### 1

#### CP Text: Space faring nations should establish a multilateral agreement that restricts asteroid mining done by private entities except for on asteroid Kamo’oalewa and prohibits all other forms of appropriation of outer space by private entities.

#### Kamo’oalewa is NEO asteroid comprised of lunar material

Devlin 21 [Hannah Devlin is the Guardian's science correspondent, having previously been science editor of the Times. “Near-Earth asteroid is a fragment from the moon, say scientists.” November 11, 2021. https://www.theguardian.com/science/2021/nov/11/near-earth-asteroid-is-a-fragment-from-the-moon-say-scientists]

Scientists have identified what appears to be a small chunk of the moon that is tracking the Earth’s orbit around the Sun. The asteroid, named Kamo`oalewa, was discovered in 2016 but until now relatively little has been known about it. New observations suggest it could be a fragment from the moon that was thrown into space by an ancient lunar collision. Kamo`oalewa is one of Earth’s quasi-satellites, a category of asteroid that orbits the Sun, but remains relatively close to the planet – in this case about 9m miles away. Despite being close in astronomical terms, the asteroid is about the size of a ferris wheel and about 4m times fainter than the faintest star that can be seen with the naked eye. Consequently, the Earth’s most powerful telescopes are needed to make observations. Using the Large Binocular Telescope on Mount Graham in southern Arizona, astronomers found the spectrum of reflected light from Kamo`oalewa closely matched lunar rocks from Nasa’s Apollo missions, suggesting it originated from the moon. They had initially compared the light with that reflected off other near-Earth asteroids, but drawn a blank. “I looked through every near-Earth asteroid spectrum we had access to, and nothing matched,” said Ben Sharkey, a PhD student at the University of Arizona and the paper’s lead author. After missing the chance to observe Kamo`oalewa in April 2020 owing to a shutdown of the telescope during the coronavirus pandemic, the team found the final piece of the puzzle in 2021. “This spring, we got much needed follow-up observations and went, ‘Wow it is real,’” Sharkey said. “It’s easier to explain with the moon than other ideas.”

#### Space based solar power is being developed and transitions to 100% clean energy, but lunar regolith is key. Solves warming which they causes extinction.

O’Neill 13 [Ian O'Neill is a media relations specialist at NASA's Jet Propulsion Laboratory (JPL) in Southern California. Prior to joining JPL, he served as editor for the Astronomical Society of the Pacific‘s Mercury magazine and Mercury Online and contributed articles to a number of other publications, including Space.com, Space.com, Live Science, HISTORY.com, Scientific American. Ian holds a Ph.D in solar physics and a master's degree in planetary and space physics. “How to Turn the Moon Into a Giant Space Solar Power Hub.” December 3, 2013. https://www.space.com/23810-moon-luna-belt-solar-power-idea.html]

When it comes to space and energy, we need to think big. That's what one Japanese company is doing — and they're reaching for the moon, literally. The best thing about the moon is that one lunar hemisphere is constantly bathed in sunlight (except for the occasional eclipse), so using solar arrays to generate power may not seem like such a stretch. Take China's recently-launched Chang'e 3 Yutu rover for example, it's solar powered. Also, Apollo astronauts set up solar-powered experiments on the lunar regolith. But how about wrapping the moon's equator in a 250 mile wide band of solar panels and beaming the power generated back to Earth? That's exactly what Shimizu Corporation is proposing and they reckon their concept could harness a steady stream of 13,000 terawatts of power. According to Business Insider, "the total installed electricity generation summer capacity in the United States was 1,050.9 gigawatts." Such a vast energy resource could be transformative for our civilization. As Obi-Wan might say: "That's no moon. It's a space (solar power) station." "A shift from economical use of limited resources to the unlimited use of clean energy is the ultimate dream of all mankind," says the company's website. "The LUNA RING, our lunar solar power generation concept, translates this dream into reality through ingenious ideas coupled with advanced space technologies." Indeed, advanced space technologies will be needed, not only to harvest solar energy and efficiently beam it back to Earth, but its very construction will require several leaps in robotic technology development. Also, this mother of all engineering tasks will need to see some significant changes in international space treaties before it sees light of day. Resembling a moon born from science fiction, the LUNA RING is just that, a ring around the moon. The ring, stretching 6,800 miles around the moon's circumference, will be constructed by robots that will "perform various tasks on the lunar surface, including ground leveling and excavation of hard bottom strata." The entire project will be overseen by a team of humans while the bulk of the robotic tasks can be teleoperated from Earth. [Moon Base Visions: How to Build a Lunar Colony (Photos)] It’s all very well building a huge array of solar panels around the moon, but how would the power be sent to Earth? As our atmosphere is virtually transparent to microwaves and lasers, Shimizu envisages solar energy being fed through microwave/laser transmitters located around the Earth-facing side of the moon. As the moon orbits the Earth and the Earth rotates, international receiving stations will feed electricity grids with plentiful lunar solar power as the moon rises to when it sets. The designers are keen to point out that this is a green energy resource that could benefit the whole of mankind. What's more, when the infrastructure is set up, other resources can be exploited — such as mining for precious minerals and fabricating products from regolith. One could imagine an international consortium of nations and/or companies that buy a stake in the LUNA RING to aid its construction. Each partner would then have rights to construct receiving stations in their geographical location of choice, weaning us off polluting sources of power. Japan, which was hurt by the devastating Fukushima meltdown in 2011, is actively seeking out alternative power resources to wean itself off nuclear energy — it doesn't get more "alternative" than this.

#### Conditionality --- it’s good

#### 1] Key to neg flex --- they set the terms of debate and know the plan better than us, so multiple options ensures the neg doesn’t auto lose after the 1AR

#### 2] Experimentation – lack of condo means negs never experiment with new args, which results in stale debates where each neg reads the same position every round

#### 3] Strategic thinking – condo forces the 1AR to make time allocation decisions and the 2N to sort through more layers when deciding where to collapse

#### 4] Condo increases breadth of clash by incentivizing multiple layers like a PIC, Adv CP, DA, and case debate – breadth o/w depth on portability – debate exposes us to more ideas that improve awareness of the world

#### 5] Reasonability --- competing interps leads to substance crowd-out by letting minor infractions end the debate – don’t vote aff if they had substantive answers because it proves the substance education DA to voting on theory o/w the abuse story.

dispo

#### 1] It’s arbitrary because the neg will choose self-serving conditions to kick their advocacies with no stable basis, like “putting defense” on it

#### 2] Dispo creates incentive structures where affs get a monopoly over the strategic value of the counterplan by having the flex to decide whether or not to violate the condition. 2N choice is at the mercy of the 1AR which kills all the benefits of condo since negs won’t take that risk

### 2

#### Space Commercialization drives Tech Innovation in the Status Quo – it provides a unique impetus.

Hampson 17 Joshua Hampson 1-25-2017 “The Future of Space Commercialization” <https://republicans-science.house.gov/sites/republicans.science.house.gov/files/documents/TheFutureofSpaceCommercializationFinal.pdf> (Security Studies Fellow at the Niskanen Center)//Elmer

The size of the space economy is far larger than many may think. In 2015 alone, the global market amounted to $323 billion. Commercial infrastructure and systems accounted for 76 percent of that 9 total, with satellite television the largest subsection at $95 billion. The global space launch market’s 10 11 share of that total came in at $6 billion dollars. It can be hard to disaggregate how space benefits 12 particular national economies, but in 2009 (the last available report), the Federal Aviation Administration (FAA) estimated that commercial space transportation and enabled industries generated $208.3 billion in economic activity in the United States alone. Space is not just about 13 satellite television and global transportation; while not commercial, GPS satellites also underpin personal navigation, such as smartphone GPS use, and timing data used for Internet coordination.14 Without that data, there could be problems for a range of Internet and cloud-based services.15 There is also room for growth. The FAA has noted that while the commercial launch sector has not grown dramatically in the last decade, there are indications that there is latent demand. This 16 demand may catalyze an increase in launches and growth of the wider space economy in the next decade. The Satellite Industry Association’s 2015 report highlighted that their section of the space economy outgrew both the American and global economies. The FAA anticipates that growth to 17 continue, with expectations that small payload launch will be a particular industry driver.18 In the future, emerging space industries may contribute even more the American economy. Space tourism and resource recovery—e.g., mining on planets, moons , and asteroids—in particular may become large parts of that industry. Of course, their viability rests on a range of factors, including costs, future regulation, international problems, and assumptions about technological development. However, there is increasing optimism in these areas of economic production. But the space economy is not just about what happens in orbit, or how that alters life on the ground. The growth of this economy can also contribute to new innovations across all walks of life. Technological Innovation 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.

#### Strong Innovation solves Extinction.

Matthews 18 Dylan Matthews 10-26-2018 “How to help people millions of years from now” <https://www.vox.com/future-perfect/2018/10/26/18023366/far-future-effective-altruism-existential-risk-doing-good> (Co-founder of Vox, citing Nick Beckstead @ Rutgers University)//Re-cut by Elmer

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.

### 3

#### Hacking towards Satellites is coming now – incentives and vulnerabilities align.

Culpan 21 Tim Culpan 11-2-2021 "The Next Big Hack Could Come From the Stars" <https://archive.is/XElln#selection-3035.0-3040.0> (Bloomberg Opinion Columnist)//Elmer

“As space becomes more important, there becomes unfortunately even greater incentives for malicious actors to disrupt, deny or alter our space-based assets,” Bob Kolasky, head of the Department of Homeland Security’s National Risk Management Center, told the same conference organized by the National Institute of Standards and Technology. “With space, whatever you put in orbit is what you must live with. Systems must be designed so that they can address threats and hazards throughout their lifespan.” What makes satellites and their associated land-based infrastructure more vulnerable is that the data they transmit can be easily accessed by anyone on Earth with $300 worth of TV reception equipment, allowing you to eavesdrop on unencrypted financial data or download information from Russian and American weather satellites in real time. A nefarious actor with its own satellite could even cause interference or block the signal from these orbiting stations. But among the scariest of scenarios would be for an adversary to break into the control systems of a satellite, redirect its movement or even crash it into another satellite or the planet. That may have already happened. According to one account, a breach at the Goddard Space Flight Center in Washington, D.C., in 1998 led to a U.S.-German satellite called ROSAT being overtaken and turned toward the sun, damaging the ultraviolet filter on its image sensors. This allegation has been denied, yet whether real or apocryphal the incident (the filter was indeed destroyed by the sun) shows the challenges of repairing hardware 360 miles above the earth’s surface or even investigating the cause of the malfunction.

#### Megaconstellations solve satellite hacking – multiple warrants. Commercial Satellites are key due to production capacity.

Hallex and Cottom 20 Hallex, Matthew, and Travis Cottom. "Proliferated commercial satellite constellations: Implications for national security." Joint Forces Quarterly 97.July (2020): 20-29. (Matthew A. Hallex is a Research Staff Member at the Institute for Defense Analyses. Travis S. Cottom is a Research Associate at the Institute for Defense Analyses.)//Re-cut by Elmer

While potentially threatening the sustainability of safe orbital operations, new proliferated constellations also offer opportunities for the United States to increase the resilience of its national security space architectures. Increasing the resilience of U.S. national security space architectures has strategic implications beyond the space domain. Adversaries such as China and Russia see U.S. dependence on space as a key vulnerability to exploit during a conflict. Resilient, proliferated satellite constellations support deterrence by denying adversaries the space superiority they believe is necessary to initiate and win a war against the United States.28 Should deterrence fail, these constellations could provide assured space support to U.S. forces in the face of adversary counterspace threats while imposing costs on competitors by rendering their investments in counterspace systems irrelevant. Proliferated constellations can support these goals in four main ways. First, the extreme degree of disaggregation inherent in government and commercial proliferated constellations could make them more resilient to attacks by many adversary counterspace systems. A constellation composed of hundreds or thousands of satellites could withstand losing a relatively large number of them before losing significant capability. Conducting such an attack with kinetic antisatellite weapons—like those China and Russia are developing—would require hundreds of costly weapons to destroy satellites that would be relatively inexpensive to replace. Second, proliferated constellations would be more resilient to adversary electronic warfare. Satellites in LEO can emit signals 1,280 times more powerful than signals from satellites in GEO.29 They also are faster in the sky than satellites in more distant orbits, which, combined with the planned use of small spot beams for communications proliferated constellations, would shrink the geographic area in which an adversary ground-based jammer could effectively operate, making jammers less effective and easier to geolocate and eliminate.30 Third, even if the United States chooses not to deploy national security proliferated constellations during peacetime, industrial capacity for mass-producing proliferated constellation satellites could be repurposed during a conflict. Just as Ford production lines shifted from automobiles to tanks and aircraft during World War II, one can easily imagine commercial satellite factories building military reconnaissance or communications satellites during a conflict. Fourth, deploying and maintaining constellations of hundreds or thousands of satellites will drive the development of low-cost launches to a much higher rate than is available today. Inexpensive, high-cadence space launch could provide a commercial solution to operationally responsive launch needs of the U.S. Government. In a future where space launches occur weekly or less, the launch capacity needed to augment national security space systems during a crisis or to replace systems lost during a conflict in space would be readily available.31

#### Hacking on Satellites goes Nuclear.

Miller and Fontaine 17 James Miller and Richard Fontaine 11-26-2017 "Cyber and Space Weapons Are Making Nuclear Deterrence Trickier" <https://www.defenseone.com/ideas/2017/11/cyber-and-space-weapons-are-making-nuclear-deterrence-trickier/142767/> (James N. Miller, Jr. is a member of the Board of Advisors of the Center for a New American Security. He served as U.S. Under Secretary of Defense for Policy from 2012 to 2014.)//Elmer

Cyber weapons are not, of course, the sole preserve of Russia. Washington has acknowledged its own development of them, and senior U.S. officials have highlighted their use against ISIS. Their possession by both Russia and the United States complicates traditional notions of strategic stability. Using non-kinetic, non-lethal cyber tools is likely to be very attractive in a crisis, and certainly in a conflict. Yet with both sides possessing the means to disrupt or destroy the other’s military systems and critical infrastructure – both war-supporting infrastructure as well as purely civilian infrastructure - a small “cyber-spark” could prompt rapid escalation. Such an attack could inadvertently “detonate” a cyber weapon that had been intended to lay dormant in the other side’s systems. Or a spark produced by sub-national actors – “patriotic hackers” inside or outside the government – could generate unintended cascading effects. The spark could even come via a false flag attack, with a third-party trying to pit the United States and Russia against one another. A second scenario could appear if armed conflict looks likely. At the outset, there would exist strong incentives to use offensive cyber and counter-space capabilities early, in order to negate the other side’s military. The U.S. and Russian militaries depend (though not equally) on information technology and space assets to collect and disseminate intelligence, as well as for command, control, and communications. Hence the incentive to use non-kinetic cyber or space attacks to degrade the other side’s military, with few if any direct casualties. By moving first, the cyber- or space-attacker could gain military and coercive advantage, while putting the onus on the attacked side to dare escalate with “kinetic” lethal attacks. Would the United States or Russia respond with, say, missile strikes or a bombing campaign in response to some fried computers or dead robots in outer space? Given the doubt that they would, large-scale cyber and space attacks – before a kinetic conflict even starts – are likely to be seen as a low-risk, high-payoff move for both sides. A third scenario plays out if one side believes that its critical infrastructure and satellites are far less vulnerable than the other side. In that case, a severe crisis or conflict might prompt the country to threaten (and perhaps provide a limited demonstration of) cyber attacks on civilian critical infrastructure, or non-kinetic attacks on space assets. Such a move would require the attacked side to respond not in kind but by escalating. So far, the three scenarios we have described could well undermine stability between the United States and Russia, but need not implicate nuclear stability. Yet consider this: U.S. and Russian nuclear forces rely on information technology and space assets for warning and communications. Attack the right satellites, or attack the right computers, and one side may disrupt the other’s ability to use nuclear weapons – or at least place doubt in the minds of its commanders. As a result, a major cyber and space attack could put nuclear “use-or-lose” in play early in a crisis. While we are generally accustomed to thinking about nuclear use as the highest rung on the escalatory ladder, such pressures – generated via non-nuclear attacks – could bring the horrors of a nuclear exchange closer rather than substituting for them.

### Case

#### 1] Top level- there’s no advocacy text or plan text which means the aff doesn’t do anything, nor do they affirm the resolution which means you presume neg. At the very least, err heavily negative and don’t let them de-link out of our offense.

#### 2] Debating the hypothetical implementation of a policy action is good

#### a] real world- instead of whining about things being good or bad, we can propose advocacies to solve them- this helps build advocacy and policymaking skills which are portable to the real world

#### b] clash- by not defending implementation- they make it impossible to read disads and CPs which guts clash and restricts me to a few arguments which also hurts fairness because they have infinite prep to frontline very few arguments.

#### c] their justification of util means that consequences matter and that we should center the debate on the consequences of removing appropriation vs the status quo or a negative advocacy.

#### d] Resolved indicates a policy action, which means we should debate plans.

### Adv 1

#### Cap is sustainable---robust environmental progress and increasing resource reserves prove

Andrew McAfee 20, principal research scientist at MIT, codirector of the MIT Initiative on the Digital Economy at the MIT Sloan School of Management, Doctorate from Harvard Business School, two Master of Science and two Bachelor of Science degrees from MIT, "Don't Misunderstand Earth Day's Successes," Wired, 4-22-2020, https://www.wired.com/story/opinion-dont-misunderstand-earth-days-successes/

We should all be intensely grateful to the people who took to the streets exactly 50 years ago on the first Earth Day. The modern environmental movement that crystallized then has given us a cleaner, better planet. The pressure applied to governments and businesses on April 22, 1970, has not let up since, and it has yielded two huge victories.

The first is massive reductions in the amount of pollution we and our ecosystems have to endure. In the world’s richest countries, which are the ones where environmentalism has most taken hold, the air, land, and water are all much cleaner than they were 50 years ago. This is not because these countries have simply offshored degradation to poor nations. Germany, for example, has the world’s largest trade surplus, yet has seen steady reductions in air pollution in recent decades.

If globalization is not the reason rich countries are much cleaner now than they were half a century ago, then what is? Effective regulation. The United States established the EPA and greatly strengthened the Clean Air Act in 1970, added the Clean Water Act in 1972, and kept taking steps over the years to bring down all kinds of pollution.

Some of the most innovative and helpful of these steps are cap-and-trade systems that create markets for pollution. Companies can trade with each other for the right to pollute, but the overall total is set by the government and declines over time. Over the past 30 years cap-and-trade has proved to be both relatively cheap and highly effective; a triumph of smart environmentalism.

The other great triumph is the improved health of species and ecosystems that we had pushed to the brink. Throughout the 20th century, relentless hunting almost wiped out whales. A nearly global moratorium was finally passed 1982, thanks in part to the “Save the Whales” movement that started in the mid-1970s (no doubt helped by folk superstar Judy Collins’ 1970 hit “Farewell to Tarwathie,” which introduced many people to whales’ haunting songs).Many other species, including wolves, bears, beavers, and deer, have also come back after being near extinction in America. They rebounded in large part because we limited when, where, and how they could be hunted, and we limited trade in wild animal products. It’s generally illegal, for example, to sell hunted meat in the US. For the past 50 years, the environmental movement has carried on the laudable traditions of conservationism, which got its start early in the 20th century as Americans reacted in shock and horror to the extinction of the passenger pigeon and near elimination of the bison and other iconic animals.

Paradoxically, the great victories over pollution and extinction highlight environmentalism’s greatest weakness: a continued hostility to economic growth. The “degrowth” movement, which started in the early 1970s, stressed that human populations and economies simply couldn’t continue to grow as they had in the decades leading up to Earth Day. As philosopher André Gorz put it in 1975, “Even at zero growth, the continued consumption of scarce resources will inevitably result in exhausting them completely. The point is not to refrain from consuming more and more, but to consume less and less—there is no other way of conserving the available reserves for future generations.”

This seemed like an obvious truth to many in the 1970s, especially when they saw that the use of many natural resources—fossil fuels, metals and minerals, fertilizer, and so on—had been increasing in lockstep with the size of the overall economy. Since these resources were finite, and since their consumption went hand-in-hand with growth, growth apparently had to stop.

Yet around the world, it didn’t. The pace has slowed down a bit since the inaugural Earth Day, but this is mainly because the years between 1945 and 1970 saw exceptionally fast growth as we rebuilt our societies after two world wars. Except for that 25-year stretch, economic growth since 1970 is the fastest the world has ever seen.

So how are natural resource stocks doing? Oil is a great indicator of the overall story (its recent pandemic-induced demand free fall notwithstanding). At present we have about 50 years of oil left, given projected consumption and known reserves. That sounds dire, until you realize that 40 years ago, we only had 30 years of oil left. How can this be? It’s certainly not because we’ve cut way back on oil demand; we consume almost 40 percent more oil now than we did in 1980.

It’s because we kept finding more supplies. The same is true for every other economically important natural resource. Proven reserves—the amount of the resource we know we can access—have increased as we keep developing better technologies for finding and accessing them. And because the supply-demand balance keeps getting more favorable, resource affordability increases. The world’s average worker can, with an hour of their labor, purchase a greater quantity of every important resource than was the case just a few decades ago.

We live on a finite planet, but an incredibly abundant one. It contains enough of everything we need for as long as we’ll be around. Especially since, in the decades and centuries to come, we clever humans will almost certainly figure out nuclear fusion or some other technology that gives us limitless clean energy and lets us ignore fossil fuels. In short, there’s no need to slam the brakes on our growth. This happy fact is deeply counterintuitive, and it trips a lot of people up. But the evidence is clear: Degrowth is unnecessary.

In fact, it’s a terrible idea. Recall that the countries that have cleaned up their environments the most since Earth Day are the richest ones. This is not a coincidence, as Indira Gandhi knew in 1972. In a speech given in Stockholm, she said “Are not poverty and need the greatest polluters?... The environment cannot be improved in conditions of poverty.” Prosperous people and societies can afford, in every sense of the word, to care about the state of the planet we all live on, and to improve it.

Economic growth does not irreversibly degrade and deplete the planet. Instead, economic growth yields more prosperous people, who demand to live in a better world—a world with less pollution and more healthy ecosystems. The 50 years since Earth Day have largely shown that they get what they want.

The Covid-19 recession has given us much cleaner air in cities around the world, but at a terrible cost. We don’t need to endure such hardship to reduce emissions from car traffic. If we just made pollution more expensive and energy and transport innovation cheaper (via subsidies or research funding), we’d get the same clean skies without any economic devastation at all.

We face no shortage of environmental challenges over the next 50 years. We continue to overhunt, overfish, and raze ecosystems in many parts of the world. More extinctions loom. And of course we have to reduce the greenhouse gas pollution that’s causing global warming. The good news is that, in the decades since Earth Day, we’ve put together an effective playbook for meeting these challenges. I hope the environmentalists of the coming half-century will study this playbook, and realize that it shuns degrowth rather than advocating it.

#### We’re past tipping points---only tech solves

Eric Levitz 21. Senior Writer at New York Magazine. MA Johns Hopkins. "We’ll Innovate Our Way Out of the Climate Crisis or Die Trying". Intelligencer. 5-17-2021. https://nymag.com/intelligencer/2021/05/climate-biden-green-tech-innovation.html

Today’s best-case ecological scenario was a horror story just three decades ago. In 1993, Bill Clinton declared that global warming presented such a profound threat to civilization that the U.S. would have to bring its “emissions of greenhouse gases to their 1990 levels by the year 2000.” Instead, we waited until 2020 to do so; in the interim, humanity burned more carbon than it had since the advent of agriculture. Now, it will take a historically unprecedented, worldwide economic transformation to freeze warming at “only” 2 degrees — a level of temperature rise that will turn “once in a century” storms into annual events, drown entire island nations, and render major cities in the Middle East uninhabitable in summertime (at least for those whose lifestyles involve “walking outdoors without dying of heatstroke”). This is what passes for a utopian vision in 2021. If we confine ourselves to mere optimism — and assume that every Paris Agreement signatory meets its current pledged target for decarbonization — then warming will hit 2.4 degrees by century’s end.

The reality of our ecological predicament invites denial of our political one. Put simply, it is hard to reconcile the scale of the climate crisis with the limits of contemporary American politics. Delusions rush in to fill the gap. Among these is the fantasy of national autonomy; the notion that the United States can save the planet or destroy it, depending on the precise timeline of its domestic decarbonization. A rapid energy transition in the U.S. is a vital cause, not least for its potential to expedite similar transformations abroad. But the battle for a sustainable planet will be won or lost in the developing world. Although American consumption played a central role in the history of the climate crisis, it is peripheral to the planet’s future: Over the coming century, U.S. emissions are expected to account for only 5 percent of the global total.

There is also the delusion of “de-growth’s” viability. The fact that there is no plausible path for global economic expansion that won’t entail climate-induced death and displacement has led some environmentalists to insist on global stagnation. Yet there is neither a mass constituency for this project, nor any reason to believe that there will be any time soon. Freeze the status-quo economy in amber, and you’ll condemn nearly half of humanity to permanent poverty. Divide existing GDP into perfectly even slices, and every person on the planet will live on about $5,500 a year. American voters may express a generalized concern about the climate in surveys, but they don’t seem willing to accept even a modest rise in gas prices — let alone a total collapse in living standards — to address the issue. Meanwhile, any Chinese or Indian leader who attempted to stymy income growth in the name of sustainability would be ousted in short order. It’s conceivable that one could radically reorder advanced economies in a manner that enabled living standards to rise even as GDP fell; Americans might well find themselves happier and more secure in an ultra-low-carbon communal economy in which individual car ownership is heavily restricted, and housing, healthcare, and myriad low-carbon leisure activities are social rights. But nothing short of an absolute dictatorship could affect such a transformation at the necessary speed. And the specter of eco-Bolshevism does not haunt the Global North. Humanity is going to find a way to get rich sustainably, or die trying.

Thus, the chasm between the ecologically necessary and the politically possible can only be bridged by technological advance. And on that front, the U.S. actually has the resources to make a decisive contribution to global decarbonization — and some political will to leverage those resources. Unfortunately, due to some combination of fiscal superstitions and misplaced priorities, the Biden administration’s proposed investments in green innovation remain paltry. An American Jobs Plan with much higher funding for green R&D is both imminently winnable and environmentally imperative. U.S. climate hawks should make securing such legislation a top priority.

The choice before us is techno-optimism or barbarism.

If governments are forced to choose between increasing income growth in the present, and mitigating temperature rise in the future, they are going to pick the former. We’ll get cheap, lab-grown Kobe beef before we get a U.S. Senate willing to tax meat, and steel plants powered by “green hydrogen” before we get anarcho-primitivism with Chinese characteristics.

The question is whether we’ll get such breakthroughs before it’s too late.

Techno-optimism has its hazards, but the progress we’ve made toward decarbonization has come largely through technological innovation. When India canceled plans to construct 14 gigawatts of new coal-fired power stations in 2019, it did not do so in deference to international pressure or domestic environmental movements, but rather to the cost-competitiveness of solar energy. The same story holds across Asia’s developing countries: Thanks to a ninefold reduction in the cost of solar energy over the past decade, the number of new coal plants slated for construction in the region has fallen by 80 percent. Meanwhile, the road to an electric-car revolution was cleared by a collapse in the cost of lithium batteries, the challenge of powering cities with solar energy on cloudy days was eased by a 70 percent drop in the price of utility-scale batteries, and wind power grew 40 percent cheaper. Our species remains lackluster at solidarity and self-government, but we’ve got a real knack for building cool shit.

The technological progress of the past decade was not sufficient to compensate for tepid climate policy. But real techno-utopianism has never been tried: As of 2019, global spending on clean energy R&D totaled $22 billion a year, or 3 percent of the Pentagon’s annual budget. Increasing spending on such research — while expediting cost-reductions in existing technologies by deploying them en masse — should be twin priorities of American climate policy.

The preconditions for green industrialization can be made in America.

The United States has more fiscal capacity and better-financed research universities than any nation on the planet. And, for all the pathologies of our politics, public investment in green tech inspires far weaker opposition than many less-indispensable climate policies. In fact, late last year, with Republicans controlling the Senate and Donald Trump in the White House, the U.S. increased funding for zero-emission technology R&D by $35 billion. America does not have sovereignty over enough humans to save the planet by slashing our domestic emissions. But we just might have the resources and political economy necessary to help the developing world save us all.

#### Their cap impact contradicts their second advantage because their evidence advocates for the hegemony of the US, a capitalist nation.

### Adv 2

#### China’s "private" sector companies aren't private.

Olson 20 [Stephen Olson, research fellow at the Hinrich Foundation. "Are Private Chinese Companies Really Private?" The Diplomat, 9-30-2020, accessed 1-14-2022, https://thediplomat.com/2020/09/are-private-chinese-companies-really-private/] Recut Durham SA

Such is the case with China’s “Opinion on Strengthening the United Front Work of the Private Economy in the New Era,” recently released by the Central Committee of the Chinese Communist Party (and further elaborated on by President Xi Jinping himself). This document tells us in no uncertain terms that Chinese private companies will be increasingly called upon to conduct their operations in tight coordination with governmental policy objectives and ideologies. The rest of the world should take note.

A Different Vision of “Private” Business

The 5,000 word “opinion” aims to ratchet-up the role and influence of the CCP within the private sector in order “to better focus the wisdom and strength of the private businesspeople on the goal and mission to realize the great rejuvenation of the Chinese nation.” The objective is to establish a “united front” between business and government and facilitate the “enhancement of the party’s leadership over the private economy.” According to the plan, “private economic figures are to be more closely united around the party,” thereby achieving “a high degree of consistency with the Party Central Committee on political stand, political direction, political principles, and political roads.

**Either way, US heg has failed to bring peace.**

**Fettweis 17** (Christopher J, \*Associate Professor of Political Science at Tulane University, Ph.D. from the University of Maryland, College Park, “Unipolarity, Hegemony, and the New Peace,” Security Studies 26:3, 423-451)

Conﬂict and Hegemony by Region Even the most ardent supporters of the **hegemonic-stability** explanation do not contend that US inﬂuence extends equally to all corners of the globe. The United States has concentrated its policing in what George Kennan used to call “strong points,” or the most important parts of the world: Western Europe, the Paciﬁc Rim, and Persian Gulf.64 By doing so, Washington may well have contributed more to great power peace than the overall global decline in warfare. If the former phenomenon contributed to the latter, by essentially providing a behavioral model for weaker states to emulate, then perhaps this lends some support to the hegemonic-stability case.65 During the Cold War, the United States played referee to a few intra-West squabbles, especially between Greece and Turkey, and provided Hobbesian reassurance to Germany’s nervous neighbors. Other, **equally plausible explanations** exist for stability in the ﬁrst world, including the presence of a **common enemy**, **democracy**, **economic interdependence**, general **war aversion**, etc. The looming presence of the leviathan is certainly among these plausible explanations, but only inside the US sphere of inﬂuence. Bipolarity was bad for the nonaligned world, where Soviet and Western intervention routinely exacerbated local conﬂicts. Unipolarity has generally been much better, but whether or not this was due to US action is again unclear. Overall US interest in the affairs of the Global South has dropped markedly since the end of the Cold War, **as has the level of violence** in almost all regions. There is less US intervention in the political and military affairs of Latin America compared to any time in the twentieth century, for instance, and also **less conﬂict**. Warfare in Africa is at an all-time low, as is relative US interest outside of counterterrorism and security assistance.66 Regional peace and stability exist where there is US active intervention, as well as where there is not. **No direct relationship seems to exist** across regions. If intervention can be considered a function of direct and indirect activity, of both political and military action, a regional picture might look like what is outlined in Table 1. These assessments of conﬂict are by necessity relative, because there has not been a “high” level of conﬂict in any region outside the Middle East during the period of the New Peace. Putting aside for the moment that important caveat, **some points become clear**. The great powers of the world are clustered in the upper right quadrant, where US intervention has been high, but conﬂict levels low. US intervention is **imperfectly correlated** with stability, however. Indeed, it is conceivable that the relatively high level of US interest and activity has made the **security situation** in the **Persian Gulf** and **broader Middle East** **worse**. In recent years, substantial hard power investments (Somalia, Afghanistan, Iraq), moderate intervention (Libya), and reliance on diplomacy (Syria) have been **equally ineffective** in stabilizing states torn by conﬂict. While it is possible that the region is essentially unpaciﬁable and no amount of police work would bring peace to its people, it remains **hard to make the case that the US presence has improved matters**. In this “strong point,” at least, **US hegemony has failed to bring peace.** In much of the rest of the world, the United States has not been especially eager to enforce any particular rules. Even rather incontrovertible evidence of genocide has not been enough to inspire action. Washington’s intervention choices have at best been **erratic**; **Libya** and **Kosovo** brought about action, but much more blood ﬂowed uninterrupted in Rwanda, Darfur, Congo, Sri Lanka, and Syria. The US record of peacemaking is **not exactly** a long uninterrupted string of **successes**. During the turn-of-the-century conventional war between Ethiopia and Eritrea, a highlevel US delegation containing former and future National Security Advisors (Anthony Lake and Susan Rice) made a half-dozen trips to the region, but was unable to prevent either the **outbreak** or **recurrence** of the conﬂict. Lake and his team shuttled back and forth between the capitals with some frequency, and President Clinton made repeated phone calls to the leaders of the respective countries, offering to hold peace talks in the United States, all to no avail.67 The war ended in late 2000 when Ethiopia essentially won, and it controls the disputed territory to this day. The Horn of Africa is hardly the only region where states are free to ﬁght one another today without fear of serious US involvement. Since they are choosing not to do so with increasing frequency, **something else is probably affecting their calculations**. Stability exists even in those places where the potential for intervention by the sheriff is **minimal**. **Hegemonic stability** can only take credit for inﬂuencing those decisions that would have ended in war without the presence, whether physical or psychological, of the United States. It seems **hard to make the case** that the relative peace that has descended on so many regions is primarily due to the kind of heavy hand of the **neoconservative leviathan**, or its lighter, more liberal cousin. **Something else appears to be at work**.

#### The US is losing the economic competition with China – plan flips it and sustains US leadership

Meuse 17 (Joseph, Founder and President of Belmont Partners, an international financial consulting firm, “China’s Economic Battle for Global Leadership”, <http://www.huffingtonpost.com/joseph-meuse/chinas-economic-battle-fo_b_279881.html>, 07/06/2017, NRG)

History shows that countries demonstrate their greatest strength when they are at war. People unify for a common cause, reduce their individual needs and wants and sacrifice for the greater good. We think of wars as being fought with weapons and soldiers, but the war of the new millennium is being fought on a monetary and labor scale across the globe. While we don’t yet realize it in this country, America is in an economic war with China. We have been in this economic battle for years, and are much closer to losing than we realize. As the president and founder of an international financial consulting company that works closely with Chinese companies, I see the enormity of China’s global financial influence and power on a daily basis. China gets up every morning focused on beating the West and is supremely committed to becoming the leading economic superpower in the world. From small merchants to corporate CEOs, from young children to senior citizens, the entire Chinese population is united in their goal of usurping Western economic leadership. Chinese families get up every morning focused on how to advance economically and ensuring that their children are studying hard so that they can be extremely competitive in the future. When I visit my Shanghai office, I marvel at the scores of families I see working together on the street selling products at all times of the day and night. At the provincial government level, the Chinese are focused solely on job creation and enhancing investments which ensure economic expansion. Government leaders who are not committed to this are pushed out of office quickly. At the national government level, policies are in place at the provincial level and below that foster economic progress. Anyone who stands in the way is removed as China believes the needs of the many outweigh the needs of the few. In America, we believe we are still too far ahead of China to be duly concerned and remain committed to focusing on our individual needs. Our federal and state governments continue to pass pork barrel programs. Our campaign system is so broken that once a politician is in office, they have a good chance of being a politician for life. Politicians rarely talk about our issues with China, let alone that China may surpass us as an economic superpower sooner than we think. On top of this, China has five times greater population than we have in the United States, greater natural resources and a heck of a lot more reserve money than us. When you look back at America’ history and review the Cold War and World War II as examples, our greatest times came when we were challenged. These global events pushed us to put our country first and us second. We were willing to make sacrifices then, just as the Chinese are sacrificing today, each and every day. We need to think this way again. We must start at the community level to create centers focused on economic competitiveness where job skills and corporate advancement are fostered along with education for our youth. We need to have a sense of urgency. Over the last eight years, a few U.S. factions have stood up and said we need to solve the problem of job loss and diminished competitiveness, but not much was done. Will this time be any different? If you do not believe the seriousness of the situation and what I have shared with you, I implore that you visit China. I will be there later this month where I will again see the battles and the ground they gain each and every day. I am taking my two grade school sons to China this fall, not only because I think it will open their minds, but because I am concerned that for their generation, the world will be a China-centered one. We need to wake up and realize that China is winning the battles, and at this rate, the war is almost over. Will the USA lose its superpower status in the global financial system?

#### Transition to a Chinese-led order is peaceful and prevents great power nuclear war – US reassertion of a lead role fails and breaks down institutions

Mazarr 17 (Senior Political Scientist at the RAND Corporation and Associate Director of the Strategy, Doctrine, and Resources Program at the RAND Corporation's Arroyo Center (Michael, “The Once and Future Order: What Comes After Hegemony?,” Foreign Affairs (Jan/Feb 2017): 25-32, NRG)

Few foreign policy issues have attracted more attention in recent years than the problem of sustaining the U.S.-led liberal international order. After World War II, the United States sponsored a set of institutions, rules, and norms designed to avoid repeating the mistakes of the 1930s and promote peace, prosperity, and democracy. The resulting system has served as the bedrock of U.S. national security strategy ever since. In everything from arms control to peacekeeping to trade to human rights, marrying U.S. power and international norms and institutions has achieved significant results. Washington continues to put maintaining the international order at the center of the United States' global role. Yet the survival of that order-indeed, of any ordering principles at all-now seems in question**.** Dissatisfied countries such as China and Russia view its operation as unjust, and people around the world are angry about the economic and social price they've had to pay for globalization. It's not clear exactly what Presidentelect Donald Trump's views are on the role of the United States in the world, much less the liberal order, but his administration will confront the most profound foreign policy task that any new administration has faced in 70 years: rethinking the role that the international order should play in U.S. grand strategy. Whatever Trump's own views, the instincts of many in Washington will be to attempt to restore a unified, U.S.-dominated system by confronting the rule breakers and aggressively promoting liberal values. This would be the wrong approach; in trying to hold the old order together, Washington could end up accelerating its dissolution. What the United States must learn to do instead is navigate and lead the more diversified, pluralistic system that is now materializing-one with a bigger role for emerging-market powers and more ways for countries other than the United States to lead than the current order provides. THE HOUSE THAT WE BUILT The creation of the current order, like that of its two modern predecessors-the Concert of Europe and the League of Nations-was an effort to design the basic architecture of international relations in the wake of a war among major powers. All three orders used a range of tools- organizations, treaties, informal meetings, and norms-to attain the goals of their creators. Thecurrent order'smain institutions include the United Nations, nato, the World Trade Organization, the International Monetary Fund (imf), the World Bank, and the G-20. Together, these bodies have influenced almost every aspect of the modern world. The un has provided a forum for the international community to rally around shared interests and ratify joint action. The international financial institutions have boosted trade and stabilized the global economy during crises. Multilateral treaties and agreementsbrokered through various bodies have helped avoid chaotic arms races and uncontrolled nuclear proliferation. And dense global networks of experts, activists, businesses, and nonprofits, operating within the framework of the liberal order, have built consensus and taken action on hundreds of other issues. The rules of any such order are not self-enforcing. When combined with direct state power, however, they encourage governments to accept norms of conduct such as nonaggression, the avoidance of nuclear weapons, and respect for human rights. The United States would be wise to do what it can to sustain these norms in the future. The trick is figuring out how to do so-and what, given all the changes the world is now experiencing, the emerging ordershould look like. THE NOT-SO-LIBERAL ORDER The postwar liberal order has proved remarkably stable. But it has always incorporated two distinct and not necessarily reconcilable visions. One is a narrow, cautious view of the un and the core international financial institutions as guardians of sovereign equality, territorial inviolability, and a limited degree of free trade. The other is a more ambitious agenda: protecting human rights, fostering democratic political systems, promoting free-market economic reforms, and encouraging good governance. Until recently, the tension between these two visions did not pose a serious problem. For many decades, the Cold War allowed the United States and its allies to gloss over the gap in the name of upholding a unified front against the Soviets. After the collapse of the Soviet Union, Washington fully embraced the more ambitious approach by expanding nato up to Russia's doorstep; intervening to protect human rights in places such as the Balkans and Libya; supporting uprisings, at least rhetorically, in the name of democracy in countries including Egypt, Georgia, and Myanmar; and applying increasingly sophisticated economic sanctions to illiberal governments. In the newly unipolar international system, Washington often behaved as if the narrower concept of order had been superseded by the more ambitious one. At the same time, the United States often took advantage of its preeminence to sidestep the order's rules and institutions when it found them inconvenient. The problem with this approach, of course, is that international orders gain much of their potency by defining the sources of prestige and status within the system, such as participation in and leadership of international institutions. Their stability depends on leading members abiding-and being seen to abide-by key norms of behavior. When the leader of an order consistently appears to others to interpret the rules as it sees fit, the legitimacy of the system is undermined and other countries come to believe that the order offends, rather than sustains, their dignity. An extreme version of this occurred in the 1930s, when a series of perceived insults convinced Japan-once a strong supporter of the League of Nations-that the system was a racist, Anglo-American cabal designed to emasculate it. Partly as a result, Japanwithdrew from the league and signed the Tripartite Pactwith Germany and Italy before entering World War II. Today, a similar story is playing out as some countries see the United States as applying norms selectively and in its own favor, norms that are already tailored to U.S. interests. This is persuading them that the system's main function is to validate the United States' status and prestige at the expense of their own. For years now, a number of countries, including Brazil, India, South Africa, and Turkey, have found various ways to express their frustration with the current rules. But China and Russia have become the two most important dissenters. These two countries view the order very differently and have divergent ambitions and strategies. Yet their broad complaints have much in common. Both countries feel disenfranchised by a U.S.-dominated system that imposes strict conditions on their participation and, they believe, menaces their regimes by promoting democracy. And both countries have called for fundamental reforms to make the order less imperial and more pluralistic. Russian officials are particularly disillusioned. They believe that they made an honest effort to join Western- led institutions after the fall of the Soviet Union but were spurned by the West, which subjected them to a long series of insults: nato's attacks on Serbia in the Balkan wars of the 1990s; nato enlargement into eastern Europe; and Western support for "color revolutions" in the early years of the new century, which threatened or in some cases actually overthrew Russian-backed leaders in several eastern European countries. In a June 2016 speech to Russian diplomats, Russian President Vladimir Putin complained that certain Western states "continue stubborn attempts to retain their monopoly on geopolitical domination," arguing that this was leading to a "confrontation between different visions of how to build the global governance mechanisms in the 21st century." And Putin hasn't just limited himself to complaining. In recent years, Russia has taken a number of dramatic, sometimes violent steps-especially in Europe-to weaken the U.S.-led order. China also feels disrespected. The financial crisis at the end of the last decade convinced many Chinese that the West had entered a period of rapid decline and that China deserved a more powerful voice in the international system. Since then, Beijing has increased its influence in several institutions, including the imf and the World Bank. But the changes have not gone far enough for many Chinese leaders. They still chafe at Western domination of these bodies, perceive U.S. democracy promotion as a threat, and resent the regional network of U.S. alliances that surrounds China. Beijing has thus undertaken a range ofeconomic initiatives to gain more influence within the current order, including increasing its development aid and founding the Asian Infrastructure Investment Bank, which it clearly intends to compete with the imf and the World Bank. China has also pursued its interests in defiance of global norms by building islands in contested international waters and harassing U.S. aircraftin the South China Sea. Worrisome as these developments are, it is important not to exaggerate the threats they represent. Neither China nor Russia has declared itself an enemy of the postwar order **(**although Russia is certainly moving in that direction)**.** Both continue to praise the core un system and participate actively in a host of institutions, treaties, and diplomatic processes. Indeed, China has worked hard to embed itself ever more firmly in the current order. In a 2015 speech in Seattle, Chinese President Xi Jinping said that "China has been a participant, builder, and contributor" in, of, and to the system and that it stood "firmly for the international order" based on the purposes and principles outlined in the un Charter. China and Russia both rely on cross-border trade, international energy markets, and global information networks-all of which depend heavily on international rules and institutions. And at least for the time being, neither country seems anxious to challenge the order militarily**.** Many major countries, including China and Russia, are groping toward roles appropriate to their growing power in a rapidly evolving international system. If that system is going to persevere, their grievances and ambitions must be accommodated. This will require a more flexible, pluralistic approach to institutions, rules, and norms. ALL THE RAGE Another threat to the liberal order comes from the populist uprisings now under way in many countries around the world, which have been spurred on by outrage at increasing economic inequality, uneasiness with cultural and demographic changes, and anger at a perceived loss of national sovereignty**.** For the liberal order to survive, the populations of its member countries must embrace its basic social and political values. That embrace is now weakening. The postwar order has driven global integration and liberalization by encouraging free-trade agreements, developing international law, and fostering global communications networks. Such developments strengthened the order in turn by cementing public support for liberal values. But the populist rebellion against globalization now imperils that virtuous circle. The populist surge has featured outbursts in Europe and the United States against the perceived intrusions necessary of a globalizing order. Public support for new trade agreements has tumbled. Resentment toward supranational authorities**,** such as the European Union, has risen steadily, as has suspicion of and hostility toward immigrants and immigration. The uprising has already claimed one major casualty-the United Kingdom's eu membership-and is mutating into angry, xenophobic nationalism in countries as diverse as Austria, Denmark, France, Greece, Hungary, the Netherlands, Russia, Sweden, and the United States. So far, none of these countries has totally rejected the international order**.** Populism remains a minority trend in most electorates, and support for liberal principles remains robust in many countries. In a 2016 Gallup survey, for example, 58 percent of Americans polled indicated that they saw trade as an opportunity rather than a threat**-** the highest number since 1992. Similarly, a 2016 poll by the Pew Research Center found that support for the UN among Americans had grown by nine points since 2004, to a new peak of 64 percent. Reassuring as such findings are, however, if even a quarter or a third of citizens turn decisively against liberal values in a critical mass of nations, it can destabilize the entire system. In some cases, this happens because radical parties or individuals can come to power without ever achieving more than a plurality of support. More commonly, a rejectionist bloc can ~~cripple~~ [wreck] legislatures by obstructing steps**,** such as trade deals and arms treaties, that would strengthen the prevailing order. And sometimes, as happened with the British vote to leave the eu, committed opponents of the order are joined by a larger number of worried citizens in a successful effort to roll back elements of the system. MIX IT UP International orders tend to rest ontwo pillars: the balance of power and prestige among the leading members and some degree of shared values. Both of these pillars look shaky today.For many years, U.S. grand strategy has been based on the idea that the unitary U.S.-led order reflected universal values, was easy to join, and exercised a gravitational pull on other countries. Those assumptions do not hold as strongly as they once did**.** If Washington hopes to sustain an international system that can help avoid conflict, raise prosperity, and promote ~~liberal values, it will have to embrace a more diverse order-one that operates in different ways for different countries and regions and on different issues. The United States will be tempted to resist such a change and to double down on the existing liberal order by following the Cold War playbook: rallying democracies and punishing norm breakers. But such a narrow order would create more embittered outcasts and thus imperil~~ **~~the most fundamental objective of any global order: keeping the~~** ~~peace among great powers. Dividing the world into defenders and opponents of a shared order is also likely to be less feasible than in the past. China~~**~~'s~~** ~~role in the global economy and its standing as a regional power mean that it cannot be isolated in the way the Soviet Union was. Many of today's rising powers, moreover, have preferences that are too diverse to gather into either a U.S.-led system or a bloc opposed to it~~**~~.~~**

### Adv 3

#### You have not read a single card explaining why private appropriation causes space colonization. If you give them access to the impact, give me access to the impact turn.

#### Space colonization is key to ensure human survival – pursuing it as soon as possible is crucial- your author

Kovic 18 (Marko Kovic, co-founder and president of the thinktank [ZIPAR](https://kovic.ch/zipar/), the Zurich Institute of Public Affairs Research. He is also co-founder and CEO of the consulting firm [ars cognitionis](https://kovic.ch/consulting-ars-cognitionis/),. He has a PhD in political communication, University of Zurich.)(“Why space colonization is so important”, Nov 10, 2018, https://medium.com/@marko\_kovic/space-colonization-why-nothing-else-matters-a877723f77d4)//ASMITH

Should humankind exist in the future? Should the future existence of humankind be as good as possible in as many ways as possible? If your answer to these two questions is Yes, then there is a topic that you should care about a lot: Space colonization. Why, you might wonder, does space colonization matter, possibly more than anything else, as the title of this article claims? Because the future of humankind directly and completely dependent on whether and how we manage to colonize space. Space colonization is a double-edged sword. On one hand, the creation of permanent and self-sustainable human habitats beyond Earth is unavoidable if humankind is to exist in the long-term future. On the other hand, however, space colonization could bring about a catastrophically bad future if we colonize space in a bad way. That future that might be worse than one in which humankind does not exist. Space or bust: Why we must reach for the stars Why should we pursue space colonization in the first place? Don’t we have more pressing problems today, on Earth? Yes, we do have many problems on Earth today, and we should try to solve them. But space colonization is just that: A strategy for dealing with certain problems. An the problems that space colonization would be dealing with are, arguably, among the greatest problems of them all: Existential risks; risks that might lead to the extinction of humankind [1]. Currently, all of our proverbial existential eggs are in the same basket. If a natural existential risk strikes (for example, a large asteroid colliding with Earth) or if a man-made existential risk results in a catastrophic outcome (for example, runaway global warming [2, 3]), all of humankind is at risk because humankind is currently limited to planet Earth. If, however, there are self-sustainable human habitats beyond Earth, then the probability of an irreversibly catastrophic outcome for all of humankind is drastically reduced. Investing in space colonization today could therefore have immense future benefits. Using resources today in order to make space colonization possible in the medium-term future is not a waste, but a very profitable investment. If humankind stays limited to Earth and if we go extinct as a consequence of doing so, then we will all the billions of life years and billions of humans who might have come to exist — and who would have experienced happiness and contributed to humankind’s continued epistemic and moral progress. Taking space colonization more seriously today does not, of course, mean that we should only pursue space colonization and ignore everything else that is bad in the world. We should continue dealing with current global problems and, at the same time, invest greater resources into space colonization. At this point in our history and our technological development, even modest amounts of resources directed at space colonization would go a long way, such as public funding of basic research. Additionally, it is very likely that technological advances in the domain of space colonization would improve our lives in other ways as well thanks to technology transfer [4] — investing in space colonization today would probably be a win-win situation.

#### Every second of delayed colonization kills 10^29 potential human lives

Bostrom 3 Nick Bostrom, philosopher at the University of Oxford, a Ph.D. degree in philosophy from the London School of Economics, and was a British Academy Postdoctoral Fellow at the University of Oxford, 2003, “Astronomical Waste: The Opportunity Cost of Delayed Technological Development”, Utilitas Vol. 15, No. 3, <https://nickbostrom.com/astronomical/waste.html#_edn8>, EO

As I write these words, suns are illuminating and heating empty rooms, unused energy is being flushed down black holes, and our great common endowment of negentropy is being irreversibly degraded into entropy on a cosmic scale. These are resources that an advanced civilization could have used to create value-structures, such as sentient beings living worthwhile lives.

The rate of this loss boggles the mind. One recent paper speculates, using loose theoretical considerations based on the rate of increase of entropy, that the loss of potential human lives in our own galactic supercluster is at least ~10^46 per century of delayed colonization.[1] This estimate assumes that all the lost entropy could have been used for productive purposes, although no currently known technological mechanisms are even remotely capable of doing that. Since the estimate is meant to be a lower bound, this radically unconservative assumption is undesirable.

We can, however, get a lower bound more straightforwardly by simply counting the number or stars in our galactic supercluster and multiplying this number with the amount of computing power that the resources of each star could be used to generate using technologies for whose feasibility a strong case has already been made. We can then divide this total with the estimated amount of computing power needed to simulate one human life.

As a rough approximation, let us say the Virgo Supercluster contains 10^13 stars. One estimate of the computing power extractable from a star and with an associated planet-sized computational structure, using advanced molecular nanotechnology[2], is 10^42 operations per second.[3] A typical estimate of the human brain’s processing power is roughly 10^17 operations per second or less.[4] Not much more seems to be needed to simulate the relevant parts of the environment in sufficient detail to enable the simulated minds to have experiences indistinguishable from typical current human experiences.[5] Given these estimates, it follows that the potential for approximately 10^38 human lives is lost every century that colonization of our local supercluster is delayed; or equivalently, about 10^29 potential human lives per second.

While this estimate is conservative in that it assumes only computational mechanisms whose implementation has been at least outlined in the literature, it is useful to have an even more conservative estimate that does not assume a non-biological instantiation of the potential persons. Suppose that about 10^10 biological humans could be sustained around an average star. Then the Virgo Supercluster could contain 10^23 biological humans. This corresponds to a loss of potential equal to about 10^14 potential human lives per second of delayed colonization.

What matters for present purposes is not the exact numbers but the fact that they are huge. Even with the most conservative estimate, assuming a biological implementation of all persons, the potential for one hundred trillion potential human beings is lost for every second of postponement of colonization of our supercluster.[6]

II. THE OPPORTUNITY COST OF DELAYED COLONIZATION

From a utilitarian perspective, this huge loss of potential human lives constitutes a correspondingly huge loss of potential value. I am assuming here that the human lives that could have been created would have been worthwhile ones. Since it is commonly supposed that even current human lives are typically worthwhile, this is a weak assumption. Any civilization advanced enough to colonize the local supercluster would likely also have the ability to establish at least the minimally favorable conditions required for future lives to be worth living.

~~The effect on total value, then, seems greater for actions that accelerate technological development than for practically any other possible action. Advancing technology (or its enabling factors, such as economic productivity) even by such a tiny amount that it leads to colonization of the local supercluster just one second earlier than would otherwise have happened amounts to bringing about more than 10^29 human lives (or 10^14 human lives if we use the most conservative lower bound) that would not otherwise have existed. Few other philanthropic causes could hope to match that level of utilitarian payoff.~~