

## Theme A: Global Commons and Stewardship of Shared Resources

### Space for All? The Institutional Vacuum Behind the Thriving Space Exploration Industry That Few Are Talking About

From global navigation and weather forecasting to military reconnaissance, outer space has long impacted how we live our lives on Earth. As of May 2025, Space Exploration Technologies Corp. (SpaceX)'s Starlink already has about 7 500 satellites orbiting the earth—more than [60 percent](#) of all active satellites. That has allowed people in the most remote places to have access to the world, but it has also evoked increasing anxiety about crowded orbits. At the same time, new missions to the Moon and Mars have sparked a [modern space race](#) between countries.

But after all the interesting development, there's a problem few are talking about: our regulations for managing space haven't kept up with the speed of technological development. There's a growing difference between space being treated as a shared global resource and the reality of growing commercial and political competition, where the current system for space governance is antiquated and too weak to handle today's complicated space activities. On one hand, space gives huge economic potential. On the other, the legal system that's meant to supervise it is vague and hard to enforce. The space industry is booming, but the lack of strong regulations might become a huge danger for the world.

There was some reason why this issue started to [arise again](#) from the Cold War. In the 50s and 60s, the outside area was only about science. Rather, that element was part of a worldwide military conflict. When the US began to attack the USSR in 1957 and began a race that lasted for several decades, the Soviet Union began the Sputnik program in that country.

As time went on, people began to regard space as more than a battlefield. It became a place for [business](#) and invention. New sectors including satellite navigation and remote communications developed fast. But although the Cold War ended, its effect on space policy didn't disappear. Today's foreign collaborations like those on the International Space Station still reflect the old rivalries. At the same time, more countries and corporations are rushing to claim orbits and resources. This makes it obvious that the protocol produced in the 20th century are not enough for today's problems. One of the clearest signs of challenges is the scramble for space in Low Earth Orbit (LEO), which is between 400 and 1 200 kilometers above the Earth. LEO is attractive because it's cheap to reach and great for fast communication. In 2010, there were just under 1 000 satellites in orbit, mostly from governments. By 2020, that number had jumped to over 3 300, mostly because private companies had entered the game. The pace has only sped up. By 2025, there are more than 14 000 satellites in orbit, with about 10 400 [still working](#). Most of them are in LEO. Since there's no global system for managing how companies or countries claim these spots, launches happen on a first-come, first-served basis. Those who can launch quickly take the best orbits, while slower players are left behind.

The International Telecommunication Union is supposed to help manage frequencies and orbits, but its power is limited. It depends on countries to report honestly and doesn't have real authority to enforce rules. This means companies can file for slots they don't use, crowd popular areas, or duplicate efforts. As a result, access to space is becoming unfair and unsafe, and the risk of conflict is rising.

Private enterprises are more complicated as well. The SpaceX's Starlink system provided internet

assistance to Ukraine forces during the Russia-Ukraine conflict. This demonstrated that as a business service developed into a means of international conflict, it began to function as a tool for business services. Thus, the following are some of the most important questions: Who controls wars, if private venues might create them? The lines between business and politics become hazy when businesses offer services that have an impact on international security.

Even international cooperation has its limits. The International Space Station is often seen as a symbol of collaboration and peace in space, but China has always been exclusive to it. A 2011 U.S. law, the Wolf Amendment, [blocks](#) NASA from working with China, further dividing global efforts. In response, China built its own space station, called Tiangong, and has made important progress in exploring the Moon and Mars. This states the lack of inclusiveness in today's space activities.

Most of the current rules are based on Cold War era treaties, especially the 1967 [Outer Space Treaty](#). While the treaty was important when it was signed, it no longer meets the needs of the modern space age. It lacks of effective ways to enforce rules. The general idea of space should be used "for the benefit of all mankind," is presented without detailed explanation. The unexpected rise of private companies and businesses makes the protocol fails to protect the space environment or hold anyone accountable for causing damage. These gaps create legal confusion and could lead to disputes.

For suggestions, some specialists point toward examining different parts of the world that were similar to that of Antarctica. The Arctic Treaty System encourages the use of science and peaceful communication, which is why the organization facilitates collaboration between people and the environment, as well as for the exchange of information between parties and people to decide on the same.

Eight major guidelines were identified by the laureate of the Nobel Prize by Eli Ostrom who were able to handle the same kinds of information. Many of these are currently lacking in space policy. For example, "the outer space treaty is obviously the only thing that can be done to define who is permitted to use space, as well as how they are supervised by regulations and how time is changed. The Antarctic model, which is the system of rules established by ordinary meetings, might be helpful tool to address these issues.

As more countries and companies get involved in space, the gap between fast-moving technology and slow-moving policy keeps getting wider. If nothing changes, this imbalance could lead to conflict, economic loss, and environmental damage in space. It takes too much space to be kept in a state of uncontrollably. It has an impact on scientific research, economic growth, and global security. The function of some strong nations is to update space governance, which is something that every country should be concerned about. Protecting the space future means taking action to strengthen the rules of everyone, which are already in place.