

Trad 1NC

Gene Cernan, a former American astronaut and the eleventh person to walk on the moon, once stated, “Curiosity is the essence of our existence.” It is because I agree with former astronaut Gene Cernan, in the position that we are meant to innovate to continue our existence, that I feel compelled to **negate** today’s resolution:

Resolved: The appropriation of outer space by private entities is unjust.

For clarification of today’s round, I offer the following counter definitions:

According to [philosopher and absolutist Samuel Clarke](#), **outer space is a giant container, containing all the things in the universe**: stars, planets, us. Space allows us to make sense of how things move from one place to another, of how our entire material universe could move through space.

According to the [Cambridge Dictionary](#), to be **unjust is to be morally wrong or unfair**.

FW

The highest value within today’s round **is life, defined as a system that is composed of bounded micro-environments** in thermodynamic equilibrium with their surroundings; capable of transforming energy to maintain their low-entropy states; and able to replicate structurally distinct copies of themselves from an instructional code perpetuated indefinitely through time despite the demise of the individual carrier through which it is transmitted according to the [Stanford Encyclopedia of Philosophy](#). **Life is most important in today’s round** because we must uphold the most life in our actions and is a key consideration of appropriating outer space.

The best criterion for evaluating this resolution is **act utilitarianism, defined as initiating an action that will create the greatest** net utility, or **good**, according to the [Internet Encyclopedia of Philosophy](#).

It best achieves my value of life because act utilitarianism measures life by upholding the most life. So, through act utilitarianism, an action will uphold the most life by promoting the most good. In terms of the resolution, the appropriation of space by private entities creates the most good, or benefits the most life.

In **negating** the resolution, I offer the following contentions:

Contention I: Space development exudes positive impacts.

1] Technological advancements are a result of space appropriation and are made more possible with private entities.

Eren **Ozmen**, chairman and president of Sierra Nevada Corporation (SNC), a space technology company, March 30, **2021**

"The reason we can't fully explore space is fixable. Here's how," CNN Business,

<https://www.cnn.com/2021/03/30/perspectives/space-exploration-biden-administration/index.html> (accessed 12/12/21) // crosini

But **space exploration offers enormous benefits [such as]** for all of us. There's a long list of innovations that have emerged as a result of space research that have already spawned entire industries: **the Global Positioning System, phone cameras, portable computers, water-purification systems, cochlear implants, artificial limbs, wireless headphones, CAT scans, LASIK and even the dustbuster handheld vacuum.** And many of us are able to live and thrive partly because **satellites help farmers assess climate and growing conditions and decide which areas are best for cultivation, while also alerting them to unfavorable weather conditions or predictions of longer-term drought.** Looking ahead, space commercialization — asteroid mining, manufacturing and scientific research — will require vast amounts of capital and the hiring of skilled labor, creating both wealth and jobs.

2] Privatization massively increases economic growth and business development and accelerates space developments.

Khushi **Kapoor** and Keshav **Todi**, finance intern at Satin Creditcare Network Limited and expert in economics for capital markets, behavioral finance, and business skills, March 20, **2021**

"The Privatisation of Space Exploration," FICS, <https://ficsrcc.com/the-privatisation-of-space-exploration/> (accessed 12/12/21) // crosini

Privatization of space exploration has had many benefits for the space industry in the 21st century. **Private companies have a greater degree of autonomy in making decisions, which enables them to take up new projects while taxpayer-funded institutions are accountable to the Government and hence, have to often limit themselves.** Moreover, **there is quick decision making in private companies while the same process in a public enterprise would have to pass through a number of stages. This advantage has allowed companies like SpaceX, Blue Origin, etc. to cut their costs substantially** and perform operations like launching a rocket to ISS at merely \$57 million per seat as compared to \$80 million per seat if aboard a Russian shuttle, and \$450 million each mission before NASA ended its space shuttle program. Moreover, **making reusable landing rocket launchers, improvements in assembly lines and other such operations further ensure lower costs. Due to the well-known success of the top few private space companies, many new small companies such as Firefly systems and Vector launch have been able to raise substantial private capital as well. The growth in the space industry also provides employment to millions all over the world, and the rise in the number of private space companies promotes competition amongst them and encourages constant improvements and advancements.** Lastly, the publicity of their operations, like live streaming launches, has sparked widespread interest in space exploration among the general public.

Impacts/Solvency

Value] With technological enhancements as a result of space appropriation, we can grow as a human race and sustain life. Additionally, with a strong economy and more efficient space

development, we are able to sustain ourselves on Earth and be prepared for circumstances in which we need to be prepared to leave Earth.

Criterion] A flourishing economy, constant space developments, and ever-developing technology will help benefit the majority. With a strong economy, the majority of people will have opportunities of employment and can access the funds they need. Additionally, efficient development of space prepares us for unpredictable circumstances in the future that warrant humanity's colonization of Earth.

Resolution] With a vast quantity of benefits, the appropriation of outer space by private entities must be just because of what it produces and how many have access to its produce.

Contention II: Public-private partnerships are significantly more rewarding than independent entities.

1] Public-Private Partnerships are beneficial.

Smith, 21 (Fisher Smith, NSS Legal Fellow, second year law student at the University of Mississippi, member of the Ole Miss Trial Advocacy Board, 3-31-2021, accessed on 1-5-2022, National Space Society - Working to Create a Spacefaring Civilization, "Public-Private Partnerships: The Way to Space - National Space Society", <https://space.nss.org/public-private-partnerships-the-way-to-space/>) // crosini

In recent years, private companies have begun to push the boundaries of outer space, making it more affordable to launch rockets and developing new technologies that have revolutionized the industry. SpaceX, Blue Origin, Nanoracks, Rocket Lab, and Made in Space (now Redwire), among others, have changed the space industry dramatically. As recently as the early 2000's, the only way to launch payloads into space was to go through governmental entities such as NASA, European Space Agency, Roscosmos and the China National Space Administration (CNSA). Today, the U.S. has been leading the way in purchasing launch services from private companies, and the private companies themselves work with other{s} companies and investors to launch non-government payloads. However, while these companies have accomplished much, there is still a need for an organized, governmental role in space development. Government involvement is necessary to ensure[s] that the public maintains access to space and to advance the frontier of development beyond Earth.

For instance, consider NASA and the American government. NASA's ongoing scientific efforts are characterized by four key strategic goals: 1) expanding knowledge of our human species, 2) creating "sustainable long-term exploration and utilization" of outer space for the whole species, 3) addressing national challenges and aiding in economic development, and 4) continuing to optimize and develop their capabilities and operations within outer space. NASA's ongoing commitments are to develop outer space and technology for the United States and for humanity as a whole. Their missions of exploration, scientific discovery and technological development have continued to advance humanity. The fundamental structure of democratic governments such as those in the U.S. allow regular people to influence and participate in space development policy. People can vote for and petition their elected representatives to promote certain policies for the use of outer space, or join non-profits such as the National Space Society (NSS) to represent their views. This allows anyone to have a say in our development of outer space.

While private companies are pushing the boundaries of outer space, NASA and the US government have the ability to create policies that encourage more rapid and beneficial development in space. The National Space Society (NSS) advocates that the government promote policies for infrastructure development and reusability for outer space expansion. The successful model of public-private partnerships that has been used to transport both cargo and crew to the International

Space station via the commercial purchase of launch services should be extended throughout cis-lunar space. **Further, through NASA, NSS recommends that the government continue to promote international cooperation. The international community has cooperated in the past, particularly with the International Space Station. By continuing this partnership, multiple States can contribute to outer space exploration and development, and private organizations can continue provide vital services at lower cost, allowing government funds to accomplish more in space.** While past developments in outer space have been led by governments and governmental space agencies, that is no longer true. Private organizations have reignited space exploration and provided a way for humanity to continue to expand and revolutionize technology needed to expand beyond Earth, without many of the hurdles, including cost and regulations, that sometimes hamper government advances. But, the path to the stars is not paved by one or the other. Instead, cooperation, between States, governmental agencies, and private companies, will ensure that we continue to push our boundaries into space.

A detailed look at NSS recommendations for NASA and governmental actions to propel humanity into the stars can be found in the NSS Position Paper on U.S. Development and Settlement of the Moon and Near Earth Asteroids.

2] Private entities offer their own benefits.

Brenner, 18 (Laurie Brenner, freelance writer and editor, science fiction novelist, 3-20-2018, accessed on 1-7-2022, Sciencing, "Why Are Private Companies in Space?", <https://sciencing.com/how-the-man-who-found-the-titanic-plans-to-track-amelia-earhart-13721194.html>) // crosini

The biggest benefit to privatizing space starts with its cost-effectiveness. Commercial launches significantly affect the cost for NASA to send satellites into space by dropping the per-launch cost from \$4 billion to less than \$50 million, allowing NASA to use its money elsewhere. Privatization also spurs innovation when companies compete to come up with new technologies. The drawbacks include promises by private companies that result in failure. Not everything designed for space works, and many private-company rockets blow up after launch or while on the pad. Profit, not research, drives a private company's bottom line, leaving several space exploration projects on the table forever that might benefit humankind.

Impacts/Solvency

Value] With public and private entities working with one another, they can more quickly accomplish the shared goal of being able to colonize space to protect life.

Criterion] Due to upholding life, we can protect, defend, and support the majority. Ideally, everyone will have access to space and will be saved in specific circumstances. The idea of a majority, being hypothetical, does allow for all to be able to access space as a result of PPP. However, realistically, no matter what, it is unlikely that everyone can be saved from issues on Earth, such as global warming. So, it is important to protect the majority of humanity.

Resolution] PPP benefits the majority of lives, which contrasts the idea of being unjust entirely.

Space Colonization Card

1] Humanity faces extinction within the next 100 years; only space colonization can solve it.

Arjun **Kharpal**, Kharpal is CNBC's senior technology correspondent, May 05 **2017**, "Stephen Hawking says humans must colonize another planet in 100 years or face extinction",

<https://www.cnn.com/2017/05/05/stephen-hawking-human-extinction-colonize-planet.html> // crosini

Humans need to colonize another planet within 100 years or **face the threat of extinction**, high-profile physicist **Stephen Hawking has warned**. In a new BBC documentary called "Stephen Hawking: Expedition New Earth" set to air later this year, the professor will "present his predictions that the human race only has 100 years before we need to colonize another planet," a press release from earlier this week said. **"With climate change, overdue asteroid strikes, epidemics and population growth, our own planet is increasingly precarious."** Previously, Hawking theorized that humanity probably has around 1,000 years left before it becomes extinct. His timeline appears now to have shortened. The famous physicist has issued a number of warnings about the future over the past few years. At the start of 2016, Hawking warned about the dangers from nuclear war, global warming, genetically-engineered viruses and artificial intelligence (AI). **"Although the chance of a disaster to planet Earth in a given year may be quite low, it adds up over time, and becomes a near certainty** in the next thousand or ten thousand years," Hawking told the BBC in an interview at the time.

Impacts/Solvency

Value] Everything described in this case, from quickly-developing technologies to the cooperation of public and private entities, can lead to space colonization to uphold the most life.

Criterion] As a result of upholding the most life, we uphold the majority. The majority does not specify any races, ethnicities, or sexualities. Rather, a majority can be used to describe the largest percentage of humanity. The idea of humanity does not discriminate against different races, ethnicities, or sexualities.

Resolution] If we uphold the most life, then space appropriation of private entities is just.

I have shown you that **space development exudes positive impacts, Public-private partnerships are significantly more rewarding than independent entities, and space colonization only can solve human extinction.** For these reasons, we can clearly conclude that life should be upheld and we must negate the resolution, Resolved: The appropriation of outer space by private entities is unjust.