# 1

#### Util creates a moral obligation to oppress people, when their suffering would cause a greater amount of happiness for the majority. Gold 19

Gold, Jeffrey & Devalve, Michael. (2019). Utilitarian and Deontological Approaches to Criminal Justice Ethics. 10.4324/9780429203626-3.\

According to utilitarianism, an action is moral when it produces the great-est amount of happiness for the greatest number of people. A problem arises, however, when the greatest happiness is achieved at the expense of a few. For example, **if a large group were to enslave a very small group, the large group would gain certain comforts and luxuries (and the pleasure that accompanies those comforts) as a result of the servitude of the few**. **If we were to follow the utilitarian calculus** strictly, **the suffering of a few (even intense suffering) would be outweighed by the pleasure of a large enough majority**. A thousand people’s modest pleasure would outweigh the suffer-ing of 10 others. Hence, utilitarianism would seem to endorse slavery when it produces the greatest total amount of happiness for the greatest number of people. This is obviously a problem for utilitarianism. **Slavery and oppression are wrong regardless of the amount of pleasure accumulated by the oppressing class. In fact, when one person’s pleasure results from the suf-fering of another, the pleasure seems all the more abhorrent.** The preceding case points to a weakness in utilitarianism, namely, the weak-ness in dealing with certain cases of injustice. Sometimes it is simply unjust to treat people in a certain way regardless of the pleasurable consequences for others. A gang rape is wrong even if 50 people enjoy it and only one suffers. It is wrong because it is unjust. To use Kant’s formulation, it is always wrong to treat anyone as a mere means to one’s own ends. When we enslave, rape, and oppress, we are always treating the victim as a means to our own ends.

#### Util dehumanizes disability and the curing of secondary pity to increase the disabled’s “welfare”

Stein 01 Mark is the author of Distributive Justice and Disability: Utilitarianism against Egalitarianism (Yale University Press, 2006) [Stein, Mark S. “Utilitarianism and the Disabled: Distribution of Life.” Social Theory and Practice, vol. 27, no. 4, 2001, pp. 561–578. JSTOR, [www.jstor.org/stable/23559190. Accessed 23 Nov. 2020](http://www.jstor.org/stable/23559190.%20Accessed%2023%20Nov.%202020).] //Lex AKo

**If the disabled have on average less welfare** than nondisabled people, it seems to follow that the disabled benefit less from continued life than do nondisabled people. **Utilitarianism would therefore place a lower value on disabled life** than on nondisabled life, and if a choice had to be made between saving the lives of disabled people and saving the lives of nondisabled people, utilitarianism would counsel us **to give less preference to the disabled**. So, for example, disabled people would receive less preference, in the distribution of life-saving organ transplants, than nondisabled people. Moreover, the utilitarian preference against disabled people in the distribution of life would appear to be exactly **proportional to the** utili tarian **preference in** favor of disabled people in the **distribution of resources**. However **morally urgent it might be to cure a given disabled person**, **increasing her welfare**, it would seem that the same moral ur gency must attach to a decision to preserve the life of a nondisabled person in preference to that disabled person, assuming that only one of them 13Mark Stein, "Utilitarianism and the Disabled: Distribution of Resources," Bioethics 16 (2002), forthcoming. 14See ibid.

#### They read morally repugnant arguments. This is an independent reason to drop the debater, to ensure that debate remains a space safe for all – the judge has a proximal obligation to ensure inaccessible practices don’t proliferate. Accessibility is a voting issue since all arguments presuppose that people feel safe in this space to respond to them.

# 2

#### There are four links here. First: language of common heritage espoused by the affirmative upholds extractionist biopolitic that undergirds harms of case. Frames outer space as a resource to be divided up between national actors and other non-state entities. Fixes sovereignty in traditional ways. Plan *protects sovereign* from radical non-state actors who might utilize resources before the sovereign can. Second, plan creates a whole new set of subjectivities through an overarching technological rationality of surveillance and exploitation. Third, control of outer space through legal regimes furthers the perception of an objective countable world of administrative power that operates only materially without human input. Fallacy of governmentality. Finally, it defines humanity in a narrow rationality of enumeration and extraction that only furthers the crisis of subjectivity driving case harms.

Craven 2019 [Matt, Professor of International Law, SOAS University of London] “‘Other Spaces’: Constructing the Legal Architecture of a Cold War Commons and the Scientific-Technical Imaginary of Outer Space,” **European Journal of International Law** Vol. 30 no. 2

121 In the first place, as the Nigerian representative in COPUOS noted, the language of the ‘common heritage of mankind’ had facilitated a subtle shift from a language of exploration to that of exploitation.122 Outer space was no longer simply a site of speculative scientific endeavour or open to projects of exploration and discovery, but it had become a resource or, indeed, as Myres McDougal and others were to explain, a myriad of resources of varying kinds, in which everything from solar radiation, magnetic and gravitational forces, wave lengths, geostationary locations123 through to meteors tracking through the solar system came to be conceptualized in terms of their ultimate ‘value’ or ‘utility’.124 Once again, thus, one sees the presence of a particular technological rationality undergirding the outer space regime, in which the natural and human environments were to be understood to be the objects of an instrumental reasoning that concerned itself with how they might be manipulated, controlled, exploited and, ultimately, commodified, and in which the technology through which those ends were to be both conceived and achieved (space rockets, probes, telescopes, satellites, planetary rovers and so on) would take the form of a passive, neutral, medium  –  as mere machines and mechanisms or as ways of doing things.125 The embrace of this rationality may, on the face of it, be seen to have been utterly perverse: the ultimate outcome of a desire to avoid a competitive stripping of the resources of the moon and other celestial bodies, resolving itself in the creation of a regime in which that objective, and that way of thinking about our planetary environment, was not just dominant but also subordinate to everything else. The technology through which those projects were to be made thinkable, furthermore, was clearly only ‘neutral’ to the extent that one could separate its existence from the fact of its (largely exclusive) possession and control by two violent, competitive, superpowers.126 As Marcuse observed, however, that same rationality – common to both Western and Soviet state forms127 – cut deeper than this. On the one hand, the technologies of mass communication, surveillance and warfare were to profoundly shape the perception, experience and apprehension of everyday life, creating a ‘technological reality’ of an ‘object world’ conceived ‘as a world of instrumentalities’.128 On the other hand, however, that same rationality would serve to alienate the subject from their life world through their incorporation into the ‘technological community of the administered population’.129 The domination of nature that technology appeared to enable was thus only one side of a formation that had, as its complement, a human domination propagated through the technological ‘administration’ of the subject and the manufacture of human desires, needs and interests.130 To the extent, then, that the Moon Treaty embraced this rationality, it was one that was ultimately pacifying in effect, swallowing up and repulsing all alternatives, bringing all within the sway of the same totalitarian tendency. In the second place, and as an apparently countervailing measure, was the idea that access to, and the use of, outer space resources should be subject to an international regime, the ‘purposes’ of which were set out in Article 11(7). Just as the International Telecommunication Union managed the ‘technical’ distribution of wavelengths and frequencies, allocating slots in the geostationary orbit, and just as the World Meteorological Organization coordinated the collection and dissemination of meteorological data, so also it was envisaged that the resources of the moon should similarly be subject to the oversight of an international regime of rational administration. The anticipated regime, it was explained, would concern itself with the ‘orderly and safe development of the natural resources’, their ‘rational management’, ‘the expansion of opportunities in the use of those resources’ and an ‘equitable sharing of the benefits’. The model of administration imagined here was one clearly designed to displace the possibility of unrestricted pillage or of primitive accumulation, and the language deployed elicited a sense of distance from precisely those ideas. No mention is made of the practices of extraction, commodification or exploitation that might be enabled; rather, it is faintly suggested, the moon might be ‘improved’ through its ‘development’, terraformed perhaps into a site fit for tourism or colonization? Yet, by the same token, the arrangements seemed to be concerned merely with the transfiguration of relations of power into bureaucratic technique and, in doing so, maintained in place the very same conditions that underpinned the practices to which it was opposed. Certainly, it was clearly envisaged that a further agreement would follow, setting out in more detail the administrative arrangements required for the purposes of the ‘equitable sharing of benefits’. Certainly, it was also possible that such arrangements might include the transfer of technology, the sharing of science and the distribution of profits. But no measure of administration could avoid the observation that the regime was to authorize in space precisely the same operations that had been productive of the material inequalities on earth, albeit this time it was ‘colonization’ or ‘conquest’ in the name of humanity (‘mankind’) rather than some small subset of the same. Finally, and related to this, the very ‘commonness’ of humanity to which the regime gave expression was ultimately a vestigial one. Humanity was to be represented here, not as a universal community of free-willing subjects or as a set of values – of rights or needs – but, rather, through the mediate category of material ‘interests’; the exploration and use of the moon, as Article 4 puts it, ‘shall be carried out for the benefit and in the interests of all countries’. What humanity had in common, thus, and what defined it once one took away the categories of rule and ownership, was a fluid, economy of ‘interests’,131 the fulfilment of which was always more or less and which was open to be bargained, traded, sacrificed and exchanged. These ‘interests’ assumed the same metaphorical function of assets and liabilities in double-entry bookkeeping – as abstract quantities capable of being compiled, indexed, managed, balanced and administered in the same way as the material resources to which they appeared to relate. Whilst undoubtedly central to the foundations of both capitalism and liberal democratic thought,133 they bespoke, in the same measure, of  a natural social mechanism or instinct that transcended time and place, that was universally operable and ascribable equally to ‘future generations’ as much as to those of the present. They were/are, in that sense, always ‘common’ and everywhere present, even if the plea to ‘commonness’ would frequently arrive in the form of a demand for their moderation. Their function, however, has been to rationalize social relations, describe their operative mechanics and authorize sovereignty, all in a manner akin to the market – in which human life, qua interests, is the formal subject matter of processes of transaction and exchange. If then the ultimate telos of the regime was to turn, by some bewitching magic, something that was not capable of being owned into something that might become so (through its removal), so also it seemed to imagine that this was also the case with respect to the category of ‘humanity’ that it ushered into existence. Humanity comes to be expressed, ultimately, in a metaphorically commodified form of life identified in and through its relationship to the resources over which it seeks to have control. To be human is to partake of the ‘interests’ in the resources of the moon and other planetary bodies in which all are deemed to share. Just as outer space was a site in which the distinction between peace and war became blurred so as to make warfare itself an illegible part of the regime, so also we might observe, in this context, another similar construction. Here, the regime takes on the character of that which it seeks to prevent or avoid – a system of resource extraction and of primitive accumulation, through which every other relationship humankind might have with the outer space environment, and, indeed, with itself, comes to be mediated. As the instrumental object of a regime of management that has the ‘use’ of nature as its operative configuration, outer space becomes enmeshed within the one-dimensional dynamics of the total administrative state that was central to its formation and, with it, the very meaning of what it is to be human

#### No value to life in a biopolitical framework—everyone is exposed to the possibility of being reduced to bare life in the name of instrumentality. Often on the lines of structural oppression turns the aff.

Agamben 1998 [Giorgio, professor of philosophy at university of Verona, Homo Sacer: Sovereign Power and Bare Life, pg. 139-140]

It is not our intention here to take a position on the difficult ethical problem of euthanasia, which still today, in certain coun­tries, occupies a substantial position in medical debates and pro­vokes disagreement. Nor are we concerned with the radicaliry with which Binding declares himself in favor of the general admissibility of euthanasia. More interesting for our inquiry is the fact that the sovereignty of the living man over his own life has its immediate counterpart in the determination of a threshold beyond which life ceases to have any juridical value and can, therefore, be killed without the commission of a homicide. The new juridical category of “life devoid of value” (or “life unworthy of being lived”) corre­sponds exactly—even if in an apparently different direction—to the bare life of homo sacer and can easily be extended beyond the limits imagined by Binding. It is as if every valorization and every “politicization” of life (which, after all, is implicit in the sovereignty of the individual over his own existence) necessarily implies a new decision concerning the threshold beyond which life ceases to be politically relevant, becomes only “sacred life,” and can as such be eliminated without punishment. Every society sets this limit; every society—even the most modern—decides who its “sacred men” will be. It is even pos­sible that this limit, on which the politicization and the *exceprio* of natural life in the juridical order of the state depends, has done nothing but extend itself in the history of the West and has now— in the new biopolitical horizon of states with national sovereignty—moved inside every human life and every citizen. Bare life is no longer confined to a particular place or a definite category. It now dwells in the biological body of every living being.

#### The role of the ballot becomes a negotiation of knowledge, a deciding of axes and boundaries. Evaluate our critique by its ability to reorient political perception and action.

Bleiker 2000 [Roland, coordinator of the Peace and Conflict Studies Program @ U of Queensland, Popular Dissent, Human Agency, and Global Politics]

Describing, explaining and prescribing may be less unproblematic processes of evaluation, but only at first sight. **If one abandons** the notion of **Truth,** the idea that an event can be apprehended as part of a natural order, authentically and scientifically, as something that exists independently of the meaning we have given it – if one abandons this separation of object and subject, then **the process of judging a** particular approach to describing and explaining an event **becomes a** **very muddled affair. There** is **no** longer an **objective measuring device that can set the standard to evaluate whether or not a particular insight into an event**, such as the collapse of the Berlin Wall, **is true or false**. The very nature of a past event becomes indeterminate insofar as its identification is dependent upon ever-changing forms of linguistic expressions that imbue the event with meaning.56 The inability to determine objective meanings is also the reason why various critical international relations scholars stress that there can be no ultimate way of assessing human agency. Roxanne Doty, for instance, believes that the agent–structure debate ‘encounters an aporia, i.e., a self-engendered paradox beyond which it cannot press’. This is to say that the debate is fundamentally undecidable, and that theorists who engage in it ‘can claim no scientific, objective grounds for determining whether the force of agency or that of structure is operative at any single instant’.57 Hollis and Smith pursue a similar line of argument. They emphasise that there are always two stories to tell – neither of which is likely ever to have the last word – an inside story and an outside story, one about agents and another about structures, one epistemological and the other ontological, one about understanding and one about explaining international relations.58 The value of an insight cannot be evaluated in relation to a set of objectively existing criteria. But this does not mean that all insights have the same value. Not every perception is equally perceptive. Not every thought is equally thoughtful. Not every action is equally justifiable. How**,** then, can one judge? **Determining the value** of a particular insight or action **is always a process of negotiating knowledge, of deciding where its rotating axes should be placed and how its outer boundaries should be drawn.** The actual act of **judging can** thus **be made in reference to the very process of negotiating knowledge**. The contribution of the present approach to understanding transversal dissent could, for instance, be evaluated by its ability to demonstrate that a rethinking of the agency problematique has revealed different insights into global politics. The key question then revolves around whether or not a particular international event, like the fall of the Berlin Wall, appears in a new light once it is being scrutinised by an approach that pays attention to factors that had hitherto been ignored. Expressed in other words, knowledge **about agency can be evaluated by its ability to orient and reorient our perceptions of events and the political actions that issue from them**. The lyrical world, once more, offers valuable insight. Rene´ Char: A poet must leave traces of his passage, not proofs. Only traces bring about dreams.

#### Alternative is “problematization.” I introduce bio-politics into the discussion and we understand the true diffuse nature of power which makes the statements made by the 1AC very problematic. The affirmative attempt to simplify it into basic terms of the mechanisms of power is inadequate. Problematization is key to activist movements, also challenges the effectiveness of non-reformist reforms

Terwiel, 2020 (Anna, Professor of political theory at Trinity College that focuses on carceral feminism and prison abolition, “Problematization as an Activist Practice” Theory and Event, Vol 23 NO.1 January 2020 68-70

Rather than seek solutions to practical policy questions, problematization aims to disrupt how problems and solutions alike are perceived. Such disruption, Foucault suggests, enables a radical rethinking of an issue and the creative development of new approaches. Problematization is usually understood as a style of philosophy that allows individuals to engage in ethical practices of self-transformation.[12](https://muse.jhu.edu/article/747095" \l "f12) Foucault's archaeologies and genealogies, for instance, can both be seen as forms of problematization: they use different methods to "clarify and intensify" the problems of our time and thereby make room for "experimentation on what we take to be the limits of our selves."[13](https://muse.jhu.edu/article/747095" \l "f13) However, scholars have not yet pursued Foucault's suggestion that problematization can also be [End Page 67] understood as an activist practice.[14](https://muse.jhu.edu/article/747095" \l "f14) Specifically, Foucault described the Prisons Information Group [Groupe d'Information sur les Prisons or GIP], an activist collective he co-founded in the early 1970s, as "an initiative of 'problematization.'"[15](https://muse.jhu.edu/article/747095" \l "f15) This article considers Foucault's late work alongside his writings for the GIP to theorize problematization as a collaborative activist practice. Problematization is activist because it seeks to enable social change, and collaborative because theorists are seen as "relays" in problematization rather than its originators. As I describe in greater detail below, the GIP formed in a moment of intense political contestation of the prison and tried to help translate prisoners' grievances, protests, and uprisings into a more generalized and widely shared "active intolerance" of the prison and punishment. Bringing together insights from the GIP's activism and Foucault's philosophical writings, I theorize problematization as a way of responding to protests that seeks to affirm and amplify their disruptive power by unsettling the ways of thinking used to adjudicate them. This interpretation of problematization, I will suggest, has the advantage of more clearly connecting the work of radical thinking with practical efforts at change than Foucault himself was able or willing to. Moreover, it expands the relevance of Foucault's work to prison politics beyond the tendency to use either specific Foucauldian concepts (such as biopower or neoliberalism) or scholarly methods (such as genealogy) to analyze punitive practices.[16](https://muse.jhu.edu/article/747095" \l "f16) And in the context of contemporary debates about mass incarceration, a problematization approach can help energize critiques of the prison while resisting their limitation to demands for better prisons.[17](https://muse.jhu.edu/article/747095" \l "f17) More generally, this essay proposes to consider Foucauldian problematization alongside other approaches that challenge justification and problem-solving as the primary contributions of political theory. Akin to Judith Butler's critical analysis of the "frames" that justify state violence and reproduce unequal vulnerability to death across the globe, problematization urges theorists to consider how dominant ways of thinking enable some practices and lives while obscuring or eliminating others.[18](https://muse.jhu.edu/article/747095" \l "f18) Butler's work further highlights the importance of problematizing the norms of gender, sexuality, and race that enable state violence and the unequal distribution of precariousness. Such problematization takes us beyond Foucault's own analyses of punishment to intersectional feminist analysis,[19](https://muse.jhu.edu/article/747095" \l "f19) critical trans politics,[20](https://muse.jhu.edu/article/747095" \l "f20) and other scholarly and activist efforts to "trouble the system we have."

Foucault depicts the work of diagnosing and defamiliarizing our ways of thinking—problematization—as a crucial part of collective efforts to change practices (such as punishment) and institutions (such as the prison). Intellectuals, he suggests, should work alongside "very different people such as magistrates, penal law theorists, penitentiary practitioners, lawyers, social workers, and persons who have experienced prison" in a shared "endeavor of reflection and thought."29 While these categories are by no means mutually exclusive—just think of the work of (formerly) incarcerated intellectuals such as George Jackson, Angela Davis, and Assata Shakur—I will focus, in this essay, on how theorists on the outside can contribute to prison activism.30 Yet problematization is not typically seen as a collaborative activist practice. Rather, scholars tend to interpret it more narrowly as a form of philosophy that can inspire ethical self-transformation. In the most in-depth analysis to date, Colin Koopman, for instance, depicts problematization as a type of genealogy that, by tracing the emergence of our ways of thinking, provides the materials needed "to constitute ourselves otherwise" or "rework[…] ourselves

# Case

#### First, don’t allow AC offense weighing:

#### Your aff analysis starts from the wrong point, that’s an epistemological indict, all your offense just feeds back into bio politics.

#### Reject their method:

#### Even if the state can be good in some instances, the links isolate reasons why the aff’s use of the state specifically is bad. Prefer the links on specificity

#### Working within the state is always a solvency deficit to the perm – this allows the state to control what it wants us to understand and learn and means we’ll never learn how to resist and create radical change

#### The role of the ballot precludes your standard for a few reasons.

#### It question our role in debate, the consequences of the plan don’t matter if our orientation in debate is flawed.

#### Is fait is illusory, giving the aff a ballot does nothing outside of the round, the ROB function to alter our perception of thing like political engagement, we need to stop creating mindless drones of the state from debate.

#### Claim about fairness don’t matter a) they don’t spill up b) debate is innately an unfair playing field c) voting on fairness is just the sovereign exercising control over what is fair and what is not, link back into our critique.

#### My role of the ballot is a question of ontology and epistemology – your framework presupposes both epistemology and ontology in the process of making its claims about life. If I win that even ONE of those presuppositions is bad, that’s enough to consider the ROB first.

#### Util

#### We are pre req ie need freedom to try to PP

#### [1] Countless OST violations now and no impact – its unenforceable and filled with loopholes

Philip Yiannopoulos 18. "Inside the epic debate on rethinking our 50-year-old Outer Space Treaty." Fast Company. 9-24-2018. https://www.fastcompany.com/90240304/inside-the-epic-debate-on-rethinking-our-50-year-old-outer-space-treaty

That’s a lot of activity, fueling intense discussions and fiery debates about the commercialization and militarization of space, the proper role of humans in our galaxy, and the future of humanity. Yet it’s all guided by an outdated set of rules that were established a few years before Neil Armstrong took that first fateful step on the moon. The 1967 Outer Space Treaty was shaped by paranoia over the space race between the Soviets and the Americans, and even the brightest minds of the time couldn’t anticipate the complexities of now and tomorrow. In a long-overdue effort to prepare for that future, on Tuesday the UN will use the 50th anniversary of a Conference on the Exploration and Peaceful Uses of Outer Space to “renew and strengthen its mandate” and to call attention to developing pertinent laws. As it stands, the current treaty bans the placement of WMDs in space, forbids any military action past the atmosphere, and declares the exploration of space for the benefit of all countries. But the 50-year-old treaty definitely needs some updating. While speaking as a U.S. Representative from Oklahoma, Jim Bridenstine said the treaty was mired in Cold War thought, and “now, almost every nation on Earth has some sort of presence in space, and we have to be concerned with threats like jamming, dazzling, spoofing, and hacking satellite constellations.” (Bridenstine was eventually tapped by Trump to head NASA, despite his lack of scientific experience.) AS BELOW, SO ABOVE So what kind of challenges should we expect going forward? Well, as below, so above. A look at the UN’s Convention on the Law of the Sea illustrates some current and potential problems. This treaty eventually established seabeds and ocean floor “beyond the limits of national jurisdiction.” The Law of the Sea proclaims such international spaces as the Common Heritage of Mankind, a phrase now applied to outer space. Unfortunately, humanistic rhetoric is no match for strategic military advantage. And worse, the UN has a track record of being toothless. Recently China started building islands near the Philippines, a clear violation of international law. The nation then flat-out lied about its intention to militarize these spaces. China simply did not attend its hearing at the International Court of Justice. Similar problems exist in today’s space race as different countries militarize in orbit. The EU’s Galileo satellite “proposes more civil-military synergies in European space systems,” two-thirds of Russia’s satellite force is military, and, of course, plans for the U.S.’s Space Force are proceeding apace. Legally, these actions fall within the Outer Space Treaty. Founder of the Global Space Law Center, Mark Sundahl, explains, “You can’t stop countries putting things into space for the purposes of self-defense.” Yet there are some lines that shouldn’t be crossed, he argues. In 2007 China destroyed one of its own satellites. Technically the event did not break the peaceful use clause, but arms controls experts considered the explosion a flex of military muscle. “I mean that kind of behavior can’t be tolerated,” Sundahl says. “But no one spoke up against it as being a violation of the law. And as far as international community says right now, those kinds of action are legal . . . which is ridiculous.” The Chinese actions prompted American response, and added to the biggest problem facing the developing space industry today: orbital junk. Raising awareness about the debris cluttering space takes up a lot of time at the Secure World Foundation, as well as its mission to promote “cooperative sustainability” in space. As project manager Josh Wolny says, its mission is to “help everyone realize they are invested in space and they have something to lose if the environment is damaged.” The foundation generates research and works with the UN as well as private companies to prepare for a successful space industry. Wolny refers to something called the Kessler Syndrome, an increasingly likely scenario in which space junk crashes into a satellite, and thus produces more debris to become part of an ever-growing spiral that inevitably makes it almost impossible to safely launch into space or satellite orbit. And given our current lack of action when it comes to the Texas-sized garbage patch of plastic floating in the Pacific, orbital cleanliness may be a pipe dream. You may assume it’s government’s job to protect the cosmos, but it’s not that simple. First of all, there are differing opinions about where in space all those hunks of metal are exactly located. And with tech tycoons like Elon Musk and Jeff Bezos funding development, they face little legal regulation. After orbit, companies will be within the jurisdiction of the country from which they chose to launch, similar to the high seas’ “flag of convenience.” But some are negotiating claims in advance per astronaut or even per specific mission, according to a recent article in The Atlantic. Things will get complicated. A COSMOS OF COMPLICATIONS At the Global Space Law Center, Mark Sundahl explains the difficulties of the developing space law field, especially when it comes to commercialization. “I’m trying to strike the right balance. We’re being prospective where it can help the industry,” he says. Before businesses invest in space, they need protection. “They’re actually begging for regulation,” he says, “to give investors peace of mind.” However, he also points out complications in things like safety regulations for tourist flights “because we don’t know what to regulate. We don’t know what a safe design is really like.” Similar questions exist for space mining, on-orbit refueling, servicing of satellites, private orbital space stations, or even the first hotel on the moon (which, as it stands, is totally illegal). In the United States, space diplomacy is in its nascent stages. Andrea Thompson, the U.S. Undersecretary for Arms Control and International Security, said discussions at the State Department are just getting under way to address the major questions, such as: “What is a responsible nation state’s behavior in space?” And while the U.S. Congress has struggled with the urgency of reforming space law, President Trump threw a wrench in the works by announcing the Space Force, which came as a surprise to many at NASA and in the space community after he signed a bill to reduce satellite clutter.

#### less debris and existing guidelines solve

Lewis 15 (Hugh, Senior Lecturer in Aerospace Engineering at the University of Southampton, “Space debris, Kessler Syndrome, and the unreasonable expectation of certainty.” Room, <https://room.eu.com/article/Space_debris_Kessler_Syndrome_and_the_unreasonable_expectation_of_certainty>, Accessed 8/10/19, JMoore)

There is now widespread awareness of the space debris problem amongst policymakers, scientists, engineers and the public. Thanks to pivotal work by J.C. Liou and Nicholas Johnson in 2006 we now understand that the continued growth of the debris population is likely in the future even if all launch activity is halted. The reason for this sustained growth, and for the concern of many satellite operators who are forced to act to protect their assets, are collisions that are expected to occur between objects – satellites and rocket stages – already in orbit. In spite of several commentators warning that these collisions are just the start of a collision cascade that will render access to low Earth orbit all but impossible – a process commonly referred to as the ‘Kessler Syndrome’ after the debris scientist Donald Kessler – the reality is not likely to be on the scale of these predictions or the events depicted in the film Gravity. Indeed, results presented by the Inter-Agency Space Debris Coordination Committee (IADC) at the Sixth European Conference on Space Debris show an expected increase in the debris population of only 30% after 200 years with continued launch activity. Collisions are still predicted to occur, but this is far from the catastrophic scenario feared by some. Constraining the population increase to a modest level can be achieved, the IADC suggested, through widespread and good compliance with existing space debris mitigation guidelines, especially those relating to passivation (whereby all sources of stored energy on a satellite are depleted at the end of its mission) and post-mission disposal, such as de-orbiting the satellite or re-orbiting it to a graveyard orbit. Nevertheless, the anticipated growth of the debris population in spite of these robust efforts merits the investigation of additional measures to address the debris threat, according to the IADC.

#### Global ADR development already exists – solves.

Zachary Keck, Wohlstetter Public Affairs Fellow at the Nonproliferation Policy Education Center, 6-17-2018, "Space Is Truly the Final Frontier (For the Next Great War)," National Interest, https://nationalinterest.org/blog/the-buzz/space-truly-the-final-frontier-the-next-great-war-26284

The first type of dual-use spacecraft—called active debris removal (ADR)—are designed to deal with the rapidly growing problem of space debris. One preliminary ADR example came from China in June 2016 when it launched the "Aolong-1" spacecraft, which was a demonstrator device. These ADR spacecraft—which are also being developed by the United States, European Union, and Russia— can retrieve debris floating in space. Then, the ADR spacecraft bring the debris down to re-enter the atmosphere, destroying it by the intense frictional heat. Alternatively, they can also instead place the debris in graveyard orbits to reduce the probability of colliding with operational satellites.

ADR spacecraft are unavoidable given the growing nature of the space debris problem. Previous estimates have suggested that starting in 2020 the world would need to remove an average of five massive objects (such as decommissioned satellites and derelict rockets) from low earth orbit (LEO) each year to deal with the problem. Others have estimated that the number is closer to ten that will need removal. However, as Chow points out, these estimates fail to consider the massive expansion in the number of LEO satellites entering space. As of August 31, 2017, only 1,071 LEO satellites were orbiting the earth. Over the next decade, however, between 14,000 and 16,000 additional LEOs are expected to be launched. This makes the space debris problem more difficult, and debris removal spacecraft that much more important.

The problem is that the same spacecraft that can remove debris can also be used as “space stalkers.” Space stalkers, as Chow previously described them, "could be placed on orbit in peacetime and maneuvered to tailgate U.S. satellites during a crisis. At a moment's notice, they could simultaneously attack multiple critical satellites from such close proximity that the United States would not have time to prevent damage." Since ADR spacecraft are designed to get close to and remove debris, they necessarily have the capability to get close to and snatch essential satellites that U.S. military relies on.

Additionally, ADR spacecraft are not the only dual-use problem. Many of the same countries developing ADR capabilities are also building maintenance spacecraft. These spacecraft—called on-orbit servicing (OOS)—also maneuver themselves to be in physical contact with satellites to perform any number of maintenance tasks. These tasks include, "high-resolution inspection; correction of some types of mechanical anomalies, such as solar array and antenna deployment malfunctions; relocation and other orbital maneuvers; installation of attachable payloads to enable upgrades or new capabilities; and refueling to extend the service life of satellites."

Once again, the issue is that these OOS spacecraft can be quickly repurposed to take out critical satellites during a crisis or conflict. In fact, these OOS spacecraft are even better space stalkers than ADR ones because they have more advanced rendezvous and robotic capabilities.

This is not some distant problem. Chow notes that the first ADR and OOS spacecraft are likely to become operational sometime in the early part of the next decade. “In effect,” he writes, “weaponization of space will happen by default in the early 2020s and beyond and will be unavoidable and irreversible.” It will only grow worse with time as more countries launch ADR and OOS spacecraft and their capabilities for rendezvous and proximity operations improve.