# T

#### Interp: Affirmatives must only defend the implementation of a law that restricts appropriation of outer space by private entities.

#### This does not require the use of any particular style, type of evidence, or assumption about the role of the judge — only that the *topic* should determine the debate’s subject matter.

#### “Resolved” means enactment of a law.

Words and Phrases 64 Words and Phrases Permanent Edition (Multi-volume set of judicial definitions). “Resolved”. 1964.

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”.**

#### Violation – [they don’t defend the implementation of a law]

#### Switch side debate – critiques of liberalism and performance can be read on the neg – solves dogmatism by testing different viewpoints

**Vote Neg – The resolution is the only common stasis point that anchors negative preparation. Allowing any aff deviation from the resolution is a moral hazard which justifies an infinite number of unpredictable arguments with thin ties to the resolution. Because debate is a competitive game, their interpretation incentivizes affirmatives to run further towards fringes and revert to truisms which are exceedingly difficult to negate—this asymmetry is compounded by their monopoly on preparation**

#### That outweighs – The competitive incentive from debate creates pressures for research and focused clash which generates important skills and makes debate a training ground for future work. The impact Successful movement organizing is analogous to mainstream politics – it requires skilled organization, negotiating relationships, strategic leadership, and proto-institutionalism – sacrificing debate as training ensures we never translate opinion into political power, but requiring the aff defend contestable positions linearly increases debate’s capacity for movement advocacy as they get more predictable

Han and Barnett-Loro 18 [Hahrie Han, Department of Political Science, University of California, Santa Barbara. Carina Barnett-Loro, Climate Advocacy Lab, San Francisco. To Support a Stronger Climate Movement, Focus Research on Building Collective Power. December 19, 2018. https://www.frontiersin.org/articles/10.3389/fcomm.2018.00055/full]

Building public will to address the climate crisis requires more than shifting climate change opinion or engaging more people in activism (Raile et al., 2014). By many measures, the climate movement today is stronger than ever: more people taking actions, more financial resources, and deeper concern. Nonetheless, despite increasingly widespread popular demand for sensible climate solutions (Leiserowitz et al., 2017; Hestres and Nisbet, 2018) and broad organizational infrastructure to support climate activism across most Westernized democracies (Brulle, 2014), public will that translates into the political power needed to effect meaningful change has been elusive (McAdam, 2017). Even the 2014 and 2017 People's Climate Marches that drew hundreds of thousands to the streets, demonstrations in support of the Paris Climate Accords, and large-scale acts of civil disobedience in opposition to the Keystone XL and Dakota Access pipelines have resulted in only short-lived campaign victories. Nearly 10 years after the failure to pass comprehensive climate and clean energy legislation at the federal level, experts largely agree there is “little hope” existing policies are sufficient to address the scale of the crisis (Keohane and Victor, 2011).

How can research help bridge the gap not only between opinion and action, but also between action and power? Many articles in this special edition examine the question of the conditions that make it more likely individuals will take action around climate issues. Indeed, the gap between opinion and action is well-known (Kahan and Carpenter, 2017), and burgeoning research in many fields of social science seeks to bridge it (Rickard et al., 2016; Doherty and Webler, 2016; Feldman and Hart, 2018). One of us works for the Climate Advocacy Lab, which supports field experimentation through direct funding and in-kind research assistance to build our collective understanding of the most effective strategies for moving people into action.

There is less attention, however, to the question of how those actions might translate into political influence. The challenge is this: in most cases, the null assumption is that activism becomes power at scale: that collective action is merely the sum of its parts, and the more people who take action, the more likely a movement is to achieve its goals. All things being equal, it is true that more is better (Madestam et al., 2013). Additional research, however, shows that for our stickiest social problems (like climate change), simply having more activists, money, or other resources is not sufficient to create and sustain the kind of large-scale change needed (Baumgartner et al., 2009; Canes-Wrone, 2015). Instead, we need a social movement that translates our actions into power. Social movements are a set of “actors and organizations seeking to alter power deficits and to effect transformations through the state by mobilizing regular citizens for sustained political action” (Amenta et al., 2010). Instead of focusing only on resources, movements focus on power. Instead of focusing only on individual action, they focus on collective action. To become a source of power, collective action must be transformative.

How, then, do we build the kind of movements that generate the collective action necessary to shift existing power dynamics? For scholars, what research can help advocates understand how to translate individual actions into the powerful, and transformative collective action necessary to create change? To examine this question, we co-hosted a conference that brought social scientists together with climate advocates in the United States. At this convening, movement leaders argued that to better support building a robust climate movement, research should move beyond traditional public opinion, communications, messaging, and activism studies toward a greater focus on the strategic leadership and collective contexts that translate opinion and action into political power. This paper thus offers a framework, described in Table 1, for synthesizing existing research on movement-building and highlighting the places where additional research is needed. We hope this framework can help focus more future research on the collective, relational contexts and strategic leadership choices necessary to generate collective action that translates into power. In describing the framework, we draw on Slater and Gleason's (2012) typology to show what we know and do not know about supporting movement actors seeking to make more impactful choices.

Assessing the State of Research on Climate Movement Building

How do movement leaders translate supportive public opinion and grassroots activism into political influence? Answering this question rests on first understanding a few key points about social movements. First, movements operate in an environment of uncertainty. For the climate movement, everything from oil spills to hurricanes, domestic elections to international treaties, legal decisions, and market forces can affect the terrain they must navigate. Movement leaders cannot directly control many of these things. Second, policy change is not power. A given policy change will not automatically effect change in the world consistent with movement interests (Hacker, 2004). Moreover, policies can be easily overturned, as exemplified by the transition from Obama to Trump, and immediate rollback of key policies including the Clean Power Plan, restrictions on drilling and mining on public lands, and coal ash protections. To create lasting power, movements need broad constituencies that persist through the ups and downs and whims of different administrations. Third, there is no direct line from activism to power, because power is a dynamic relationship between movements and their targets. To wield power, movements use their resources to act on the interests of political decision-makers (Hansen, 1991). In fact, some research suggests the advocacy group resources most predictive of large-scale policy change are relationships with decision-makers—more so than lobbying money, campaign contributions, or the number of grassroots members (Baumgartner et al., 2009). Some argue that the climate movement's failure to build and sustain the kind of constituency that would pressure decision-makers contributed to the failure of cap-and-trade legislation in 2010 (Skocpol, 2013).

Given these three factors—persistent uncertainty, the need to focus on power not policy, and the complex interests of movement targets—what are the questions movement leaders need to answer to build a more effective climate movement? We argue that most research has focused either on documenting trends in the political environment in which movements work or on questions of how the movement can focus on building more of its resources (such as more supportive public opinion or more activists). Those questions are important. Particularly in today's uncertain, dynamic political environment, however, we also need research on strategy: how do movements create the leadership capacities and organizational (or “meso-level”) conditions needed to navigate uncertain political situations and shifting relationships, and thus translate resources to power?

Organizations that have successfully wielded power in other issue areas can be instructive in showing why understanding strategic leadership and meso-level, collective contexts matters. Consider the gun debate in the United States. Polls show strong public support for stricter regulation of guns, advocates like Michael Bloomberg have poured hundreds of millions of dollars into the fight, and protests have brought millions of people into the streets for gun control. Nonetheless, the National Rifle Association (NRA) has been more effective in translating its activists and resources into political power. Why? First, leaders within the NRA undertook an intentional campaign to build an ardent constituency of gun owners that was willing to stand together, again and again, through ups and downs of any political fight, to support gun rights. As recently as the early 1970s, the NRA supported sensible gun regulations. Beginning in the 1970s, however, a group of hardline conservatives took control of leadership of the organization (Melzer, 2009). To build constituency, they used three key tactics: widespread benefits provided to gun owners from the national organization, strong appeals to identity, and a complex latticework of interpersonal relationships sustained at the local level (LaCombe, forthcoming). Second, leaders strategically leveraged this constituency to negotiate relationships with the Republican Party. The recurrent ability of leaders to deliver support from this constituency for policymakers became the basis through which the NRA built high-level relationships with elected officials and the Republican Party, thus cementing its hold over gun policy in the United States. By linking base-building with elite politics, the NRA transformed the political dynamics around gun rights.

#### Debate doesn’t have any effect on the political and the individual arguments we read have no effect on our subjectivity, even if they spur immediate reflection, those insights aren’t integrated into deep-stored memory—this means you can vote negative on presumption. Encouraging focused, nuanced research and clash is the only chance to change attitudes long term—which means they can’t solve their impact turns but our model can.

#### filter their impacts through predictable testability ---debate inherently judges relative truth value by whether or not it gets answered---a combination of a less predictable case neg, the burden of rejoinder, and them starting a speech ahead will always inflate the value of their impacts, which makes non-arbitrarily weighing whether they should have read the 1ac in the first place impossible within the structure of a debate round so even if we lose framework, vote neg on presumption. They also create a moral hazard that leads to affs only about individual self-care so even if you think this aff is answerable, the ones they incentivize are not, so assume the worst possible affirmative when weighing our impacts.

**No RVIs – this includes impact turns and independent voting issues –**

**1 – exclusions are inevitable – we only have 45 minutes to discuss things – doesn’t prove harmful intent**

**2 – T is an aff burden – doesn’t justify them winning**

**3 – forces unreasonable standard of epistemic perfection – bad arguments should be rejected, but that doesn’t implicate the team**

# Innovation DA

### 1NC

#### U.S. leads innovation globally but it’s on the brink

Khan 19 [Dr. Mehmood Khan, chair of the U.S. Council on Competitiveness and Vice Chairman and Chief Scientific Officer for Global Research & Development, PepsiCo. “Maintaining U.S. Leadership in Science and Technology.” 3/18/19. https://insight.ieeeusa.org/articles/maintaining-u-s-leadership-in-science-and-technology/]

Can the U.S. Compete?

We are seeing changes in technology, competition and the global economy, historic in terms of their size, speed and scope. The U.S. faces hyper competition, a potential new global superpower competitor in China, and the prospect of economic and social disruption brought about by the unrelenting and accelerating march of technology. Nevertheless, in a global economy ever more driven by technology and innovation, an enabling environment for innovation remains the advantage of only a few economies, with the United States in a position of significant strength:

The U.S. remains the world’s epicenter for disruptive innovation, thanks to its exceptional research infrastructure and low barriers to entrepreneurs and start-ups.

The U.S. remains the world leader in high-tech manufacturing. It has a 31-percent global share and its output is growing. China is closing the gap with a 24-percent share and its output is also growing, surpassing Japan and the EU.

The U.S. remains the world’s largest investor in R&D for 28 percent of global R&D spending. It now invests half a trillion in R&D per year and has built up a globally unparalleled national stock of science and technology.

Because the U.S. is by far the world’s largest innovator in basic research, it dominates patenting, sowing the seeds of future innovation, representing about one quarter of all international patent applications filed in 2016.

The U.S. has distinctive assets – its national laboratories and top research universities.

In the U.S. innovation ecosystem, industry, start-ups, national labs and universities collaborate on R&D across the spectrum of science and technology.

Vast amount of venture capital is pouring in to commercialize advanced technologies.

The U.S. is seen as the global technology leader. A recent survey asked researchers across the world which country they considered to be the global leader in 12 advanced industries. The U.S. was named most often in 11 of the 12 industries.

Despite these significant U.S. strengths, the competitiveness of a wide range of nations – not to mention economic and technological change – is dynamic and ever transforming. A country’s comparative position can change rapidly.

Conclusion

The United States is at a critical moment in time in national innovation systems research and action. New, transformational models driven by the democratization and self-organization of innovation are emerging and taking root across the nation. But, at the same time, U.S. leadership is under threat. The United States faces now what are perhaps existential challenges to its global leadership in innovation. America’s role in technology advancement is diminishing globally—now accounting for only one-quarter of global research & development investments, down from two-thirds in 1960. Competitors are increasing their capacity for innovation. And rapid technological change and disruption have impacted the workforce and communities.

When the U.S. controlled the direction of technology, we were positioned to control our economic destiny. That is no longer guaranteed. The United States must take stock. We must assess if our innovation ecosystems and investments are enough to maintain our global economic and technological leadership. And, as technology seeps into nearly every aspect of American life, our national leaders and our government at every level must bolster their knowledge and response capabilities to match the strengthening competition, technological change and disruptions that are coming.

#### Strong commercial space catalyzes tech innovation – progress at the margins and spinoff tech change global information networks

Joshua Hampson 2017, Security Studies Fellow at the Niskanen Center, 1-25-2017, “The Future of Space Commercialization”, Niskanen Center, https://republicans-science.house.gov/sites/republicans.science.house.gov/files/documents/TheFutureofSpaceCommercializationFinal.pdf

Innovation is generally hard to predict; some new technologies seem to come out of nowhere and others only take off when paired with a new application. It is difficult to predict the future, but it is reasonable to expect that a growing space economy would open opportunities for technological and organizational innovation. In terms of technology, the difficult environment of outer space helps incentivize progress along the margins. Because each object launched into orbit costs a significant amount of money—at the moment between $27,000 and $43,000 per pound, though that will likely drop in the future —each 19 reduction in payload size saves money or means more can be launched. At the same time, the ability to fit more capability into a smaller satellite opens outer space to actors that previously were priced out of the market. This is one of the reasons why small, affordable satellites are increasingly pursued by companies or organizations that cannot afford to launch larger traditional satellites. These small 20 satellites also provide non-traditional launchers, such as engineering students or prototypers, the opportunity to learn about satellite production and test new technologies before working on a full-sized satellite. That expansion of developers, experimenters, and testers cannot but help increase innovation opportunities. Technological developments from outer space have been applied to terrestrial life since the earliest days of space exploration. The National Aeronautics and Space Administration (NASA) maintains a website that lists technologies that have spun off from such research projects. Lightweight 21 nanotubes, useful in protecting astronauts during space exploration, are now being tested for applications in emergency response gear and electrical insulation. The need for certainty about the resiliency of materials used in space led to the development of an analytics tool useful across a range of industries. Temper foam, the material used in memory-foam pillows, was developed for NASA for seat covers. As more companies pursue their own space goals, more innovations will likely come from the commercial sector. Outer space is not just a catalyst for technological development. Satellite constellations and their unique line-of-sight vantage point can provide new perspectives to old industries. Deploying satellites into low-Earth orbit, as Facebook wants to do, can connect large, previously-unreached swathes of 22 humanity to the Internet. Remote sensing technology could change how whole industries operate, such as crop monitoring, herd management, crisis response, and land evaluation, among others. 23 While satellites cannot provide all essential information for some of these industries, they can fill in some useful gaps and work as part of a wider system of tools. Space infrastructure, in helping to change how people connect and perceive Earth, could help spark innovations on the ground as well. These innovations, changes to global networks, and new opportunities could lead to wider economic growth.

#### Short innovation cycles mean every contract counts

John J. Klein 19, Senior Fellow and Strategist at Falcon Research Inc. and adjunct professor at the George Washington University Space Policy Institute, 1-15-2019, "Rethinking Requirements and Risk in the New Space Age," Center for a New American Security, https://www.cnas.org/publications/reports/rethinking-requirements-and-risk-in-the-new-space-age

Unfortunately, these variances in models between the MDAP’s lengthy development cycle and the commercial space sector’s 18-month innovation cycle are a result of stark differences in thinking about requirements and risk. Requirements and risk for MDAPs commonly focus on ensuring critical mission capabilities at a given cost. In contrast, the commercial space sector tends to focus more on providing innovation quickly using economies of scale. The commercial sector understands that time dynamically shapes decisions related to requirements and risk because of the relatively short innovation cycle. In a highly competitive space sector with tight profit margins, those unable to innovate quickly will likely be out of business soon. Alternatively, space systems with mission assurance requirements – where failures are detrimental to national security and military operations – often drive DoD’s timelines. Program managers of critical national security space systems commonly require additional time to test and verify that satellites can perform missions with a very low probability of failure.

#### Tech innovation solves every existential threat – cumulative extinction events outweigh the aff

Dylan **Matthews 18**. Co-founder of Vox, citing Nick Beckstead @ Rutgers University. 10-26-2018. "How to help people millions of years from now." Vox. https://www.vox.com/future-perfect/2018/10/26/18023366/far-future-effective-altruism-existential-risk-doing-good

If you care about improving human lives, you should overwhelmingly care about those quadrillions of lives rather than the comparatively small number of people alive today. The 7.6 billion people now living, after all, amount to less than 0.003 percent of the population that will live in the future. It’s reasonable to suggest that those quadrillions of future people have, accordingly, hundreds of thousands of times more moral weight than those of us living here today do. That’s the basic argument behind Nick Beckstead’s 2013 Rutgers philosophy dissertation, “On the overwhelming importance of shaping the far future.” It’s a glorious mindfuck of a thesis, not least because Beckstead shows very convincingly that this is a conclusion any plausible moral view would reach. It’s not just something that weird utilitarians have to deal with. And Beckstead, to his considerable credit, walks the walk on this. He works at the Open Philanthropy Project on grants relating to the far future and runs a charitable fund for donors who want to prioritize the far future. And arguments from him and others have turned “long-termism” into a very vibrant, important strand of the effective altruism community. But what does prioritizing the far future even mean? The most literal thing it could mean is preventing human extinction, to ensure that the species persists as long as possible. For the long-term-focused effective altruists I know, that typically means identifying concrete threats to humanity’s continued existence — like unfriendly artificial intelligence, or a pandemic, or global warming/out of control geoengineering — and engaging in activities to prevent that specific eventuality. But in a set of slides he made in 2013, Beckstead makes a compelling case that while that’s certainly part of what caring about the far future entails, approaches that address specific threats to humanity (which he calls “targeted” approaches to the far future) have to complement “broad” approaches, where instead of trying to predict what’s going to kill us all, you just generally try to keep civilization running as best it can, so that it is, as a whole, well-equipped to deal with potential extinction events in the future, not just in 2030 or 2040 but in 3500 or 95000 or even 37 million. In other words, caring about the far future doesn’t mean just paying attention to low-probability risks of total annihilation; it also means acting on pressing needs now. For example: We’re going to be better prepared to prevent extinction from AI or a supervirus or global warming if society as a whole makes a lot of scientific progress. And a significant bottleneck there is that the vast majority of humanity doesn’t get high-enough-quality education to engage in scientific research, if they want to, which reduces the odds that we have enough trained scientists to come up with the breakthroughs we need as a civilization to survive and thrive. So maybe one of the best things we can do for the far future is to improve school systems — here and now — to harness the group economist Raj Chetty calls “lost Einsteins” (potential innovators who are thwarted by poverty and inequality in rich countries) and, more importantly, the hundreds of millions of kids in developing countries dealing with even worse education systems than those in depressed communities in the rich world. What if living ethically for the far future means living ethically now? Beckstead mentions some other broad, or very broad, ideas (these are all his descriptions): Help make computers faster so that people everywhere can work more efficiently Change intellectual property law so that technological innovation can happen more quickly Advocate for open borders so that people from poorly governed countries can move to better-governed countries and be more productive Meta-research: improve incentives and norms in academic work to better advance human knowledge Improve education Advocate for political party X to make future people have values more like political party X ”If you look at these areas (economic growth and technological progress, access to information, individual capability, social coordination, motives) a lot of everyday good works contribute,” Beckstead writes. “An implication of this is that a lot of everyday good works are good from a broad perspective, even though hardly anyone thinks explicitly in terms of far future standards.” Look at those examples again: It’s just a list of what normal altruistically motivated people, not effective altruism folks, generally do. Charities in the US love talking about the lost opportunities for innovation that poverty creates. Lots of smart people who want to make a difference become scientists, or try to work as teachers or on improving education policy, and lord knows there are plenty of people who become political party operatives out of a conviction that the moral consequences of the party’s platform are good. All of which is to say: Maybe effective altruists aren’t that special, or at least maybe we don’t have access to that many specific and weird conclusions about how best to help the world. If the far future is what matters, and generally trying to make the world work better is among the best ways to help the far future, then effective altruism just becomes plain ol’ do-goodery.\*

## Fwk

#### The fwk for weighing impacts is util.

#### 1] Use util – it’s impartial, specific to public actors, and resolves infinite regress which explains all value. Reject flawed calc indicts that misunderstand happiness and rely on problematic intuitions.

Greene 15 — (Joshua Greene, Professor of Psychology @ Harvard, being interviewed by Russ Roberts, “Joshua Greene on Moral Tribes, Moral Dilemmas, and Utilitarianism”, The Library of Economics and Liberty, 1-5-15, Available Online at <https://www.econtalk.org/joshua-greene-on-moral-tribes-moral-dilemmas-and-utilitarianism/#audio-highlights>, accessed 5-17-20, HKR-AM) \*\*NB: Guest = Greene, and only his lines are highlighted/underlined

Guest: Okay. So, I think utilitarianism is very much misunderstood. And this is part of the reason why we shouldn't even call it utilitarianism at all. We should call it what I call 'deep pragmatism', which I think better captures what I think utilitarianism is really like, if you really apply it in real life, in light of an understanding of human nature. But, we can come back to that. The idea, going back to the tragedy of common-sense morality is you've got all these different tribes with all of these different values based on their different ways of life. What can they do to get along? And I think that the best answer that we have is--well, let's back up. In order to resolve any kind of tradeoff, you have to have some kind of common metric. You have to have some kind of common currency. And I think that what utilitarianism, whether it's the moral truth or not, is provide a kind of common currency. So, what is utilitarianism? It's basically the idea that--it's really two ideas put together. One is the idea of impartiality. That is, at least as social decision makers, we should regard everybody's interests as of equal worth. Everybody counts the same. And then you might say, 'Well, but okay, what does it mean to count everybody the same? What is it that really matters for you and for me and for everybody else?' And there the utilitarian's answer is what is sometimes called, somewhat accurately and somewhat misleadingly, happiness. But it's not really happiness in the sense of cherries on sundaes, things that make you smile. It's really the quality of conscious experience. So, the idea is that if you start with anything that you value, and say, 'Why do you care about that?' and keep asking, 'Why do you care about that?' or 'Why do you care about that?' you ultimately come down to the quality of someone's conscious experience. So if I were to say, 'Why did you go to work today?' you'd say, 'Well, I need to make money; and I also enjoy my work.' 'Well, what do you need your money for?' 'Well, I need to have a place to live; it costs money.' 'Well, why can't you just live outside?' 'Well, I need a place to sleep; it's cold at night.' 'Well, what's wrong with being cold?' 'Well, it's uncomfortable.' 'What's wrong with being uncomfortable?' 'It's just bad.' Right? At some point if you keep asking why, why, why, it's going to come down to the conscious experience--in Bentham's terms, again somewhat misleading, the pleasure and pain of either you or somebody else that you care about. So the utilitarian idea is to say, Okay, we all have our pleasures and pains, and as a moral philosophy we should all count equally. And so a good standard for resolving public disagreements is to say we should go with whatever option is going to produce the best overall experience for the people who are affected. Which you can think of as shorthand as maximizing happiness--although I think that that's somewhat misleading. And the solution has a lot of merit to it. But it also has endured a couple of centuries of legitimate criticism. And one of the biggest criticisms--and now we're getting back to the Trolley cases, is that utilitarianism doesn't adequately account for people's rights. So, take the footbridge case. It seems that it's wrong to push that guy off the footbridge. Even if you stipulate that you can save more people's lives. And so anyone who is going to defend utilitarianism as a meta-morality--that is, a solution to the tragedy of common sense morality, as a moral system to adjudicate among competing tribal moral systems--if you are going to defend it in that way, as I do, you have to face up to these philosophical challenges: is it okay to kill on person to save five people in this kind of situation? So I spend a lot of the book trying to understand the psychology of cases like the footbridge case. And you mention these being kind of unrealistic and weird cases. That's actually part of my defense.

Russ: Yeah, there's some plus to it, I agree.

Guest: Right. And the idea is that your amygdala is responding to an act of violence. And most acts of violence are bad. And so it is good for us to have a gut reaction, which is really a reaction in your amygdala that's then sending a signal to your ventromedial prefrontal cortex and so on and so forth, and we can talk about that. It's good to have that reaction that says, 'Don't push people off of footbridges.' But if you construct a case in which you stipulate that committing this act of violence is going to lead to the greater good, and it still feels wrong, I think it's a mistake to interpret that gut reaction as a challenge to the theory that says we should do whatever in general is going to promote the greater good. That is, our gut reactions are somewhat limited. They are good for everyday life. It's good that you have a gut reaction that says, 'Don't go shoving people off of high places.' But that shouldn't be a veto against a general idea that otherwise makes a lot of sense. Which is that in the modern world, we have a lot of different competing value systems, and that the way to resolve disagreements among those different competing value systems is to say, 'What's going to actually produce the best consequences?' And best consequences measured in terms of the quality of people's experience. So, that's kind of completing or partially completing the circle between the tragedy of the commons, that discussion, and how do we get to the Trolleys.

# Case

#### Cross X was clear. Their impacts are about things that something does but the aff doesn’t do anything which means they don’t solve for their impacts.

#### The rotb is arbitrary and self serving. If we prove the disfavoriability of the aff, we win with DA or framework/T. Anything else arbitrarily narrows the debate.

#### Util is just the interpretation for how judges should weigh impacts, not the rotb

**Hui 19 never says that getting rid cybernetics solves the impacts**

#### Their theory of cybernetics is wrong – it’s historically inaccurate, immaterial, and doesn’t explain any of their impacts.

Gregory ’15 (Derek; 2015; Distinguished Professor at the University of British Columbia; Geographies of Knowledge and Power, “Gabriel’s Map: Cartography and Corpography in Modern War,” p. 116-118)

Paul Virilio’s (1989) account of War and cinema, and particularly his rendering of the logistics of perception during World War I, remains a **landmark analysis**. He made much of the connections between aviation and cinema, and his arguments have informed the opening sections of my own essay. In his eyes, aerial reconnaissance— which stood in the closest of associations to the cartographic—became successively “chronophotographic” and then cinematographic, as these new methods struggled both to keep pace with and to produce the new motility of a war that merely appeared to be static and fixed in place. But Virilio also advanced another, more problematic claim: “As sight lost its direct quality and reeled out of phase, the soldier had the feeling of being not so much destroyed as de-realized or de-materialized, any sensory point of reference suddenly vanishing in a surfeit of optical targets” (pp. 14–15). Here he continues to privilege the visual-optical register of cartography and **fails to register the bodily habitus** that, as I have shown in the closing sections, was **profoundly implicated** in the actions and affects of the ordinary infantryman. Virilio was not alone. A. M. Burrage (1930) wrote that [W]e are slowly realising that the job of the infantry isn’t to kill. It is the artillery and the machine-gun corps who do the killing. We are merely there to be killed. We are the little flags which the General sticks on the war-map to show the position of the front line. (p. 82) In sketching the outlines of a countervailing corpography established by those on that front line, I do not wish to privilege one mode of knowing over the other: each sutures knowledge to power in vital, significant but none the less **different ways**, and each both advances and repels military violence. But I do sympathize with Edmund Blunden’s (1928/2000) agonized question: Was it nearer the soul of war to adjust armies in coloured inks on vast maps at Montreuil or Whitehall, to hear of or to project colossal shocks in a sort of mathematical symbol, than to rub knees with some poor jaw-dropping resting sentry, under the dripping rubber sheet, balancing on the greasy fire-step . . . ? (p. 141) Of course, “a map is a weapon,” as Lt.-Col. E. M. Jack (“Maps GHQ”) insisted, and those “vast maps,” together with the panoply of trench maps, sketch maps, and all the rest, were some of the deadliest weapons in the staff officers’ armory; but they were **hardly sufficient sources** of knowledge. And so I understand, too, why Blunden (1928/2000) concluded that venturing into the killing fields armed with its pure, abstract, mathematical knowledge alone was sheer folly: [T]he new Colonel . . . sent forward from C Camp an officer fresh from England, and one or two men with him, to patrol the land over which our assault was intended, . . . This officer took with him his set of the maps, panoramas, photographs and assault programmes which had been served round with such generosity for this battle. He never returned ... (pp. 151–152) Coda In this essay I have been concerned with World War I but, as we approach its centenary, it is worth reflecting on the ways in which modern warfare has changed— and those in which **it has not**. Through the constant circulation of military imagery and its ghosting in video games, many of us have come to think of **contemporary warfare as optical war** hypostatized: a war fought on screens and through digital images, in which full motion video feeds from Predators and Reapers allow for an unprecedented degree of remoteness from the killing fields. In consequence, perhaps, many of us are **tempted to think** of the wars waged by advanced militaries, in contrast to World War I, as “surgical,” even body-less. These are wars without fronts, whose complex geometries have required new investments in cartography and satellite imagery, and there have been major advances in political technologies of vision and in the development of a host of other sensors that have dramatically increased the volume of geo-spatial intelligence on which the administration of later modern military violence relies. All of **this has transformed but not replaced** the cartographic imaginary. And yet, for all of their liquid violence, these wars are **still shaped and even confounded** by the multiple, acutely **material environments** through which they are fought. In Sebastian Junger’s (2011) remarkable dispatch from Afghanistan, he notes that for the United States and its allies “the war diverged from the textbooks because it was fought in such axle-breaking, helicopter-crashing, spirit-killing, mind-bending terrain that few military plans survive intact for even an hour” (p. 47). If that sounds familiar, then so too will MacLeish’s (2013) cautionary observations about soldiers as both vectors and victims of military violence: The body’s unruly matter is war’s most necessary and most necessarily expendable raw material. While many analyses of US war violence have emphasized the technologically facilitated withdrawal of American bodies from combat zones in favour of air strikes, smart bombs, remotely piloted drones, and privately contracted fighting forces, the wars in Iraq and Afghanistan **could not carry on without the physical presence** of tens of thousands of such bodies. (p. 11) In consequence, the troops have had to cultivate an intrinsically practical knowledge that, while its operating environment and technical armature are obviously different, still owes much to the tacit **bodily awareness** of the Tommy or the Poilu: In the combat zone there is a balance to be struck, a cultivated operational knowledge, that comes in large part from first-hand experience about what can hurt you and what can’t . . . So you need not only knowledge of what the weapons and armor can do for you and to you but a kind of bodily habitus as well—an ability to take in the sensory indications of danger and act on them without having to think too hard about it first. When you hear a shot, is it passing close by? Is it accurate or random? Is it of sufficient caliber to penetrate your vest, the window of your Humvee or the side of your tank? (MacLeish, 2013, p. 76) In the intricate nexus formed by knowledge, space, and military power, later modern war still relies on cartographic vision—and its agents still **produce their own corpographies**.

**Their theory totalizes the relationship between tech and social relations – that’s catastrophically wrong**

**Susen 19** – Simon, is Professor of Sociology at City, University of London. Before joining City in 2011, he held lectureships at Birkbeck, University of London (2010–2011), Newcastle University (2008–2010), and Goldsmiths, University of London (2007–2008). He received his PhD from the University of Cambridge in 2007. Prior to that, he studied sociology, politics, and philosophy at a range of international universities and research centres – including the University of Cambridge, the University of Edinburgh, the Colegio de México, the Facultad Latinoamericana de Ciencias Sociales in Mexico City, and the École des Hautes Études en Sciences Sociales in Paris. He is Associate Member of the Bauman Institute and, together with Bryan S. Turner, Editor of the Journal of Classical Sociology. “No Escape from the technosystem”, Philosophy and Social Criticism, pg. 734-782, Vol. 46, Issue 6. https://journals.sagepub.com/doi/abs/10.1177/0191453719866239, 10-09-2019

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**.

#### The world is not encoded by algorithmic accumulation.

Markland, 21—Teaching Fellow in Politics and International Relations at Aston University (Alistair, “Epistemic Transformation at the Margins: Resistance to Digitalisation and Datafication within Global Human Rights Advocacy,” Global Society, February 3, 2021, dml)

As established in the first section of this article, proponents of what I have heuristically defined as the “transformation thesis” have emphasised the revolutionary ruptures wrought by digital connectivity and datafication. Some of these proponents illustrate these changes using field specific case studies, as with Duffield’s (2018) suggestion that the transition to a “cybernetic episteme” is reflected in humanitarian practice. Other authors have taken a more abstract view, including Chandler’s (2018) discussion of new modes of governance in the digital era, or the post-humanist drive to reconceptualise “humanity” under conditions of technological entwinement (Cudworth and Hobden 2013). These assertions of macro-level transformation are also supported by network sociology, led principally by Manuel Castells (2010) analysis of how revolutions in information technology, economic globalisation and an emergent “space of flows” interact to produce a new kind of “network society”. This linkage of societal transformation to economic forces is also characteristic of more critical anti-capitalist perspectives, as with the Marxist critique of “cognitive capitalism” (Moulier-Boutang 2012; Zukerfeld 2017). Although these approaches differ in their conceptual frameworks, they are united in their ambition to highlight universal epistemic transformations brought about by technological change.

One of the pitfalls of these totalising perspectives is the neglect of the particular in favour of the universal. For instance, networked thinking encourages assumptions about lateral transformation across socio-political fields that are connected to the digital universe. But not all spheres of social or political activity move at the same pace when they are exposed to technological innovation. Datafication and digitalisation are processes that have uneven impacts on different social and political fields. For example, the testimony of Facebook’s CEO Mark Zuckerberg to the Senate Judiciary and Commerce Committees in April 2018, where US lawmakers appeared confused by the social media giant’s basic business model, is a stark illustration of the gap that still exists between the world of Big Tech and the operating logics of mainstream democratic politics (Stewart 2018). Bigo and Bonelli (2019, 115) have found that even in the field of transnational intelligence, a sphere that could have much to gain from algorithmic techniques, technological expertise tends to be contracted out to third parties while traditional, human-sourced intelligence approaches remain dominant. Therefore, grasping for totalising processes risks ignoring the empirical specificity of divergent social microcosms.

To remedy this blind side in transformationalist thinking, I assert the utility of applying Pierre Bourdieu’s field theory when conceptualising how certain spheres of social or political activity—including the field of global human rights advocacy discussed in the previous section—mediate pressures for epistemic transformation and potentially isolate technological changes and agents to the margins. Employing field theory, Ole Jacob Sending (2015, 11) sees global governance as divided into separate fields, where “actors compete with each other to be recognised as authorities on what is to be governed, how, and why”. Examples of such fields include international development, security, peacebuilding, humanitarianism, and human rights advocacy. However, each field varies in terms of its specific “rules of the game” (Bourdieu and Waquant 1992, 99). Fields are bounded, game-like social structures that are constituted by a unique constellation of actors. These actors struggle for authority according to the field’s principles of legitimation (Bourdieu 1989, 17). These principles of legitimation, which define a field’s cultural capital, are durable to the extent that dominant actors remain invested in their reproduction. Actors’ prolonged immersion in these fields subsequently shapes their own practical sensibilities, so that the field’s logics are internalised as common sense within the habitus (Bourdieu 1990, 53). It is the embedment of the field’s doxa (common sense) within the habitus of invested actors that makes fields durable and resistant to radical transformations. As seen in the previous section, the rules governing the human rights field are associated with its logic of political influence, persuasion, and moral authority.

Critics of Bourdieusian field theory have argued that it is overly structuralist, reproductive, and cannot grasp “the ever-shifting constellations of actors, institutions, data and forms of expression that make up the expertise” (Waever and Leander 2018, 2). However, alternative approaches such as actor-network theory or assemblage-based theories fail to centralise the importance of social and political struggles between agents which are key in defining the trajectory of digitalisation and datafication. As Ruppert, Isin, and Bigo (2017, 3), “[d]ata does not happen through unstructured social practices but through structured and structuring fields in and through which various agents and their interests generate forms of expertise, interpretation, concepts, and methods that collectively function as fields of power and knowledge”. Similarly, “data is not an already given artefact that exists (which then needs to be mined, analysed, brokered) but an object of investment (in the broadest sense) that is produced by the competitive struggles of professionals who claim stakes in its meaning and functioning” (Bigo, Isin, and Ruppert 2019, 11). Technological change can influence the trajectory of different global political fields by enabling the entry of new types of actors (such as data consultants in the case of human rights advocacy), as well as by producing emergent sources of cultural capital and associated epistemic practices (such as expertise in geospatial imaging).

As Bigo and Bonelli (2019, 120) have observed in the case of the transnational intelligence field, technological change can be accompanied by the growing influence of private companies who “have played a substantial role in the recruitment of IT specialists, network engineers, data analysts, integration platform software designers, language and coding specialists, cryptologists, and mathematicians tasked with creating or combining algorithms”. Such entryism can have a revolutionary effect if those new actors are able redefine a field’s organising logic, cultural capital, and principles of legitimation. For example, looking at the case of Sudan in the 1990s as an antecedent to the transformation of humanitarianism, Duffield (2018, 85) traces how donor governments asserted greater control over NGOs, who subsequently “seamlessly morphed into the ‘implementing partners’ of donor governments”. Alongside growing private sector partnerships, these developments stimulated the neoliberal re-alignment of the humanitarian field away from Third World solidarity and the progressive support for autonomous change and towards the governance of precarity. This exposed the field to an epistemic transformation that privileged datafication based on a “surveillance logic of command and control” (ibid., 168).

However, not all global political fields are so structurally conducive to this kind of radical transformation. The example of the human rights advocacy field illustrates how a strong autonomous organising logic—a logic of persuasion—generates entrenched forms of field-specific cultural capital—qualitative and humanistic accounts of raw suffering that establish clear legal responsibilities. Actors can mobilise digital or data infrastructures to diversify the range of tools and media at their disposal, as illustrated by the (limited) use of geospatial technology, data visualisations in human rights reporting, and a growing reliance on social media platforms to engage audiences. However, they do not necessarily threaten the epistemic practices that are at the centre of human rights advocacy. This is because the transformative potential of new technologies and methods depends on their epistemic, political, social, or moral value in the eyes of the fields’ dominant actors. The integration of data-based approaches has been one of slow adaptation, not revolution, and technological specialists—often employed as third-party consultants rather than as full-time human rights professionals—remain at the margins. The Bourdieusian concept of habitus is also helpful in illuminating how fields with strong professional structures and specific educational and career trajectories can endow members with enduring dispositions that favour both the reproduction of existing epistemic practices and resistance to new ones. The habitus of human rights professionals is still primarily defined by legal, journalistic, and liberal-cosmopolitan moral/political dispositions, rather than technological expertise. So long as processes of doxic reproduction remain stable, the potential for epistemic transformation through datafication remains limited.

#### Tech good –

#### 1 – Accurate predictions---the alt causes confirmation bias

Michael D. Ward 13, Professor of Political Science at Duke University, Niles W. Metternich, University of College London, Cassy L. Dorff, Max Gallop, Florian M. Hollenbach, Anna Schultz, and Simon Weschle, "Learning from the Past and Stepping into the Future: Toward a New Generation of Conflict Prediction", International Studies Review (2013) 15, 473-490

Political events are frequently framed as unpredictable. Who could have predicted the Arab Spring, 9/11, or the end of the cold war? This skepticism about prediction reflects an underlying desire to forecast. Predicting political events is difficult because they result from complex social processes. However, in recent years, our capacity to collect information on social behavior and our ability to process large data have increased to degrees only foreseen in science fiction. This new ability to analyze and predict behavior confronts a demand for better political forecasts that may serve to inform and even help to structure effective policies in a world in which prediction in everyday life has become commonplace. Only a decade ago, scholars interested in civil wars undertook their research with constrained resources, limited data, and statistical estimation capabilities that seem underdeveloped by current standards. Still, major advances did result from these efforts. Consider “Ethnicity, Insurgency and Civil War” by Fearon and Laitin (2003), one of the most venerated and cited articles about the onset of civil wars. Published in 2003, it has over 3,000 citations in scholar.google.com and almost 900 citations in the Web of Science (as of April 2013). It has been cited prominently in virtually every social science discipline in journals ranging from Acta Sociologica to World Politics; and it is the most downloaded article from the American Political Science Review.2 ¶ This article is rightly regarded as an important, foundational piece of scholarship. However, in the summer of 2012, it was used by Jacqueline Stevens in a New York Times Op-Ed as evidence that political scientists are bad forecasters. That claim was wildly off the mark in that Fearon and Laitin do not focus on forecasting, and Stevens ignored other, actual forecasting efforts in political science. Stevens’ point—which was taken up by the US Congress—was that government funding on quantitative approaches was being wasted on efforts that did not provide accurate policy advice. In contrast to Stevens, we argue that conflict research in political science can be substantially improved by more, not less, attention to predictions through quantitative approaches.¶ We argue that the increasing availability of disaggregated data and advanced estimation techniques are making forecasts of conflict more accurate and precise, thereby helping to evaluate the utility of different models and winnow the good from the bad. Forecasting also helps to prevent overfitting and reduces confirmation bias. As such, forecasting efforts can be used to help validate models, to gain greater confidence in the resulting estimates, and to ultimately present robust models that may allow us to improve the interaction with decision makers seeking greater clarity about the implications of potential actions.

#### 2 – Peacekeeping---algorithmic governance enables effective responses to global atrocities

John Karlsrud 14, Senior Research Fellow and Manager of the Training for Peace programme at NUPI, Peacekeeping 4.0: Harnessing the Potential of Big Data, Social Media, and Cyber Technologies, in “Cyberspace and International Relations: Theory, Prospects and Challenges,” https://www.researchgate.net/profile/Hakan\_Mehmetcik/publication/285282612\_A\_New\_Way\_of\_Conducting\_War\_Cyberwar\_Is\_That\_Real/links/5c63f67d45851582c3e47db7/A-New-Way-of-Conducting-War-Cyberwar-Is-That-Real.pdf

Brought together, the data can enable international organizations to follow and possibly prevent evolving situations and crises. This potential has been recognized; and, following the financial crisis, the UN Secretary-General created UN Global Pulse to explore opportunities for using real-time data to gain a more accurate understanding of population wellbeing, especially related to the impacts of global crises. The availability of real-time data holds great promise for helping us detect the early signs of stress on vulnerable populations. It represents an unprecedented opportunity to track the human impacts of crises as they unfold, and to get real-time feedback on how well policy responses are working (UN Global Pulse 2012b). As such, research undertaken by UN Global Pulse, notably though its networks of country-level “Pulse Labs,” may give the UN a better ability to follow, respond to and mitigate the impact of natural disasters and complex crises.

However, more than 90 % of the information will be unstructured, potentially rich in useful information. Turning structured and unstructured information into actionable data requires efficient ways of structuring and analyzing the information in real time in a data ecosystem (WEF 2010, p. 4). This process is often called “reality mining” (UN Global Pulse 2012a, p. 18; Eagle and Pentland 2006) or “data mining”—discovering patterns in large data sets (Cheshire 2011; Helbing and Balietti 2012). So, how can the UN and other multilateral actors make use of this data? Cooperation has been initiated with Google and other large corporations that are at the forefront in harvesting actionable data from the “data deluge” (The Economist 2010b).

Concurrently with this development, the digital divide is closing at an increasing speed. According to the World Bank, 44.9 out of every 100 people in subSaharan Africa had a mobile subscription in 2010 (World Bank 2012a), and by 2016 this figure will reach 91.3 (Portio Research 2012), although the high number may mask persons have more than one subscription. The percentage of population with access to internet is also increasing (World Bank 2012b). This means that the amount of both structured and unstructured data that can be analyzed and can inform multilateral efforts for conflict prevention and international security is increasing rapidly and can give a more even and realistic picture of the situation in question. However, there is a need to be realistic. There is great variance in the access to data between countries such as Syria and the Democratic Republic of Congo, and many have more than one mobile subscription to strengthen their resilience against patchy networks.

Other co-influencing factors are the rapid spread of 3G networks in developing countries and affordable smart phones at prices down to $50 or less (Jidenma 2011). There is also a current global mega-trend of access to the internet through mobile devices: “in a world where there are 6.3 bn mobile users and 2.3 bn internet users, the default access mode to broadband services is mobile” (Ulf Ewaldsson, Ericsson, quoted in ITU 2012a). According to the International Telecommunication Union, “the ubiquitous mobile phone provides an important foundation for the uptake of mobilebased Internet [in the developing world]. With the majority of countries worldwide having launched 3G mobile-broadband services, the prospects are promising” (ITU 2012b, p. 39, Evans 2012).

In the areas of conflict prevention, humanitarian action, and development, the UN has made some initial steps. But what then is the situation in the areas of peacekeeping and peacebuilding? Unfortunately, little progress has been made so far. Notwithstanding the inclusion of surveillance drones in one peacekeeping mission, the development of Joint Mission Analysis Cells and Joint Operations Centres (which I will return to in the next section), the use of mobile phones in community alert networks in eastern Congo, and the heightened focus on the strategic planning and coordination capacity of peacekeeping and peacebuilding operations, much work remains before peacekeeping operations can be said to be tapping the potential of big data, social media, and cyber-technology effectively, entering the age of “Peacekeeping 4.0.”

The good part of this story is that much work already has been undertaken in the similar and parallel fields of conflict prevention, humanitarian action and development. Many lessons from these fields could easily be imported, while other innovative approaches can be accessed through increased cooperation and coordination. Accomplishing this will require overcoming various bureaucratic hurdles and turfism, driven by support from engaged member states and the Secretary-General. Finally, the uptake of digital information in the planning of UN peace operations may also have implications for how the interaction between the UN, member states and civil society is theorized. IR theorists have increasingly underscored the importance of civil society actors as potential norm entrepreneurs (Keck and Sikkink 1998), and more recent research looking at the relationship between media and international organizations emphasize the potential role civil society and new technology can play in democratizing the access to information, but also the potential for groups spreading disinformation and incite hatred.

This chapter will seek to explore what chances the availability of Big Data and new technologies offer for peacekeeping and as well as inherent challenges. The chapter proceeds as follows: First, I narrow in on some key initiatives in the areas of conflict prevention, humanitarian action, and development that can be relevant to peacekeeping. The following section provides a short background on peacekeeping and its evolution from the end of the Cold War until present, noting some of the steps taken to date. Thirdly, I discuss some of the challenges and opportunities facing policymakers, and relate these to the area of peacekeeping in particular. Finally, the chapter sums up and offers some recommendations for policymakers among member states, in the UN, and among civil society, as well as pointing out areas in need of further research, to enable the UN to enter the era of fourth generation peacekeeping—“Peacekeeping 4.0.”

#### Tech is getting better – you’re biased toward pessimism

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. <https://techliberation.com/2018/10/10/in-defense-of-techno-optimism/>]

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,