in order to have a real conversation

4] Role playing as policy makers is key to solving real world problems-so the role of the ballot is to evaluate the hypothetical consequences of the plan and vote for the best hypothetical policy action. Coverstone[[1]](#footnote-1) :

(Alan H., “Acting on Activism: Realizing the Vision of Debate with Pro-social Impact,” Paper presented at the National Communication Association Annual Conference, 11/17/05)

 After all, if democracy means anything, it means that citizens not only have the right, they also bear the obligation to discuss and debate what the government should be doing**.** Absent that discussion and debate, much of **the motivation for personal political activism is** also **lost**. Those who have co-opted Mitchellâ€™s argument for individual advocacy often quickly respond that nothing we do in a debate round can actually change government policy, and unfortunately, an entire generation of debaters has now swallowed this assertion as an article of faith. The best most will muster is, â€œOf course not, but you donâ€™t either!â€ The assertion that nothing we do in debate has any impact on government policy is one that carries the potential to undermine Mitchellâ€™s entire project. If there is nothing we can do in a debate round to change government policy, then we are left with precious little in the way of pro-social options for addressing problems we face. At best, we can pursue some Pilot-like hand washing that can purify us as individuals through quixotic activism but offer little to society as a whole. It is very important to note that Mitchell (1998b) tries carefully to limit and bound his notion of reflexive fiat by maintaining that because it â€œviews fiat as a concrete course of action, it is bounded by the limits of pragmatismâ€ (p. 20). Pursued properly, the debates that Mitchell would like to see are those in which **the relative efficacy of concrete political strategies** for pro-social change **is debated**. In a few noteworthy examples, this approach has been employed successfully, and I must say that I have thoroughly enjoyed judging and coaching those debates. The students in my program have learned to stretch their understanding of their role in the political process because of the experience. Therefore, those who say I am opposed to Mitchellâ€™s goals here should take care at such a blanket assertion. Â¶ However, **contest debate teaches students to combine personal experience with the language of political power.** Powerfulpersonal **narratives unconnected to** political **power are** regularly **co-opted** by those who do learn the language of power. One needlook no further than the annual state of the Union Address where personal story after personal story is used to support the political agenda of those in power. The so-called **role-playing** that public policy contest debates encourage **promotes**active **learning** ofthe vocabulary and levers of **power** in America**.** Imagining the ability to use our own arguments to influence government action is one of the great virtues of academic debate. Gerald Graff (2003) analyzed the decline of argumentation in academic discourse and found a source of student antipathy to public argument in an interesting place.Â¶ Iâ€™m up againstâ€¦their aversion to the role of public spokesperson that formal writing presupposes. Itâ€™s as if such students canâ€™t imagine any rewards for being a public actor or even imagining themselves in such a role. This lack of interest in the public sphere may in turn reflect a loss of confidence in the possibility that the arguments we make in public will have an effect on the world. Todayâ€™s students lack of faith in the power of persuasion reflects the waning of the ideal of civic participation that led educators for centuries to place rhetorical and argumentative training at the center of the school and college curriculum. (Graff, 2003, p. 57)Â¶ The power to imagine public advocacy that actually makes a difference is one of the great virtues of the traditional notion of fiat that critics deride as mere simulation. **Simulation of success**in the public realm **is**far more **empowering** to students than completely abandoning all notions of personal power in the face of governmental hegemony by teaching students that nothing they can do in a contest debate can ever make any difference in public policy.â€ Contest debating is well suited to rewarding public activism if it stops accepting as an article of faith that personal agency is somehow undermined by the so-called role playing in debate. Debate is role-playing whether we imagine government action or imagine individual action. **Imagining myself starting a socialist revolution** in America **is no less of a fantasy than imagining myself** making a difference **on Capitol Hill.** Furthermore, both fantasies influenced my personal and political development virtually ensuring a life of active, pro-social, political participation. Neither fantasy reduced the likelihood that I would spend my life trying to make the difference I imagined**. One fantasy**actually **does make a greater difference: the one that speaks the language of political power.**The **other** fantasy **disables action by making one a laughingstock** to those who wield the language of power.

# Case

### 1NC – presumption

#### Zero internal links to this aff solving its own impacts – no explanation of how banning intellectual property protections, not even a technology, is sufficient to catalyze a shift to different modes of computation or “pluralize politics and economics” – that means neg on presumption – every line from every impact card they’ve read is an alt-cause completely divorced from intellectual property – absent causal evidence that defends a specific internal link you should not let them fiat away the entire international order’s propensity for technoliberalism, state interests, conflicts, or existing global dynamics – if they try to shift out of the impact turns by saying “we allow for certain types of algorithms” or “aff only bans one tech” it proves they can’t solve their impacts.

### LBL

#### 2nd Kroker 14 –

#### **1] No warrant as to why these technologies are bad, just that they exist**

#### **2] Collecting data about people’s hearts can’t make a heart – that’s like saying if I gather enough arms and legs I can make a person**

#### **3] Empirically denied – make them prove a robot that has a heart**

#### **4] Human control solves – humans are in charge of what data they have worst case… just turn them off**

#### Pelizzoni –

#### 1] Powertagged – card doesn’t say anything about IP

#### 2] TURN – Ip is better for reducing the spread of biotech because it gives control over tech to only a few key people rather than allowing it to be mass produced

#### Chen –

#### 1] has nothing to do with cybernetics – just proves the turn on case – even without technology, humans will mess things up only tech can save us

#### Hui –

#### 1] turn – robots are intrinsically human because they are made by humans

#### 2] the fact that you’re debating with a laptop every round proves that discussing the aff isn’t going to reduce the power of tech

#### Tiqqun –

#### 1] no internal link – don’t let them get away with just claiming that they jam info

#### 2] imperialism and info sharing predates tech – we used to use pigeons

#### Thacker –

#### 1] life over tech

#### 2] even if bioWAR is bad – bioMEDS are good

#### Krocker and Weinstein – 1]

### Case

#### Top Level - Unsustainability claims are suspect because our brains are wired for techno-pessimism – digital synchronicity can fix racism embedded in cybernetics thru human ingenuity and make the world materially better

Reinhart 18 (Will Rinehart is Director of Technology and Innovation Policy at the American Action Forum, where he specializes in telecommunication, Internet, and data policy, with a focus on emerging technologies and innovation. Rinehart previously worked at TechFreedom, where he was a Research Fellow. He was also previously the Director of Operations at the International Center for Law & Economics. In Defense of Techno-optimism. 10-10-2018. <https://techliberation.com/2018/10/10/in-defense-of-techno-optimism/> //shree)

Many are understandably pessimistic about platforms and technology. This year has been a tough one, from Cambridge Analytica and Russian trolls to the implementation of GDPR and data breaches galore.

Those who think about the world, about the problems that we see every day, and about their own place in it, will quickly realize the immense frailty of humankind. Fear and worry makes sense. We are flawed, each one of us. And technology only seems to exacerbate those problems.

But life is getting better. Poverty continues nose-diving; adult literacy is at an all-time high; people around the world are living longer, living in democracies, and are better educated than at any other time in history. Meanwhile, the digital revolution has resulted in a glut of informational abundance, helping to correct the informational asymmetries that have long plagued humankind. The problem we now face is not how to address informational constraints, but how to provide the means for people to sort through and make sense of this abundant trove of data. These macro trends don’t make headlines. Psychologists know that people love to read negative articles. Our brains are wired for pessimism.

In the shadow of a year of bad news, it helpful to remember that Facebook and Google and Reddit and Twitter also support humane conversations. Most people aren’t going online to talk about politics and if you are, then you are rare. These sites are places where families and friends can connect. They offer a space of solace – like when chronic pain sufferers find others on Facebook, or when widows vent, rage, laugh and cry without judgement through the Hot Young Widows Club. Let’s also not forget that Reddit, while sometimes a place of rage and spite, is also where a weight lifter with cerebral palsy can become a hero and where those with addiction can find healing. And in the hardest to reach places in Canada, in Iqaluit, people say that “Amazon Prime has done more toward elevating the standard of living of my family than any territorial or federal program. Full stop. Period”

Three-fourths of Americans say major technology companies’ products and services have been more good than bad for them personally. But when it comes to the whole of society, they are more skeptical about technology bringing benefits. Here is how I read that disparity: Most of us think that we have benefited from technology, but we worry about where it is taking the human collective. That is an understandable worry, but one that shouldn’t hobble us to inaction.

Nor is technology making us stupid. Indeed, quite the opposite is happening. Technology use in those aged 50 and above seems to have caused them to be cognitively younger than their parents to the tune of 4 to 8 years. While the use of Google does seem to reduce our ability to recall information, studies find that it has boosted other kinds of memory, like retrieving information. Why remember a fact when you can remember where it is located? Concerned how audiobooks might be affecting people, Beth Rogowsky, an associate professor of education, compared them to physical reading and was surprised to find “no significant differences in comprehension between reading, listening, or reading and listening simultaneously.” Cyberbullying and excessive use might make parents worry, but NIH supported work found that “Heavy use of the Internet and video gaming may be more a symptom of mental health problems than a cause. Moderate use of the Internet, especially for acquiring information, is most supportive of healthy development.” Don’t worry. The kids are going to be alright.

And yes, there is a lot we still need to fix. There is cruelty, racism, sexism, and poverty of all kinds embedded in our technological systems. But the best way to handle these issues is through the application of human ingenuity. Human ingenuity begets technology in all of its varieties.

When Scott Alexander over at Star Slate Codex recently looked at 52 startups being groomed by startup incubator Y Combinator, he rightly pointed out that many of them were working for the betterment of all:

Thirteen of them had an altruistic or international development focus, including Neema, an app to help poor people without access to banks gain financial services; Kangpe, online health services for people in Africa without access to doctors; Credy, a peer-to-peer lending service in India; Clear Genetics, an automated genetic counseling tool for at-risk parents; and Dost Education, helping to teach literacy skills in India via a $1/month course.

Twelve of them seemed like really exciting cutting-edge technology, including CBAS, which describes itself as “human bionics plug-and-play”; Solugen, which has a way to manufacture hydrogen peroxide from plant sugars; AON3D, which makes 3D printers for industrial uses; Indee, a new genetic engineering system; Alem Health, applying AI to radiology, and of course the obligatory drone delivery startup.

Eighteen of them seemed like boring meat-and-potatoes companies aimed at businesses that need enterprise data solution software application package analytics targeting management something something something “the cloud”.

As for the other companies, they were the kind of niche products that Silicon Valley has come to be criticized for supporting. Perhaps the Valley deserves some criticism, but perhaps it deserves more credit than it’s been receiving as-of-late.

Contemporary tech criticism displays a kind of anti-nostalgia. Instead of being reverent for the past, anxiety for the future abounds. In these visions, the future is imagined as a strange, foreign land, beset with problems. And yet, to quote that old adage, tomorrow is the visitor that is always coming but never arrives. The future never arrives because we are assembling it today. We need to work diligently together to piece together a better world. But if we constantly live in fear of what comes next, that future won’t be built. Optimism needn’t be pollyannaish. It only needs to be hopeful of a better world.

#### Tech thought is inevitable - circumvention

Kateb, professor of politics – Princeton, ’97 (George, <http://findarticles.com/p/articles/mi_m2267/is_/ai_19952031>)

But the question arises as to where a genuine principle of limitation on technological endeavor would come from. It is scarcely conceivable that Western humanity--and by now most of humanity, because of their pleasures and interests and their own passions and desires and motives--would halt the technological project. Even if, by some change of heart, Western humanity could adopt an altered relation to reality and human beings, how could it be enforced and allowed to yield its effects? The technological project can be stopped only by some global catastrophe that it had helped to cause or was powerless to avoid. Heidegger's teasing invocation of the idea that a saving remedy grows with the worst danger is useless. In any case, no one would want the technological project halted, if the only way was a global catastrophe. Perhaps even the survivors would not want to block its reemergence. As for our generation and the indefinite future, many of us are prepared to say that there are many things we wish that modern science did not know or is likely to find out and many things we wish that modern technology did not know how to do. When referring in 1955 to the new sciences of life, Heidegger says We do not stop to consider that an attack with technological means is being prepared upon the life and nature of man compared with which the explosion of the hydrogen bomb means little. For precisely if the hydrogen bombs do not explode and human life on earth is preserved, an uncanny change in the world moves upon us (1966, p. 52). The implication is that it is less bad for the human status or stature and for the human relation to reality that there be nuclear destruction than that (what we today call) genetic engineering should go from success to success. To such lengths can a mind push itself when it marvels first at the passions, drives, and motives that are implicated in modern technology, and then marvels at the feats of technological prowess. The sense of wonder is entangled with a feeling of horror. We are past even the sublime, as conceptualized under the influence of Milton's imagination of Satan and Hell. It is plain that so much of the spirit of the West is invested in modern technology. We have referred to anger, alienation, resentment. But that cannot be the whole story. Other considerations we can mention include the following: a taste for virtuosity, skill for its own sake, an enlarged fascination with technique in itself, and, along with these, an aesthetic craving to make matter or nature beautiful or more beautiful; and then, too, sheer exhilaration, a questing, adventurous spirit that is reckless, heedless of danger, finding in obstacles opportunities for self-overcoming, for daring, for the very sort of daring that Heidegger praises so eloquently when in 1935 he discusses the Greek world in An Introduction to Metaphysics (1961, esp. pp. 123-39). All these considerations move away from anger, anxiety, resentment, and so on. The truth of the matter, I think, is that the project of modern technology, just like that of modern science, must attract a turbulence of response. The very passions and drives and motives that look almost villainous or hypermasculine simultaneously look like marks of the highest human aspiration, or, at the least, are not to be cut loose from the highest human aspiration.

#### Cede the Political DA – only state engagement stops cybernetics spiral

Hughes 2 (James, PhD in Public Policy @ Trinity College. “Democratic Transhumanism 2.0” <http://www.changesurfer.com/Acad/DemocraticTranshumanism.htm> //shree)

What then of arguments from within the transhumanist worldview?

First, state action is required to address catastrophic threats from transhumanist technologies. Most transhumanists acknowledge that nanotechnology, genetic engineering and artificial intelligence could cause catastrophes if used for terrorist or military purposes, or accidentally allowed to reproduce in the wild. Contemplation of these catastrophic scenarios has led prominent transhumanists, such as Max More the founder and president of the Extropy Institute, to move away from libertarianism and to endorse prophylactic government policies. Requiring nanotechnology firms to take out insurance against the accidental destruction of the biosphere just isn’t very practical. What insurance policy covers accidental destruction of the biosphere? How could the externalities of bioterrorism be internalized into a cost accounting of a gene therapy firm? Only governments are in a position to create the necessary levels of prophylaxis, and most transhumanists can agree on this point.

Second, only believable and effective state-based policies to prevent adverse consequences from new technologies will reassure skittish publics that they do not have to be banned. Because of the weakness of social democracy in the U.S., current technology policy is dominated by ignorant hysteria on one side and greed on the other, politicians feeding off of populist Luddite hysteria and corporate anti-regulatory lobbyists. Publics must be offered a choice other than that of unfettered free-market technology versus bans. If transhumanists do not acknowledge the legitimacy of regulation, and attempt to craft and support responsible legislation, they cede the field to the Luddites. These choices require strong social democratic governments, such as those of Europe, that can act independent of corporate interests and vocal extremists. We need a strong social democratic regulatory apparatus that does not block transhuman technologies for Luddite reasons, but that also will ensure that transhuman technologies are safe and effective. The case of cryonics shows how spectacular frauds or iatrogenic disasters can set back acceptance of transhuman technology altogether. Human enhancements must be proven safe before being used, but not held hostage to vague Luddite anxieties.

Third, social policies must explicitly address public concerns that biotechnology will exacerbate social inequality. Libertarian transhumanists have a forceful answer to the challenge that biotechnology will be used for totalitarian applications: in a liberal society, each individual will choose for themselves whether to adopt the technologies. But what is their answer to the threat of growing class polarization? Biotechnologies will make it possible for the wealthy to have healthier, stronger, more intelligent and longer-lived children. Overcoming popular resistance to technology will require not only assuring publics that they are safe and will not be forced on anyone, but also that there will be universal, equitable access to their benefits through public financing. In other words, genetic choice and enhancement technologies must be included in a national health insurance program.

Nanotechnology and artificial intelligence will also exacerbate inequality by contributing to structural unemployment through automation. Work will be increasingly unnecessary in the 21st century. If techno-optimists do not work to ameliorate structural unemployment through expansions in the welfare state, job retraining, establishing a shorter work-week and work-life, and a guaranteed social income, then we are likely to see the return of old-school Luddism, machine-smashing by the unemployed.

Fourth, monopolistic practices and overly restrictive intellectual property law can seriously delay the development of transhuman technologies, and restrict their access. Applications of intellectual property law that are over-generous to corporations may restrict access to information and tools in ways that slow innovation. By engaging with law and public policy, transhumanists can protect the public commons in biomedical information essential to the advance of science.

Fifth, only a strong liberal democratic state can ensure that posthumans are not persecuted. The posthuman future will be as threatening to unenhanced humans as gay rights or women’s liberation have been to patriarchs and homophobes, or immigrant rights are to nativists. While libertarian transhumanists may imagine that they will be able to protect themselves if they are well-armed and have superior reflexes, they will be severely outnumbered. Nor is civil war an attractive outcome. Rather transhumanists must understand their continuity with the civil rights movements of the past and work to build coalitions with sexual, cultural, racial and religious minorities to protect liberal democracy. We need a strong democratic state that protects the right of avantgarde minorities to innovate and experiment with their own bodies and minds.

Transhumanists must also come to some terms with congenial wing of the animal rights movement since, like animal rights, transhumanism is opposed to anthropocentrism. But rather than rights for all life, transhumanist ethics seeks to establish the solidarity of and citizenship for all intelligent life. Transhumanists look forward to a society in which humans, post-humans and intelligent non-humans are all citizens of the polity. Consistent with this would be the demands of the Great Ape Project for an extension of human level protections to the great apes.

Sixth, libertarian transhumanists are inconsistent in arguing for the free market. The dominant argument for the free market on the part of libertarian transhumanists comes from Hayek: that the market is a naturally evolved, emergent phenomenon without conscious guidance, which allocates resources better than planning. But the goal of transhumanism is precisely to supplant the natural with the planned, replacing chance with design. The key to transhumanism is faith in reason, not in nature.

In any case, the assertion that the market s naturally evolved while governance structures and polities are artificial impositions on nature is bad sociology. All functioning markets require norms, rules, laws, legislatures, police, courts and planning. All democratic polities require the action of millions of autonomous agents aggregating their interests, expressing themselves in voluntary behavior, and creating an emergent political system. The market is not any more natural than democracy, even if being “natural” was a transhumanist virtue.

### 1NC – Computation

#### Even if we invest in tech - life isn’t determined by cybernetics

Susen, 19—Reader in Sociology at the School of Arts and Social Sciences of City, University of London (Simon, “No escape from the technosystem?,” Philosophy & Social Criticism, October 9, 2019, dml)

A major irony of Feenberg’s book is the following contradiction: on several occasions, he criticizes, and distances himself from, technological determinism; key parts of his argument suggest, however, that he himself flirts with, if not subscribes to, technological determinism. He rightly maintains, and convincingly demonstrates, that ‘society and technology are inextricably imbricated’.240 This insight justifies the underlying assumption that there is no comprehensive study of society without a critical sociology of technology. Yet, to contend that ‘[s]ocial groups exist through the technologies that bind their members together’241 is misleading. For not all social groups are primarily defined by the technologies that enable their members to relate to, and to bond with, one another. Indeed, not all social relations, or social bonds, are based on, let alone determined by, technology. Of course, Feenberg is right to argue that ‘technologically mediated groups influence technical design through their choices and protests’.242 Ultimately, though, the previous assertion is tautological. This becomes clear if, in the above sentence, we replace the word ‘technological(ly)’ with terms such as ‘cultural(ly)’, ‘linguistical(ly)’, ‘political(ly)’, ‘economic(ally)’, or indeed another sociological qualifier commonly used to characterize the specificity of a social relation. Hence, we may declare that ‘culturally, linguistically, politically, and economically mediated groups influence cultural, linguistic, political, and economic conventions through their choices and protests’. In saying so, we are stating the obvious. If, however, we aim to make a case for cultural, linguistic, political, or economic determinism, then this is problematic to the extent that we end up reducing the constitution of social arrangements to the product of one overriding causal set of forces (whether these be cultural, linguistic, political, economic, technological, or otherwise). While declaring that he is a critic of technological determinism, Feenberg – in central passages of his book – gives the impression that he is one of its fiercest advocates. Feenberg’s techno-Marxist evolutionism is based on the premise that ‘progress is realized essentially through technosystem change’243 – that is, on the assumption that, effectively, human progress is reducible to technological development. Feenberg is right to stress that ‘[t]echnical progress is joined indissolubly to the democratic enlargement of access to its benefits and protection from its harms’.244 ‘Concretization’,245 understood in this way, conceives of progress as a ‘local, context-bound phenomenon uniting technical and normative dimensions’.246 We may add, however, that progress has not only technical (or technological) but also economic, cultural, and political dimensions, which contain objective, normative, and subjective facets. At times, the differentiation between these aspects is blurred, if not lost, in Feenberg’s account, given his tendency to overstate the power of technology at the expense of other crucial social forces. In other words, progress is not only ‘inextricably entangled with the technosystem’,247 but it is also indissolubly entwined with the economic, cultural, and political systems in which it unfolds and for (or against) which it exerts its objective, normative, and subjective power. The preceding reflection takes us back to the problem of techno-reductionism: The struggle over the technosystem began with the labor movement. Workers’ demands for health and safety on the job were public interventions into production technology.248 All struggles over social (sub)systems have not only a technological but also various other (notably economic, cultural, and political) dimensions. Demands made by particular subjects (defined by class, ethnicity, gender, age, or ability – or a combination of these sociological variables) are commonly expressed in public interventions not only into production technology, but also into economic, cultural, and political systems. In all social struggles (including class struggle), technology can be an important means to an end, but it is rarely an end in itself. Put differently, social struggles are partly – but seldom essentially, let alone exclusively – about technology.

### 1NC – Impact Turns

#### Computational entanglement solves crisis escalation.

Corneliu Bjola 19, Head of the Oxford Digital Diplomacy Research Group, University of Oxford, 11/10/19, “Diplomacy in the Age of Artificial Intelligence,” http://www.realinstitutoelcano.org/wps/portal/rielcano\_en/contenido?WCM\_GLOBAL\_CONTEXT=/elcano/elcano\_in/zonas\_in/ari98-2019-bjola-diplomacy-in-the-age-of-artificial-intelligence

Taking note of the fact that developments in AI are so dynamic and the implications so wide-ranging, another report prepared by a German think tank calls on Ministries of Foreign Affairs (MFAs) to immediately begin planning strategies that can respond effectively to the influence of AI in international affairs. Economic disruption, security & autonomous weapons, and democracy & ethics are the three areas they identify as priorities at the intersection of AI and foreign policy. Although they believe that transformational changes to diplomatic institutions will eventually be needed to meet the challenges ahead, they favour, in the short term, an incremental approach to AI that builds on the successes (and learns from the failures) of “cyber-foreign policy”, which, in many countries, has been already internalised in the culture of the relevant institutions, including of the MFAs.13 In the same vein, the authors of a report prepared for the Centre for a New American Security see great potential for AI in national security-related areas, including diplomacy. For example, AI can help improve communication between governments and foreign publics by lowering language barriers between countries, enhance the security of diplomatic missions via image recognition and information sorting technologies, and support international humanitarian operations by monitoring elections, assisting in peacekeeping operations, and ensuring that financial aid disbursements are not misused through anomaly detection.14

From an AI perspective, consular services could be a low-hanging fruit for AI integration in diplomacy as decisions are amenable to digitisation, the analytical contribution is reasonable relevant and the technology favours collaboration between users and the machine. Consular services rely on highly structured decisions, as they largely involve recurring and routinised operations based on clear and stable procedures, which do not need to be treated as new each time a decision has to be made (except for crisis situations, which are discussed further below). From a knowledge perspective, AI-assisted consular services may embody declarative (know-what) and procedural knowledge (know-how) to automate routinised operations and scaffold human cognition by reducing cognitive effort. This can be done by using data mining and data discovery techniques to organize the data and make it possible to identify patterns and relationships that would be difficult to observe otherwise (e.g., variation of demand for services by location, time, and audience profile).

Case study #1: AI as Digital Consul Assistant

The consulate of country X has been facing uneven demand for emergency passports, visa requests and business certifications in the past five years. The situation has led to a growing backlog, significant loss of public reputation and a tense relationship between the consulate and the MFA. An AI system trained with data from the past five years uses descriptive analytics to identify patterns in the applications and concludes that August, May and December are the most likely months to witness an increase of the demand in the three categories next year. AI predictions are confirmed for August and May but not for December. AI recalibrates its advice using updated data and the new predictions help consular officers manage requests more effectively. As the MFA confidence in the AI system grows, the digital assistant is then introduced to other consulates experiencing similar problems.

Digital platforms could also emerge as indispensable tools for managing diplomatic crises in the digital age and for good reasons. They can help embassies and MFAs make sense of the nature and gravity of the events in real-time, streamline the decision-making process, manage the public’s expectations, and facilitate crisis termination. At the same time, they need to be used with great care as factual inaccuracies, coordination gaps, mismatched disclosure level, and poor symbolic signalling could easily derail digital efforts of crisis management.15 AI systems could provide great assistance to diplomats in times of crisis by helping them make sense of what it is happening (descriptive analytics) and identify possible trends (predictive analytics). The main challenge for AI is the semi-structured nature of the decisions to be taken. While many MFAs have pre-designed plans to activate in case of a crisis, it is safe to assume that reality often defies the best crafted plans. Given the high level of uncertainty in which crisis decision-making operates and the inevitable scrutiny and demand of accountability to occur if something goes wrong, AI integration can work only if humans retain control over the process. As a recent SIPRI study pointed out, AI systems may fail spectacularly when confronted with tasks or environments that differ slightly to those they were trained for. Their algorithms are also opaque, which makes difficult for humans to explain how they work and whether they include bias that could lead to problematic –if not dangerous– behaviours.16

#### It prevents, rather than causing, endless warfare.

James Andrew Lewis 18, senior vice president at the Center for Strategic and International Studies, Ph.D. from the University of Chicago, January 2018, “Rethinking Cybersecurity: Strategy, Mass Effect, and States,” https://espas.secure.europarl.europa.eu/orbis/sites/default/files/generated/document/en/180108\_Lewis\_ReconsideringCybersecurity\_Web.pdf, p. 16-17

Cyber Operations and Interstate Conflict

International relations are being reshaped by the confluence of several powerful trends, some created by new technologies, some by the powerful reaction to American hegemony, and some from the fraying of the international order created after 1945. In contrast to sunny millennial optimism, efforts to improve cybersecurity must be designed for a period where, for an unknown duration, there will be increased conflict as states challenge the liberal postwar order. We are at the end of a sustained period of strategic stability17 and conflict, albeit at low levels, will be the norm. Conflict between states will take new forms and cyber operations will be an important part of this. They are ideal for the new strategic environment, given their opacity, the lack of clear norms, and inadequate defenses.

Opponent actions that stay below this threshold inhabit a "gray area," that is neither peace nor war, where the United States and its allies, unable to use military force in response, have so far been stymied in designing and articulated an effective reply. Opponents will exploit gray areas in international law to coerce without triggering armed conflict. Deterrence will be more difficult in this opaque environment, and we will see increased use by our opponents of coercive acts that fall below thresholds for the use of force or armed attack.

The future of armed conflict is that major powers will try to avoid armed confrontation. Wars between big, heavily armed states are expensive and risky, particularly if they have nuclear weapons. The major powers will not renounce the use of force and coercion—Russia, the United States, China, Iran, North Korea, and others use force or the threat of force all the time— but they will try to avoid war with each other. If major powers do stumble into conventional war, cyber attacks will be a part of the fighting, but the real nature of cyber conflict involves something other than warfare and lacks the sharp discontinuity between war and peace. The experience of the last decade suggests that the norm for interstate conflict will be increasingly continuous and not kinetic.

#### Externally solves global environmental sustainability -- extinction.

David Victor 19, professor of international relations at the School of Global Policy and Strategy and director of the Laboratory on International Law and Regulation, Co-Chair of the Brookings Initiative on Energy and Climate, 1/10/19, “How artificial intelligence will affect the future of energy and climate,” https://www.brookings.edu/research/how-artificial-intelligence-will-affect-the-future-of-energy-and-climate/

HOW AI WILL IMPROVE CLIMATE POLICY

Since the chief protagonist in the climate change story, CO2, has a long atmospheric lifetime, there is only a sluggish relationship between changes in emissions and the accumulated concentrations; in turn, those concentrations have a sluggish impact on the climate. Even if AI were part of some massive transformation in the energy system, the built-in inertia of that energy system, along with the inertia in the climate system, virtually guarantees that the world is in for a lot of climate change. All this is grim news and means that widely discussed goals, such as stopping warming at 1.5 or 2 degrees Celsius are unlikely to be realized.

These geophysical and infrastructural realities give rise to a new policy reality: adaptation is urgent.[7] They also mean that emergency responses to extreme climate impacts—for example, solar geoengineering, might be needed as well.

Existing research shows that there is a huge difference in the impact on public welfare from scenarios where climate change affects a society that doesn’t have an adaptation plan compared with a society that takes active adaptive measures. For example, the most recent U.S. climate-impact assessment released in November 2018 demonstrates that active adaptation measures can radically reduce losses from some climate impacts—often with benefits that far exceed the costs.[8] Extreme climate change is going to be ugly and will require hard choices—such as which coastlines to protect or abandon. Without smart adaptation strategies, it will be a lot worse.

One of the central insights from the science of climate impacts is that extreme events will cause most of the damage. A world that is a bit warmer and wetter (and a bit drier in some places) is a world that societies, within reason, can probably adapt to—especially if those gradual changes are easy to anticipate. But a world that has more extreme events—put differently, climate events that have a higher variance—is a world that requires a lot more preparedness. A farming area that faces a new, significant risk of truly extreme drought for example, such as a decade-long dust bowl, will need to prepare as if that extreme event is commonplace. It will need irrigation systems, the option of planting hardier crops and other possible interventions that sit ready when the extreme events come.

Once those systems are purchased, much of the expense is borne and it makes sense to use them all the time. This has been the experience, for example, with the Thames river barrier or a similar Dutch flood barrier—these systems were designed and installed at vast expense with extreme events in mind, and now they are being used much more frequently. Climate impacts are, fundamentally, stochastic events centered around shifting medians—a warmer world, for example, is one where median temperature rises and where the whole distribution of temperatures from cold to hot shifts hotter. But the tails in that statistical distribution also probably fatten, and for some impacts, those tails get a lot fatter. Machine learning techniques will probably improve the ability to understand the shapes of those tails.

This logic of extreme events as the main drivers of climate impacts and response strategies has some big implications for how societies will plan for adaptation and how AI can help—possibly in transformative ways.

First, AI can help focus and adjust adaptation strategies. Because uncertainty is high and extreme events are paramount, policymakers, firms, and households will not know where to act nor what expense is merited. They will have a large portfolio of responses, each with an option value. Machine learning can help improve the capacity to assess those option values more rapidly. Such techniques might also make it possible to rely more heavily on market forces to weigh which options generate private and public welfare—if so, AI could help reduce one of the greatest dangers as societies develop adaptation strategies, which is that they commit vast resources to adaptation without guiding resources to their greatest value. High levels of uncertainty, along with acute private incentives that can mis-allocate resources—for example, local construction firms and organized labor might favor some kinds of adaptive responses (e.g., building sea walls and other hardened infrastructure) even when other less costly options are available—mean that adaptation needs could generate a massive call on resources and thus a massive opportunity for mischief and mis-allocation.

Second, most adaptation efforts are intrinsically local and regional affairs. As a matter of geophysics, climate change harms public welfare when general perturbations in the oceans and atmosphere get translated into specific climatological events that are manifest in specific places—specific coastlines, mountainous regions, public lands, and natural ecosystems. As a matter of public policy, the actors whose responses have the biggest leverage on local impacts are managers of local infrastructures—coastal and urban planners, developers, city managers, and the like. Politically, this is one of the reasons why, despite all the difficulties in mobilizing action to control emissions, it is likely that as communities realize what’s at stake with adaptation, they will respond. Local responses generate, for the most part, local benefits. A big challenge in all this local response, however, is that local authorities are intrinsically decentralized and usually not steeped in technical expertise. Getting the best information on climate impacts and response strategies—let alone keeping that information aligned with local circumstances and shifting odds for climate impacts—is all but impossible. AI could help lower that cost and, in effect, democratize quality climate impacts response.

#### Informatization of war reduces violence.

Thomas Rid 13, THOMAS RID is a Reader in War Studies at King’s College London, 12-1-2013, "Cyberwar and Peace," Foreign Affairs, https://www.foreignaffairs.com/articles/2013-10-15/cyberwar-and-peace

Cyberwar Is Coming!” declared the title of a seminal 1993 article by the RAND Corporation analysts John Arquilla and David Ronfeldt, who argued that the nascent Internet would fundamentally transform warfare. The idea seemed fanciful at the time, and it took more than a decade for members of the U.S. national security establishment to catch on. But once they did, a chorus of voices resounded in the mass media, proclaiming the dawn of the era of cyberwar and warning of its terrifying potential. In February 2011, then CIA Director Leon Panetta warned Congress that “the next Pearl Harbor could very well be a cyberattack.” And in late 2012, Mike McConnell, who had served as director of national intelligence under President George W. Bush, warned darkly that the United States could not “wait for the cyber equivalent of the collapse of the World Trade Centers.” Yet the hype about everything “cyber” has obscured three basic truths: cyberwar has never happened in the past, it is not occurring in the present, and it is highly unlikely that it will disturb the future. Indeed, rather than heralding a new era of violent conflict, so far the cyber-era has been defined by the opposite trend: a computer-enabled assault on political violence. Cyberattacks diminish rather than accentuate political violence by making it easier for states, groups, and individuals to engage in two kinds of aggression that do not rise to the level of war: sabotage and espionage. Weaponized computer code and computer-based sabotage operations make it possible to carry out highly targeted attacks on an adversary’s technical systems without directly and physically harming human operators and managers. Computer-assisted attacks make it possible to steal data without placing operatives in dangerous environments, thus reducing the level of personal and political risk. These developments represent important changes in the nature of political violence, but they also highlight limitations inherent in cyberweapons that greatly curtail the utility of cyberattacks. Those limitations seem to make it difficult to use cyberweapons for anything other than one-off, hard-to-repeat sabotage operations of questionable strategic value that might even prove counterproductive. And cyber-espionage often requires improving traditional spycraft techniques and relying even more heavily on human intelligence. Taken together, these factors call into question the very idea that computer-assisted attacks will usher in a profoundly new era. THE THIN CASE FOR CYBERWAR One reason discussions about cyberwar have become disconnected from reality is that many commentators fail to grapple with a basic question: What counts as warfare? Carl von Clausewitz, the nineteenth-century Prussian military theorist, still offers the most concise answer to that question. Clausewitz identified three main criteria that any aggressive or defensive action must meet in order to qualify as an act of war. First, and most simply, all acts of war are violent or potentially violent. Second, an act of war is always instrumental: physical violence or the threat of force is a means to compel the enemy to accept the attacker’s will. Finally, to qualify as an act of war, an attack must have some kind of political goal or intention. For that reason, acts of war must be attributable to one side at some point during a confrontation. No known cyberattack has met all three of those criteria; indeed, very few have met even one. Consider three incidents that today’s Cassandras frequently point to as evidence that warfare has entered a new era. The first of these, a massive pipeline explosion in the Soviet Union in June 1982, would count as the most violent cyberattack to date -- if it actually happened. According to a 2004 book by Thomas Reed, who was serving as a staffer on the U.S. National Security Council at the time of the alleged incident, a covert U.S. operation used rigged software to engineer a massive explosion in the Urengoy-Surgut-Chelyabinsk pipeline, which connected Siberian natural gas fields to Europe. Reed claims that the CIA managed to insert malicious code into the software that controlled the pipeline’s pumps and valves. The rigged valves supposedly resulted in an explosion that, according to Reed, the U.S. Air Force rated at three kilotons, equivalent to the force of a small nuclear device. But aside from Reed’s account, there is hardly any evidence to prove that any such thing happened, and plenty of reasons to doubt that it did. After Reed published his book, Vasily Pchelintsev, who was reportedly the KGB head of the region when the explosion was supposed to have taken place, denied the story. He surmised that Reed might have been referring to a harmless explosion that happened not in June but on a warm April day that year, caused by pipes shifting in the thawing ground of the tundra. Moreover, no Soviet media reports from 1982 confirm that Reed’s explosion took place, although the Soviet media regularly reported on accidents and pipeline explosions at the time. What’s more, given the technologies available to the United States at that time, it would have been very difficult to hide malicious software of the kind Reed describes from its Soviet users. Another incident often related by promoters of the concept of cyberwar occurred in Estonia in 2007. After Estonian authorities decided to move a Soviet-era memorial to Russian soldiers who died in World War II from the center of Tallinn to the city’s outskirts, outraged Russian-speaking Estonians launched violent riots that threatened to paralyze the city. The riots were accompanied by cyber-assaults, which began as crude disruptions but became more sophisticated after a few days, culminating in a “denial of service” attack. Hackers hijacked up to 85,000 computers and used them to overwhelm 58 Estonian websites, including that of the country’s largest bank, which the attacks rendered useless for a few hours. Estonia’s defense minister and the country’s top diplomat pointed their fingers at the Kremlin, but they were unable to muster any evidence. For its part, the Russian government denied any involvement. In the wake of the incident, Estonia’s prime minister, Andrus Ansip, likened the attack to an act of war. “What’s the difference between a blockade of harbors or airports of sovereign states and the blockade of government institutions and newspaper websites?” he asked. It was a rhetorical question, but the answer is important: unlike a naval blockade, the disruption of websites is not violent -- indeed, not even potentially violent. The choice of targets also seemed unconnected to the presumed tactical objective of forcing the government to reverse its decision on the memorial. And unlike a naval blockade, the attacks remained anonymous, without political backing, and thus unattributable. A year later, a third major event entered the cyber-Cassandras’ repertoire. In August 2008, the Georgian army attacked separatists in the province of South Ossetia. Russia backed the separatists and responded militarily. The prior month, in what might have been the first time that an independent cyberattack was launched in coordination with a conventional military operation, unknown attackers had begun a campaign of cyber-sabotage, defacing prominent Georgian websites, including those of the country’s national bank and the Ministry of Foreign Affairs, and launching denial-of-service attacks against the websites of Georgia’s parliament, its largest commercial bank, and Georgian news outlets. The Georgian government blamed the Kremlin, just as the Estonians had done. But Russia again denied sponsoring the attacks, and a NATO investigation later found “no conclusive proof” of who had carried them out. The attack set off increasingly familiar alarm bells within American media and the U.S. national security establishment. “The July attack may have been a dress rehearsal for an all-out cyberwar,” an article in The New York Times declared. Richard Clarke, a former White House cybersecurity czar, warned that the worst was yet to come: the Georgian attack did not “begin to reveal what the Russian military and intelligence agencies could do if they were truly on the attack in cyberspace.” Yet the actual effects of these nonviolent events were quite mild. The main damage they caused was to the Georgian government’s ability to communicate internationally, thus preventing it from getting out its message at a critical moment. But even if the attackers intended this effect, it proved short-lived: within four days after military confrontations had begun in earnest, the Georgian Foreign Ministry had set up an account on Google’s blog-hosting service. This move helped the government keep open a channel to the public and the news media. What the Internet took away, the Internet returned. ISTOCK.COM / -ANTONIO- Overblown: keyboard as grenade. IN CODE WE TRUST? Perhaps the strongest evidence presented by advocates of the concept of cyberwar is the Stuxnet operation launched against Iran by the United States and Israel. Stuxnet, part of a set of attacks known as Operation Olympic Games, was a sophisticated multiyear campaign to sabotage Iran’s nuclear enrichment facility in Natanz by inserting a harmful computer worm into the software that ran the facility’s centrifuges, causing them to overload. American and Israeli developers started designing the project as early as 2005, and it launched in 2007, growing more sophisticated until its discovery in 2010. The attack was groundbreaking in several ways. The developers built highly target-specific intelligence into the code, enabling the Stuxnet software to make autonomous decisions in its target environment. Most important, Stuxnet represented the first and only physically destructive cyberattack launched by one state (or, in this case, two states) against another. Yet even cyberattacks that cause damage do so only indirectly. As an agent of violence, computer code faces a very basic limit: it does not have its own force or energy. Instead, any cyberattack with the goal of material destruction or harming human life must utilize the force or energy embedded in its target: for example, shutting down an air traffic control system and causing trains or planes to crash or disrupting a power plant and sparking an explosion. Yet besides Stuxnet, there is no proof that anyone has ever successfully launched a major attack of this sort. Lethal cyberattacks, while certainly possible, remain the stuff of fiction: none has ever killed or even injured a single human being. Thanks to its lack of direct physical impact, code-induced violence also has less emotional impact. It would be difficult for a cyberattack to produce the level of fear that coordinated campaigns of terrorism or conventional military operations produce. Owing to their invisibility, cyberweapons also lack the symbolic power of traditional ones. Displays of weaponry, such as the elaborate military parades put on by China and North Korea, sometimes represent nothing more than nationalist pageantry. But revealing one’s arsenal can also serve tactical and strategic ends, as when countries deploy aircraft carriers to demonstrate their readiness to use force or carry out operations designed to intimidate the enemy, such as using military aircraft to conduct deliberately low flyovers. Indeed, displaying weapons systems and threatening to use them can prove more cost-efficient than their actual use. But cyberweapons are hard to brandish. Perhaps the most crucial limitation of violence in cyberspace is its almost entirely destructive quality: unlike traditional political violence, which can maintain trust in institutions and states as well as undermine it, violence in cyberspace can do only the latter. Any established political order comes with a certain degree of inherent violence; consolidated states, after all, survive only if they maintain monopolies on the legitimate use of force. By encouraging trust in the ability of state institutions to protect property and safeguard citizens, this inherent violence buttresses a state’s power and allows the state to establish the rule of law. But cyber-violence lacks this ability, since it does little or nothing to build up trust in institutions; indeed, it is very difficult to imagine how cyberattacks could be used to enforce rules or laws, either domestically or internationally. Digital surveillance presents a more complicated picture. In democracies, intelligence agencies tread a thin line between providing security and eroding public trust in the state, as demonstrated by the recent controversy over the U.S. National Security Agency’s data-collection practices. In authoritarian countries, digital surveillance can assist the state’s coercive use of force, but it cannot replace it. Such limitations, however, should not lead anyone to dismiss the corrosive potential of cyberattacks. Indeed, such assaults can undermine social trust in a more direct way than traditional political violence. Cyberattacks are more precise; they do not necessarily undermine the state’s monopoly of force in a wholesale fashion. Instead, they can be tailored to attack specific companies or public-sector organizations and used to undermine those groups’ authority selectively. Stuxnet provides a good example of this dynamic. Putting aside the question of whether the attack was an act of war, its primary intention was to undermine the trust of the Iranian scientists in their systems and in themselves and the trust of the Iranian regime in its ability to build nuclear weapons. The original intention was to cause physical damage to as many Iranian centrifuges as possible. But the American and Israeli attackers knew that the physical effect could be exploited to unleash a much more damaging psychological effect. “The intent was that the failures should make them feel they were stupid, which is what happened,” an American participant told The New York Times. The Americans and the Israelis hoped that once a few machines failed, the Iranian engineers would shut down more machines because they distrusted their own technology or indeed their own skills. At the headquarters of the International Atomic Energy Agency, in Vienna, rumors circulated that the Iranians had lost so much confidence in their own systems and instruments that the management of the Natanz facility took the extraordinary step of assigning engineers to sit in the plant and radio back what they saw to confirm the instrument readings. “They overreacted,” one of the attackers revealed to David Sanger of The New York Times, “and that delayed them even more.” The Iranians also began to assign blame internally, pointing fingers at one another and even firing some personnel. DIGITAL UNDERGROUND Damaging though it may have been, Stuxnet, along with the cyber-scuffles in Estonia and Georgia, represents not a new form of warfare but something more akin to other, less lethal forms of aggression: sabotage and espionage. Unlike acts of war, these political crimes, which are often committed by nonstate actors, need not be violent to work. And although saboteurs and spies do act politically, they often seek to avoid attribution, unlike those who launch acts of war. For those reasons, the cyber-era has been a boon for political crime. Consider sabotage. Before the computer age, saboteurs had trouble calibrating and controlling the effects of their actions. Sabotage had to target physical property and relied on physical violence, which often proves unpredictable. During postal and railway strikes in France in 1909 and 1910, for instance, saboteurs cut signal wires and tore down telegraph posts. Destroying property risked running afoul of public opinion, and the tactic ultimately divided the workers. The strikes themselves, as a form of sabotage, also ran the risk of leading to unpredictable violence: indeed, labor demonstrations often intensified into riots, making it easier for opponents to portray the strikers as uncompromising radicals. It is much easier for saboteurs to avoid counterproductive side effects in the age of computer-assisted attacks, which can contain violence and generally avoid it altogether. Cyberattacks can maliciously affect software and business processes without interfering with physical industrial processes, remaining nonviolent but sometimes still causing greater damage than a traditional assault. A 2012 attack against the computer network of the oil company Saudi Aramco illustrates this potential. The attack physically harmed neither hardware nor humans. Yet by allegedly erasing the hard disks of some 30,000 computers, the attackers likely did much more monetary damage to Saudi Aramco than they could have through an act of traditional sabotage against machinery in one of the company’s plants. The oil giant reportedly had to hire six specialized computer security firms to help with its forensic investigation and post-attack cleanup. Despite such potential, it is also important to remember the inherent limitations of computer-assisted political crime and to note that human agents remain critical in the age of digital violence. Even Stuxnet, the most successful example of cyber-sabotage, demonstrates this fact. For the United States and Israel, the “holy grail,” in the words of one of the attack’s architects, was getting a piece of malicious software into the control system at Natanz. The Americans and Israelis needed fine-grained data from inside the Iranian plant to develop their weaponized code. The problem was that the control system was protected by an air gap: it was not connected to the Internet or even internal networks. As a result, the attackers had to deliver the malicious code via a removable hard drive such as a USB flash drive -- delivered by a human hand. To make this happen, U.S. intelligence operatives first obtained a list of the people who were visiting the targeted plant to work on its computer equipment and who could carry the payload there. “We had to find an unwitting person on the Iranian side of the house who could jump the gap,” one planner later told Sanger. The list of possible carriers included engineers from the German company Siemens, who were helping their Iranian colleagues maintain the control system -- work that required the Siemens engineers to bring portable computers into the plant. Precisely how the U.S.-Israeli team managed to exploit this vulnerability remains unknown. Suffice it to say that although “Siemens had no idea they were a carrier,” in the words of one U.S. official quoted by Sanger, “it turns out there is always an idiot around who doesn’t think much about the thumb drive in their hand.” SAFETY IN ONES AND ZEROS If cyberattacks reduce the amount of violence inherent in conflict, and if they often take the form of sabotage or espionage, then many officials and commentators who have been warning about the dawn of cyberwar have been ringing false alarms. Digital violence does have implications for ethics and for national security strategy, however. Weaponized code, or cyberattacks more generally, can achieve goals that used to require conventional force. The most sophisticated cyberattacks are highly targeted, and cyberweapons are unlikely to cause collateral damage in the same way conventional weapons do. Therefore, in many situations, the use of computers would be ethically preferable to the use of conventional weapons: a cyberattack might be less violent, less traumatizing, and more limited.

1. [MBA(Alan,ActingonActivism,[http://home.montgome... 17-2005).doc)]](http://home.montgomerybell.edu/~coversa/Acting%20on%20Activism%20(Nov%2017-2005).doc)%5D)

   An important concern emerges when Mitchell describes reflexive fiat as a contest strategy capable of â€œeschewing the power to directly control external actorsâ€ (1998b, p. 20). [↑](#footnote-ref-1)