## Case

1. **Moral uncertainty means preventing extinction should be our highest priority.  
   Bostrom 12** [Nick Bostrom. Faculty of Philosophy & Oxford Martin School University of Oxford. “Existential Risk Prevention as Global Priority.” Global Policy (2012)]  
   These reflections on **moral uncertainty suggest** an alternative, complementary way of looking at existential risk; they also suggest a new way of thinking about the ideal of sustainability. Let me elaborate.¶ **Our present understanding of axiology might** well **be confused. We may not** nowknow — at least not in concrete detail — what outcomes would count as a big win for humanity; we might not even yet **be able to imagine the best ends** of our journey. **If we are** indeedprofoundly **uncertain** about our ultimate aims,then we should recognize that **there is a great** option **value in preserving** — and ideally improving — **our ability to recognize value and** to **steer the future accordingly. Ensuring** that **there will be a future** version of **humanity** with great powers and a propensity to use them wisely **is** plausibly **the best way** available to us **to increase the probability that the future will contain** a lot of **value.** To do this, we must prevent any existential catastrophe.

#### **Independently, extinction turns inequality impacts – mass death causes massive amounts of inequality**

#### 2. Their impact card is from a decade ago – proves no brightline

#### 3. No solvency – the plan is not reverse-causal so the debris still remains in LEO

#### 4. Err neg – zero examples of what “space debris” would be added other than satellites, which surely can’t be their only link because more satellites are publicly owned and operated than private, 1ac wood concedes that the OPERATIONAL ones are private, the defunct ones are public

5. Independently, Primacy causes endless war, terror**, authoritarianism, prolif, and Russia-China aggression.**

**Ashford, PhD, 19**

(Emma, PoliSci@UVA, Fellow@CATO, Power and Pragmatism: Reforming American Foreign Policy for the 21st Century, in New Voices in Grand Strategy, 4, CNAS)

**Humility is a virtue**. Yet in the last quarter century, American policymakers have been far more likely to embrace the notion of America as the “indispensable nation,” responsible for protecting allies, promoting democracy and human rights, tamping down conflicts, and generally managing global affairs. Compare this ideal to the U.S. track record – **endless Middle Eastern wars, the rise of ISIS, global democratic backsliding, a revanchist Russia, resurgent China**, and a world reeling from the election of President Donald Trump – and this label seems instead **the height of hubris.** Many of the failures of U.S. foreign policy speak for themselves. As the daily drumbeat of bad news attests, interventions in Iraq and Libya were **not victories for human rights or democracy, but rather massively destabilizing** for the Middle East as a whole. Afghanistan – despite initial military successes – has become a quagmire, highlighting the futility of nation- building. Other failures of America’s grand strategy are less visible, but no less damaging. NATO expansion into Eastern Europe helped to reignite hostility between Russia and the West. Worse, it has diluted the alliance’s defensive capacity and its democratic character. And even as the war on terror fades from public view, it remains as open-ended as ever: Today, the United States is **at war in seven countries and engaged in “combating terrorism’ in more than 80**.1 To put it bluntly: America’s strategy since the end of the Cold War – **whether it is called primacy or liberal internationalism** – may not be a total failure, but it **has not been successful** either. Many have tried to place blame for these poor outcomes.2 But recrimination is less important than understanding why America’s strategy has failed so badly and avoiding these mistakes in future. Much of the explanation is the natural outcome of changing constraints. **Iraq and Libya should not be viewed as regrettable anomalies, but rather the logical outcome of unipolarity and America’s liberal internationalist inclination to solve every global problem.** It’s also a reliance on **flawed assumptions** – that what is good for America is always good for the world, for example. Support for dangerous sovereignty-undermining norms adds to the problem; just look at the Responsibility to Protect (R2P), which has proved not to protect populations or stabilize fragile states, but to **provoke chaos, encourage nuclear proliferation, and undermine the international institutions.** Perhaps, if nothing else had changed, a form of watered-down liberal internationalism that foreswore interventionism and drew back from the war on terror might have been possible.3 But international politics are undergoing a period of profound transformation, from unipolarity to regional or even global multipolarity. **Primacy** – and the consistent drumbeat of calls in Washington to do more, always and everywhere – **is neither sustainable nor prudent.** Nor can we fall back on warmed-over Cold War–era strategies better suited to an era of bipolar superpower competition.

### Advantage 2

#### 1. Governments are much more exploitative –

#### Things like the BRI, vaccine apartheid, unpaid labor during government shutdowns, colonization, and Persian Gulf wars prove nations only care about power and sovereignty

#### If private space entities only want to make money, then it is insanely profitable to bring more people to space colonies or bring back space resources which helps everyone

#### Worst of both worlds – governments are painfully slow at innovating and exploring space BUT they are equally if not more exploitative than private companies

#### 2. Mccormick is irrelevant if we prove that a better world isn’t possible to strive for within our environment, ie any extinction impact

#### 3. Spencer says nothing – the advantage would say corporate controlled future societies are not much different from our current world, but the key difference is that we will have a living society in the first place. He’s half of this advantage but his only author qual is that he’s an editor at Salon, which is some pop culture opinion website

#### 4. No reason why outer space is key to inequality or capitalism – if they’re right about imperialist elites and billionaires, Bezos and Musk wanting to colonize Mars is certainly not the brightline

#### 5. Don’t allow any 1AR squirreling – they 100% link to these next cards. Their entire impact card as well as the advantage is about why capitalism is bad

**6. Capitalism is inevitable – banning a few private space entities can’t solve for such a structurally and permanently embedded system**

**Boldizzoni 21** (Francesco Boldizzoni is Professor of Political Science at the Norwegian University of Science and Technology; 02-26-21; Economic Sociology and Political Economy; “How Capitalism Survives: Social Theory and Structural Change”; <https://economicsociology.org/2021/02/26/how-capitalism-survives-social-theory-and-structural-change/)//ZW>

For as long as neoliberalism – the face that capitalism has assumed since the 1980s – has been showing signs of aging, there has been a tendency to view every crisis as a harbinger of impending epochal change. This is true even for crises that do not originate in the economy or finance, as shown by current debates about the world after Covid-19. The interesting fact is that the sense of doom that surrounds these critical events fuels not only the hope of overcoming the disastrous social model that has dominated these last decades, but capitalism as such, which is hastily defined as “unsustainable” for the inequalities it undeniably produces, the racial injustice it perpetuates, the harm it does to the environment, and so on. the ruling classes to justify their privileges. If capitalism is an ideology, it will be enough to demystify it; once the deception is unveiled, people will see the light, is the reasoning of [Thomas Piketty](https://www.amazon.com/gp/product/0674980824/ref=as_li_tl?ie=UTF8&tag=economicsocio-20&camp=1789&creative=9325&linkCode=as2&creativeASIN=0674980824&linkId=d8a4ab4493767cc12af17cfe876a5063). More often, expectations grow in the wake of fantasies of radical change that are harbored independent of any social theory. In this theoretical vacuum, anything becomes possible: human agency is thought to be all powerful. Capitalism can be overthrown, activists tell us. **You just have to want it and persuade other people to want it.** In any case, as soon as each crisis is over, these hopeful people are faced with the inertia of history that invariably frustrates their desires. **This problem prompted me to write** [**Foretelling the End of Capitalism: Intellectual Misadventures since Karl Marx**](https://www.amazon.com/gp/product/0674919327/ref=as_li_tl?ie=UTF8&tag=economicsocio-20&camp=1789&creative=9325&linkCode=as2&creativeASIN=0674919327&linkId=6c06aff99979aecefd0fcc5f6b2ca1a7)**. The book seeks to explain the persistence of capitalism in the Western world by building a more rigorous theory of its dynamics**. To understand how capitalism is still around, despite all the troubles it has caused, I perform two related operations. The first is to examine the unfulfilled forecasts of its death that have followed one another since the mid-nineteenth century. Contrary to a widespread perception, these did not emerge from left-wing intellectual circles only but from conservative ones too. **It is, of course, important to contextualize social forecasting historically, but also to identify its errors.** Using this information, **I then get to the second step, which is to outline a theory of capitalism.** The theory I am going after should clarify what capitalism is made of, what forces have kept it alive, and possibly give us some clue as to where it is or isn’t headed. We can classify forecasts into four types based on the causal chain they assume. First, there are the implosion theories typical of orthodox Marxism, according to which capitalism would implode because of its economic contradictions. A second group includes the exhaustion theories of the likes of [John Stuart Mill](https://www.amazon.com/gp/product/0199553912/ref=as_li_tl?ie=UTF8&tag=economicsocio-20&camp=1789&creative=9325&linkCode=as2&creativeASIN=0199553912&linkId=e0a965bf69290c3c267c1636f649d6ec) and [John Maynard Keynes](https://www.marxists.org/reference/subject/economics/keynes/1930/our-grandchildren.htm). For these thinkers, capital accumulation would stop at some point due to environmental limits, saturation of material needs, moral or civilizational progress. Next come the theories of convergence that were particularly in vogue in the interwar period and the following years of the “end of ideology.” These stressed how technological development and the trend toward state planning were making capitalism and socialism increasingly resemble each other. Finally, mention should be made of the cultural involution theories associated with [Joseph Schumpeter](https://www.amazon.com/gp/product/0061561614/ref=as_li_tl?ie=UTF8&tag=economicsocio-20&camp=1789&creative=9325&linkCode=as2&creativeASIN=0061561614&linkId=96ce68cee0e750a50ad99c24f95b538c), [Daniel Bell](https://www.amazon.com/gp/product/0465014992/ref=as_li_tl?ie=UTF8&tag=economicsocio-20&camp=1789&creative=9325&linkCode=as2&creativeASIN=0465014992&linkId=eccad77014f6b2feaaca20917037c7bc), and to some extent [Jürgen Habermas](https://www.amazon.com/gp/product/0807015210/ref=as_li_tl?ie=UTF8&tag=economicsocio-20&camp=1789&creative=9325&linkCode=as2&creativeASIN=0807015210&linkId=9391ec231117db5f2749af5a9b1ec32d). These pointed to the self-defeating character of bourgeois society, emphasizing how capitalism, by breeding its parasites and critics, was undermining its own values while even the political superstructure erected to save the system from itself was prey to disintegrative tendencies. Equally varied is the repertoire of forecasting mistakes. They range from **cognitive distortions, or biases in thinking due to well-known limitations of human cognition, to more fundamental theoretical flaws that reflect a misapprehension of the relationships between social realms or involve the use of inappropriate explanatory models**. However, there is a factor that seems to have operated at a deeper level and this is the irrational faith in progress that has characterized much of modern social science. In fact, many forecasters shared two attitudes that were both legacies of the Enlightenment**: an unshakable belief that the future would bring good things and an equally strong confidence in the capacity of reason to detect laws of historical development.** Such laws would enable one to anticipate not only what was or wasn’t reasonable to expect from the future **but actually how the future would look like**. If the flaws that plague capitalism have not proved decisive for its demise, then should we conclude that its persistence is due to its virtues? The typical explanation of mainstream economics is that capitalism is sustained by its supposed efficiency, thanks to which it also tends to prevail over other systems. I don’t buy this “efficiency view” either. **My thesis is that the reasons why capitalism persists have nothing to do with the quality of its fabric but are to be found in the social structure in which it is embedded and that two elements, combined, are involved in its reproduction: hierarchy and individualism.** All complex societies are to some extent hierarchical, but capitalist society has inherited from the feudal society out of which it grew some highly asymmetrical power relations. The same dependence created by need that used to bind serfs to their lords now binds food delivery riders to their billionaire exploiters. Capitalism replaced old hierarchies with new hierarchies. It brought about a new category, namely, class, that is still very central to our societies. While social distinctions in the old world reflected status at birth, in the new world they are based on the ability to accumulate money. In this sense, capital led to a reconfiguration of social stratification. Yet, **the true element of novelty that accompanied the rise of capitalism, and the one that distinguishes it most, is individualism**. People today feel motivated by their preferences, needs, and rights, rather than by the norms and duties that come from belonging to a community. They have relationships mediated by contracts and mainly resort to the market to meet their needs. Over time, this market logic and the underlying profit motive have become increasingly generalized, even extending to sensitive spheres of human life such as work and health care. These **hierarchical social structures** and individualistic values have taken shape over many centuries and **can’t suddenly disappear**. If hierarchy has been with us for almost all time, individualism is intertwined with the particular form taken by modernization **in this part of the world. In a way, it was the price to pay to be free from oppressive forms of social control and able to make decisions for oneself. Fortunately, however, not all Western societies are hierarchical and individualistic to the same degree, which explains the existence of more or less tolerable varieties of capitalism.** For the avoidance of doubt, I do not think that capitalism will go on forever. All social systems in human history have had a beginning and, after undergoing a slow yet relentless evolution, they are eventually turned into something else. There is no reason to believe that capitalism will be an exception. But **it won’t die** because of any internal contradictions nor **just because we want it to.** Moreover, if we try to imagine what kind of system could evolve from capitalism in a few centuries, we might not like it either. As [Ralf Dahrendorf](https://www.amazon.com/gp/product/B0030DMMR8/ref=as_li_tl?ie=UTF8&tag=economicsocio-20&camp=1789&creative=9325&linkCode=as2&creativeASIN=B0030DMMR8&linkId=a711a40b51b4727a72b8a86e6e5aa8a0) once observed, the oppressed of one epoch have never become the rulers of the next. Elites have always been superseded by competing elites. That’s why, I think, achieving greater social justice under capitalism should be the highest priority for progressives. As I mentioned at the outset, I wrote [this book](https://www.amazon.com/gp/product/0674919327/ref=as_li_tl?ie=UTF8&tag=economicsocio-20&camp=1789&creative=9325&linkCode=as2&creativeASIN=0674919327&linkId=d07ce873fa23138f8a96b83dad8e45f7) with an eye for those who dream about big system change. History shows how difficult it is to achieve even small, incremental changes. While it is always good to aim high, one must put their best energies into battles that can be won. Ending neoliberalism, which is only forty years old after all, looks like a more reasonable bet.

#### 7. Capitalism is *objectively good* in space – it’s key to internet access and warming. This ev assumes *ALL* of their underview warrants – every empirical example concludes negative and independently our ev postdates theirs.

Rinehart & Thierer ’21 [William Rinehart and Adam Thierer, “Why Capitalists in Space Are Good for Americans’ Future”, 08-05-2021, https://regproject.org/blog/why-capitalists-in-space-are-good-for-americans-future/]//pranav

Nothing quite exposes differing views on innovation than billionaires launching their own rockets into space. As Blue Origin ascended, carrying Amazon founder Jeff Bezos, critics rose up against private space tourism efforts. They repeated all the same slogans as the week before when Virgin Galactic CEO Richard Branson took a trip. But the harshest critics have the story backwards. We are on the precipice of an epochal shift that will help make space travel cheaper, safer, and more accessible. Thanks to nearly two decades of reform at NASA, American entrepreneurialism and ingenuity are flourishing in space. The story is told as a failure, but it is actually a sign of success. While many praised Bezos, Branson, and Elon Musk of SpaceX for using their fortunes to advance private space travel and exploration, with the goal of even getting to Mars, a vocal group of detractors blasted these capitalists for having the audacity to look toward the stars at all. Discouraging private space exploration would be a step backwards and undo positive reforms that have made space more accessible and affordable. The way that NASA did things changed dramatically in 2005 when Mike Griffin took over as Administrator. In early 2006, the Commercial Orbital Transportation Services (COTS) program was announced, which aimed to spend $500 million to develop and demonstrate commercial space launches. It was unlike anything NASA had tried before. Instead of detailed requirements which were typical at the time, COTS spent only three pages to lay out broad cargo and crew transportation capabilities. Private industry was left to innovate on their own to meet those requirements. These contractual tweaks seem minor, but they’ve been revolutionary for NASA and for the space industry. COTS pushed SpaceX and Blue Origin to begin developing reusable rockets. SpaceX’s Falcon 9 rocket has since become a workhorse, supplying the International Space Station (ISS) and launching satellites into orbit. Another milestone was reached last year when Americans were launched to the ISS on a reused Falcon 9, the first time a U.S.-built space vehicle accomplished this feat since the shuttering of the Shuttle program. COTS and its follow-on programs demonstrate what innovation can accomplish when coupled with policy reforms. About a decade ago, NASA ran the numbers on Falcon 9 and estimated its traditional system of contracting would have cost taxpayers $4 billion. SpaceX did it for $443 million, a tenth of the cost. NASA estimated that COTS’ successor, the Commercial Crew program, saved the agency some $20 billion to $30 billion over its lifetime, ultimately reducing the cost of launching hardware into space. Cheap launches mean Starlink broadband internet is potentially feasible for rural regions. Cheap launches mean satellites like Sentinel 6 which track climate change are easier to deploy. They mean more experiments in space and a better understanding of our world. But yes, cheap launches also mean billionaires can hitch a ride to space, even if some mistakenly claim it’s just the rich living out their fantasies. We have heard similar stories before. When the Wright Brothers proved flight was possible, some predicted it would never be anything more than a toy for the rich. Astronomer William H. Pickering argued that the vision of “gigantic flying machines speeding across the Atlantic carrying innumerable passengers… would be prohibitive to any but the capitalist who could use his own yacht.” Technologies of all stripes go through this process. The automobile was a novelty of the rich until it wasn’t. Cell phones were the plaything of the wealthy until they weren’t. Space travel seems poised to travel this same arc, and it was pushed along because NASA changed course and did things better. Instead of dunking on billionaires, critics should take it as a chance to learn what has gone right and apply those lessons broadly. Smarter policy combined with American ingenuity is a recipe for success, both here on Earth and out in space.

### Solven

#### 3. Turn – limitations on commons access such as private entity restrictions lead to backlash

Stang 13

Gerald Stang (associate fellow at the EUISS) , 2013, "Global Commons: between cooperation and competition" European Institute for security studies, https://www.iss.europa.eu/sites/default/files/EUISSFiles/Brief\_17.pdf, // HW AW

Rapid economic development and increasing international trade are leading to a more crowded international stage and raising new challenges in the ‘global commons’ – those domains that are not under the control or jurisdiction of any state but are **open for use by countries, companies and individuals from around the world**. Their management involves increasingly complex processes to accommodate and integrate the interests and responsibilities of states, international organisations and a host of non-state actors. Shared rules regarding the usage of - and access to - the global commons encourage their peaceful and cooperative use. Over the last seven decades, the US has led in the creation of a liberal international order which has attempted to define these rules in such a way as to make it easier and more beneficial to join the order and follow the rules than it does to operate outside of (or undermine) it. With the rise of nonWestern, less liberal powers - particularly **China - questions must be asked regarding the durability of the existing processes for managing the global commons,** along with the potential for developing effective new processes that can address new threats and challenges. The EU is uniquely positioned to play an important role in giving value to existing multilateral frameworks and in developing new ones for international cooperation in these domains. But with a multitude of competing interests among stakeholders, much work remains to be done. What exactly are the global commons? Security analysts generally identify **four domains as global commons: high seas, airspace, outer space** and, now, cyberspace. From a security perspective, the primary concern is safeguarding ‘access’ to these domains for commercial and military reasons. It is important to highlight that this language differs from the discourse on commons developed by environmental analysts: their arguments focus on damage to the ‘condition’ of the commons from overuse by actors who do not have to pay direct costs. They worry about the depletion of shared resources such as ocean fish stocks, or the damage to shared domains such as Antarctica or the atmosphere. A third strand of analysis looks not at the need for ‘access’ to or preservation of the ‘condition’ of the commons, but at the capacity of the commons to provide ‘global public goods’. As there is no accepted definition of a global public good (a functioning trading system, peace, clean water, electricity, the internet, and many other things are often included), it may be wiser to focus on the four global commons relevant to security analysts mentioned above. While there are major differences between the ‘access’ views of security analysts and the ‘condition’ views of environmentalists, both are concerned about how the Global commons: Between cooperation and competition by Gerald Stang Photo by NASA / Rex Features (1568628a) European Union Institute for Security Studies April 2013 2 rules for use of the commons are set and enforced. In today’s interconnected world, **any limitations on access to the commons would be highly disruptive**. Militaries rely on access to the commons to pursue security goals in domains outside their sovereign control. Economic actors rely on the commons to trade and conduct business. **Changes to the condition of the commons can therefore disrupt commerce and security, not to mention the status of the global environment.** Each of the four commons discussed below possesses unique attributes and poses unique challenges for international cooperation and governance. Sea As the primary avenue for international commerce since ancient times, norms for access to and passage on the seas have developed and evolved over many years. Only in recent decades, however, have there been agreed regulatory frameworks and institutions to manage them. The UN Convention on the Law of the Sea (UNCLOS), first initiated in 1956 though not legally in force until 1994, is the primary international treaty regarding the sea, laying out rules for territorial boundaries (22km from shore), resource management and the rights of states within their exclusive economic zones (370km from shore). The International Tribunal for the Law of the Sea (ITLOS), created by UNCLOS, has the power to resolve disputes by States Parties. Except for the US, most countries and all global powers - including the EU-27 - have signed and ratified UNCLOS. The UN International Migratory Organization (IMO), created in 1948, regulates international shipping and rulings on safety, environmental and technical cooperation issues (the EU has observer status). As the world’s only global sea power, the United States has historically seen itself as the protector of free movement on the seas. With 11 carrier groups (Russia has one, rarely used) and hundreds of naval bases and allied ports throughout the globe, the US has a naval footprint that dwarfs all its allies and competitors. While countries such as Iran and China may be uncomfortable with US capacity to deny others access to the sea, US support for the creation and respect of transparent international regulations for use of the sea (which they adhere to themselves despite not having ratified UNCLOS), has allowed for the stable management of access to the seas. Except for the disruptive (but still rare) threat of piracy, access to the seas is generally a smooth and well-regulated process. The massive and relatively effective, if ad hoc, global response to the localised piracy problem off the coast of Somalia (for which the EU launched Atalanta, its own anti-piracy mission under the CSDP) highlighted the world’s impressive capacity to handle disruptions of this type. Territorial disputes exist in places like the South China Sea, but relate to historical boundary disagreements rather than conflict over rules of sea access. Normally, no state has an interest in disrupting sea trade. Even in times of crisis, while individual states may wish to deny their opponents access to certain regions, they are unlikely to harm their own interests by disrupting traffic on the world’s oceans. Environmental ‘condition’ issues in the sea commons are disconnected from ‘access’ issues. No single international treaty or body addresses pollution, overfishing or the various challenges in the melting Arctic. A confusing patchwork of sea basin cooperation groupings, regional fisheries management organisations and pollution monitoring agreements is in place. The integrated marine policy of the EU recognizes the need to improve governance of the seas while avoiding treaty congestion. While no unifying treaty or body to manage maritime issues is likely to appear, years of patient discussion in a variety of venues (of the type that the EU excels at) may lead to greater coherence and cooperation in managing environmental threats. Air International air travel requires the use of national airspace for continuous transit and involves detailed agreements that define transit rights. The UN International Civil Aviation Organisation, established in 1947, is the leading institution for regulating air travel. All EU countries are members, while the EU has observer status. As with piracy at sea, any potential disruption of access to the air commons is likely to come from non-state actors. While terrorist events can disrupt air traffic, however, intergovernmental cooperation between national police and security agencies is well established. Any systemic threat to the air commons appears so unlikely that some security analysts do not even include air as a one of the commons. Also like the sea commons, issues of management of environmental ‘condition’ are disconnected from ‘access’ issues. The accumulation of greenhouse gases is a form of pollution of the atmosphere, but the alarm stems from their effects on the biosphere rather than from the risk that the atmosphere may become unbreathable or inaccessible. The EU is a global leader on climate change, with the world’s most comprehensive emissions trading scheme and intense efforts to regulate and limit emissions. The Union has set the tone at the international level but has been unable to win agreement for an internal carbon tax or stronger emissions targets from external partners. European Union Institute for Security Studies April 2013 3 Space More than a thousand orbiting satellites facilitate communications in both the military and the civilian spheres, regulated by a mix of UN guidelines, bilater- al Cold War agreements and industry standards. The UN International Telecommunications Union (ITU) allocates radio spectrum and satellite orbits and develops international technical standards. Established in 1869, the ITU has almost universal membership among existing states, including all EU countries - though not the EU itself. The 1967 Outer Space Treaty, signed by all spacefaring nations, provides the minimal framework for activities in space, banning weapons of mass destruction and preventing states from claims to celestial bodies. The Treaty does not establish infrastructure for coordination, and consultation among party states is ad hoc. Following China’s destruction of one of its own satellites in 2007, there has been increasing concern about protection of satellites from attack. During the later stages of the Cold War, the US and the USSR tacitly agreed to a moratorium on testing anti-satellite weapons (ASAT) - but there are no binding rules in place. The satellite’s destruction also created a debris cloud which could have damaged other satellites or spacecraft. Unlike the sea and air domains, the problem of debris management in space indicates an overlap between ‘access’ and ‘condition’ issues. While access to space has previously been limited to a small number of states, **the increasing role of new actors (including from the private sector) suggests that the creation of comprehensive and binding regulations for the space commons may become more difficult.** The EU has pushed to become a key actor in space matters, working with the European Space Agency (ESA) - an intergovernmental body - on Galileo, Europe’s civilian satellite navigation system. In an effort to get ahead of the curve and manage uncertainty, the European Council approved a voluntary Code of Conduct for Outer Space Activities in late 2008 (revised in 2010) to address both space operations and space debris. It has only limited operational requirements but develops important cooperation, consultation, and notification mechanisms. To make it more palatable to the US and other states, it is not binding and has no enforcement mechanism. As with many efforts in multilateral regulation of the global commons, the US has been hesitant to agree to the Code for fear of diminishing its own freedom of manoeuvre. It may be an important step, however, in setting the groundwork for future space cooperation if the EU can follow up on the Code’s development with diplomatic action by bringing other space-faring countries on board. Cyberspace Cyberspace differs from the other commons because it is not a physical domain and because of the preponderant role of the private sector in both the infrastructure and the management of the domain. All of the physical nodes of the internet also exist within states and are subject to national law, rather than existing physically outside of national control as for the other commons. The American and security-related roots of the internet are reflected in how technical internet standards are managed. The Internet Corporation for Assigned Names and Numbers (ICANN), a private non-profit entity under contract with the US government, has ensured the coordination of internet addresses and registries since 1998. While ICANN operations have been stable - and their inclusive governance style has won imitators for handling technical issues - many countries prefer a formal international body to manage technical internet issues. The ITU has been suggested as a neutral management body, but this idea has been resisted by most Western states. Interestingly, non-Western states are pushing for international management of the internet within a framework that provides individual countries with rights and roles, rather than leaving it to the nonprofit sector to decide how the internet works. All EU-27 countries are members of the ITU and, following a European Parliament deliberation, voted as a bloc against the measures granting more power to the ITU, concerned over states wishing to regulate, control, and limit internet use. The UN Internet Governance Forum (IGF) has become the leading multi-stakeholder platform for states and other actors to debate internet governance. Regardless of the ICANN/ITU issue, states can filter and censor within their territories, and for the time being, efforts to protect against cyber attacks remain within the national sphere. Cyberspace allows for the spread of information, creating pressures for transparency in both democratic and non-democratic states. Discussions on the management of cyberspace, therefore, have become connected with those on the power of states to control information. Finally, although there is no environmental constitu- ency for cyberspace, there are constituencies of users and providers - private and public - who play a similar role in pushing for the protection of certain conditions in cyberspace. Unlike for sea and air domains, therefore, there is overlap between ‘access’ and ‘condition’ discussants. With worries about Cold War-style espionage and cyber conflict between states, cyber security problems European Union Institute for Security Studies April 2013 4 QN-AK-13-017-2A-N | ISSN 2315-1110 are expected to grow worse and are unlikely to be addressed through multilateral fora. Problems with hackers of various types make problems of attribution, response and coordination of policing very difficult. Cyber conflict involving states will ebb and flow along with the quality of the relationship between those states and competing states will continue to test each other’s cyber defences.

#### 4. The term global commons leads to a false sense of security which exploits whatever is supposedly being protected

**Clancy 98** (The Tragedy of the Global Commons, Spring 1998, <https://www.repository.law.indiana.edu/cgi/viewcontent.cgi?article=1136&context=ijgls> pecial Assistant to the Deputy Secretary

of State, US Department of State, Indiana Journal of global legal studies)//HWLND

The inherent problem in this communal property is the idea put forth byGarrett Hardin in his 1968 article entitled The Tragedy of the Commons." Hardin theorized that in communal property systems, each individual enjoys the benefit of exploiting the resource to its maximum, while the cost of this increased utilization is spread out over all users. Consequently, there is incentive for individual over exploitation. Applying this theory to global expanses shows that "the disadvantage inherent in this doctrine is that nations are free to make maximum use of resources because no outside mechanism exists to force their acceptance of external costs, either the cost of resource degradation or the cost of resource depletion."'" Much like the herding commons depicted in Hardin's essay, global commons are susceptible to overuse. 19 This problem is indeed a serious one. Global commons become, in effect, a target for over exploitation. Moreover, critics have addressed the problems of free riders and the Prisoner's Dilemma in dealing with commons.2 " The end result is the same, however. These global commons fall victim to the predatory interest of individual exploiting nations.

#### 5. Stick them with Goehring ev as the plan; the plan’s a global common as per that card, if you don’t, we have no idea what a global commons is

#### 6. Their Goehring solvency advocate concedes that global commons is about the consumption of open access resources – that links to all of their criticisms of private companies and it means public governments become just as bad

#### 8. Restrictions on space access get circumvented by underground and foreign private institutions Jirakindakul & Kovudhikulrungsri ‘10

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Currently, there are four function satellites under Thailand’s communication satellite fleet. THAICOM-1A was launched on December 1993 and on October 1994, THAICOM-2 was launched. THAICOM-3, launched in 1997, was replaced by THAICOM-5 on October 2006 due to power loss. THAICOM-4 or IPSTAR, launched on August 2005 is a new generation of broadband satellite that would serve the demand for high-speed broadband Internet access. They cover areas from Central Europe through Asia coasts.40 Figure 2 depicts the shareholding structure of Shin and SATTEL as on January 20, 2006, before the transaction. Shin Corp held shares in SATTEL to the tune of 51.48% which was in compliance with the shareholding ratio condition in the Concession Agreement.41 The major shareholders of Shin securities, at that time, were the Shinawatras and their relatives. Temasek is an Asian investment house owned by the government of Singapore. Its markets are mainly Singapore, Asia and other emerging economies. Amongst this, Thailand can be considered as one of its potential market. However, the name of Temasek became familiar to Thai people after the successful takeover of Shin Corp. Temasek wished to purchase 49.59% of Shin’s shares but the then 39.02% foreign shareholding ratio in Shin made such purchase impossible to succeed without turning Shin into a “foreign juristic person” under Thai domestic law. This would also terminate concessions in Shin’s subsidiaries. Hence the transaction had to be completed through nominees, namely, Cedar Holdings and Aspen Holdings. On January 23, 2006, during the term of Prime Minister Thaksin Shinawatra, Temasek – through its nominees – successfully acquired 49.59 % stake of Shin for an approximate amount of Baht 73,300 million, or Baht 49.25 per share. At that time, Baht 40.0171 equalled to USD 1.42 4 1 FRANCIS LYALL & PAUL B. LARSEN, SPACE LAW: A TREATISE 378 (1st ed. 2009). 4 2 Concession Agreement, supra note 39, § 4.2. The original Concession Agreement mentioned that Shin has to hold at least 51% of the total shares in SATTEL. This **clause was amended to decrease the ratio** from 51% to 40% on October 27, 2004 during the Shinawatra administration. 4 3 Bank of Thailand Foreign Exchange Rate, Figure 3 indicates the structure of the deal and the shareholding structure after January 23, 2006. The 49.59% of shares were divided into 10.97% and 38.62% and purchased by Aspens Holdings and Cedar Holdings respectively. This large portion of share acquisition reached the tender offer trigger point. However, with regard to SATTEL’s stake, Cedar and Aspen were asked by the Securities and Exchange Commission not to make any tender offer for SATTEL’s securities owing to the fact that Cedar and Aspen had no intention to acquire the SATTEL’s securities and that it was considered immaterial to Shin’s assets value.44 **After the Shin-Temasek deal, SATTEL**, one of the Shin’s subsidiaries, operating four communication satellites under the awarded concession **is indirectly controlled by Temasek**, a Singaporean state-owned enterprise even though Shin changed its shareholding ratio in SATTEL from 51% to 41%. B. Thai Domestic Laws on Foreign Investment To stimulate economic growth in developing countries, foreign direct investment is an important factor. On the other side, nationalism still has influence in developing countries, including Thailand, so they wish to reserve their resources and business for their nationals. This controversy leads to the enactment of general and specific legislations on foreign investment i.e. **the Foreign Business Act** B.E. 2542 (1999) (FBA), which **governs the scope and types of permitted or prohibited business for foreigners in general**, and the Telecommunications Business Act, B.E. 2544 (2001), which particularly focuses on telecommunication sector. i. Foreign Business Act B.E. 2542 (1999) of Thailand The Foreign Business Act B.E. 2542 (1999) (FBA) defines a foreigner in Section 4. The scope of this paper focuses only on “foreign juristic person”, which is defined in Section 4 (2) – (4) as follows. “Foreigner” means… (2) Juristic person not registered in Thailand. (3) Juristic person registered in Thailand having the following characteristics: (a) Having half or more of the juristic person’s capital shares held by persons under (1) or (2) or a juristic person having the persons under (1) or (2) investing with a value of half or more of the total capital of the juristic person. (b) Limited partnership or registered ordinary partner-ship having the person under (1) as the managing partner or manager (4) Juristic person registered in Thailand having half or more of its capital shares held by the person under (1), (2) or (3) or a juristic person having the persons under (1), (2) or (3) investing with the value of half or more of its total capital.46 4 6 Supra note 38, art. Subsection (2) is simply understood. Subsections (3)-(4) use the phrase ‘capital share’. As a result, **in order to be considered a foreign juristic person, more than half of such juristic person’s share has to be held by a foreigner**. It does not have to track the shareholding ratio of the shareholder again. This clause solved the problem on the interpretation of the repealed law on foreign investment, the Announcement No. 281 of **the National Executive Council** B.E. 2515 (1972).47 In other words, it **allows foreign firms to set up subsidiaries that are nominally owned by Thais but actually controlled by foreigners.**48 In addition, **the concept of foreign juristic person had been challenged on the basis of voting right structure**. The share ratio of 51-49 can be twisted to form a nominee company by mentioning the 51% shares as a preferred share which has less voting right. The outcome is that the **foreign shareholders can always control majority vote even though they have a lower share ratio.** This practice has been approved by the Thai Ministry of Commerce since 1988.49

#### 9. Public and private companies must work together to overcome blockages that each industry face, only together can the process be expedited

Houser 17 (Kristin Houser is a writer for Futurism , where she covers science and tech. Her written work has appeared in Business Insider, NBC News, and the World Economic Forum’s Agenda, among other publications https://futurism.com/private-companies-not-governments-are-shaping-the-future-of-space-exploration) //HWLND

Private companies may be in the lead, but the finish line for this Space Race isn’t exactly clear. The first iteration was arguably “won” when Neil Armstrong took his first steps on the Moon, so does this sequel end when we establish the first Moon base? When a human walks on Mars? When we leave the solar system? Truthfully, the likelihood of humanity ever calling it a day on space exploration is slim to none. The universe is huge, with galaxy estimates in the trillions, so the goalpost will continue moving back (to bring another sport into the analogy). Rather than focusing on competing in what is ultimately an unwinnable race, private and government-backed space agencies can actually benefit from collaboration thanks to their inherent differences. “The way that SpaceX, Planetary Resources, or Virgin Galactic approaches space exploration is going to be very different from NASA or the Air Force,” explains Lewicki. Private companies aren’t beholden to the same slow processes that often stall government projects, and they can secure or reallocate funding much more swiftly if need be. However, unlike agencies like NASA, they do have shareholders to keep happy and a need to constantly pursue profitability. The two sectors, therefore, have a tremendous opportunity to help one another. Private companies can generate revenue through government contracts —for example, NASA has contracted Boeing to transport astronauts to the International Space Station (ISS), and SpaceX just closed a deal with the U.S. Air Force to launch its secretive space drone. This leaves the government agencies free to pursue the kind of forward-thinking, longer-term research that might not immediately generate revenue, but that can be later streamlined and improved upon in the private sector.

#### 10. Private entities are uniquely crucial to space exploration especially since governments are no longer interested after the space race

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Jeff Bezos, the richest man on earth, has said that he has been funding his space technology firm Blue Origin at the rate of $1 billion a year and will continue to pump in his “Amazon lottery winnings into a much lower price of admission so we can go explore the solar system." He can afford it — with a net worth of $131 billion, he is richer than two-thirds of the countries of the world. And, along with Elon Musk, the founder of SpaceX, he is the face of the next giant leap of capitalism — into space. Science fiction predicted most of humanity’s technological advancements — from submarines to television, from rockets to robots. But even the most clairvoyant of sci-fi authors failed to foresee that **planet earth would lose interest in manned space exploration after putting a man on the moon.** The space race of the 1950s and 1960s had a grandiose political purpose. **When that battle had been settled, placing communication satellites in orbit became by far the major activity.** Yes, space shuttles were launched, an International Space Station (ISS) is up there, but this was hardly space exploration. The US National Aeronautics and Space Administration’s (NASA) budget, in constant 2014 dollar terms, peaked at $43.6 billion in 1966; it was $18.9 billion in 2017. There were huge potential pay-offs — the obvious one being mining minerals on asteroids and other planets, **but to governments, the returns on investments were too far-off to commit the massive upfront cash outlays.** And thus it stayed for 40 years, till a new breed of capitalists emerged — whose dreams sought frontiers beyond earth. “Our planet is finite," Bezos has said. The turning point was the retirement of the space shuttle in 2011. As a result, NASA awarded billions of dollars of contracts to private companies to carry astronauts and cargo to the ISS. **The industry suddenly bloomed; there are more than a thousand space companies in the US today.** Investment bank Goldman Sachs estimates that space start-ups have, globally, attracted $13.3 billion of investment since 2010. In 2015, President Barack Obama signed the US Commercial Space Launch Competitive Act into law, guaranteeing private companies rights to own, sell and profit from resources extracted from asteroids and other “celestial bodies". In August 2017, Luxembourg became the first European country that officially allows space resources to be “appropriated" by commercial groups based in the country. Many companies have since then set up shop in Luxembourg. Bezos’ Blue Origin has successfully launched and landed several sub-orbital flights. In February this year, SpaceX launched Falcon Heavy into orbit around the sun. The company is aiming to have manned flights by the end of the year, and says that Big Falcon Rocket (BFR), its spaceship for interplanetary travel that may carry up to 100 passengers, will be ready in 2019. Meanwhile, Bigelow Aerospace, owned by Robert Bigelow, who made his billions from his budget hotel chain, plans to set up hotels that will orbit earth. Among start-ups that are focused on space mining, Planetary Resources points out that just one little near-earth asteroid called 3554 Anum has $8 trillion worth of platinum reserves, while our current annual output is $12 billion, of which 88% comes from three mines in South Africa.

#### 11. Space colonization is an insurance policy which guarantees human survival and avoids nearly every single extinction threat

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Right at the beginning of the book, you make the shocking prediction: “**Either we must leave the Earth or we will perish.**” Are humanity’s prospects really that dire? And doesn’t this play into the nihilistic feeling that there is nothing we can do to save this planet? If you take a look at evolution on Earth, 99.9 percent of all life forms have gone extinct. When things change, either you adapt or die. That’s the law of Mother Nature. We face various hazards. First of all, we have self-inflicted problems like global warming, nuclear proliferation and bio-engineered germ warfare. Plus, Mother Nature has hurled at the Earth a number of extinction cycles. The dinosaurs, for example, didn’t have a space program. And **that’s why the dinosaurs are not here today.** On the other hand, we shouldn’t use this as an excuse to pollute the Earth, or let global warming run amok. We should cure these problems without having to leave for Mars or another planet, because it’s impossible to remove the entire population of Earth to Mars. **We’re talking about an insurance policy—a backup plan in case something does happen to the Earth.** I once talked to Carl Sagan about this, who said, “We live in the middle of a shooting gallery with thousands of asteroids in our path that we haven’t even discovered yet. So, let’s be at least a two-planet species, as a backup plan.” One of the beautiful images you conjure is of ballet dancing on Mars. Explain why this may one day be less fanciful than it seems. We have the Olympics, where we have athletes that understand the laws of gravity on Earth, but once we’re on the moon and Mars, we have a totally different set of physical constraints. Here, ice skaters can’t do anything more than a quad; four rotations in the air and that’s it! No one has ever done a quint. However, on Mars the gravity is only 30 percent of Earth, so one day we may have an Olympics on Mars where people could do four, five, six, seven rotations in the air, and ballet, or acrobatics, and gymnastics. A whole new set of athletes could be formed because they are adapted to a new environment where the gravity and air pressure is lower. The astronaut Alan Shepard was the first one to golf—golf—on the moon! He snuck on a pair of golf irons. NASA was horrified, yet in the Smithsonian Museum now, you can see a replica of the golf clubs he used, to prove that interstellar sports could become a real possibility. You use the phrase “the fourth wave of science.” Explain what this means and how it could one day make it possible to terraform Mars. We’ve had three waves of scientific innovation. The first wave, the Industrial Revolution, gave us the steam engine, the locomotive, and factories. The second wave was electricity and magnetism, whereby we had TV, internal combustion cars, a beginning of the space program. The third revolution is high tech: computers, lasers, the Internet. Now we have the fourth wave of innovation: artificial intelligence, biotech, and nanotech. That’s going to change the way we view Mars. Many people say Mars is cold and desolate, and there’s nothing to grow there. We can genetically modify plants and algae to thrive in the Martian atmosphere. But who’s going to do the heavy lifting? We all would like to see futuristic cities on Mars, but robots are going to become much more adapted to working in these harsh environments by the end of this century, so we expect to see robotic construction workers building the fantastic domed cities you see in science fiction novels.