

Darrell M. West Q&A

CLAIMING THE COSMOS: WHO OWNS THE FINAL FRONTIER?

In CLAIMING THE COSMOS, you argue that the technology to travel to space—and profit from extraterrestrial resources—is surging far ahead of any regulatory framework to govern it. What's the risk of letting that gap widen?

Without proper regulation, commercial enterprises in space tourism or mining could operate without any checks on their activity. There needs to be oversight to make sure businesses respect scientific objectives, promote human safety, pursue sustainable practices, and maintain competitive marketplaces. Right now, there are a few large companies that dominate space activities, and agencies need to make sure they operate safely and engage in fair business practices.

Private companies led by figures like Elon Musk and Jeff Bezos are now driving corporate exploration alongside nation-states. How do their motives diverge from governments', and what does that mean for how space is explored and developed for human use?

Billionaires deserve credit for investing their own financial resources in space enterprises. Their firms have driven considerable innovation and developed products such as reusable rockets and refueling in space that have reduced launch costs and expanded the exploration opportunities. But Musk and Bezos lead profit-driven companies and their firms, as well as many others, sometimes emphasize speed and efficiency at the cost of humanist values. Public-private partnerships need to prioritize these, make sure the emerging space economy grows in fair and safe ways, and that the benefits of space enterprise are shared broadly.

What's the urgency? What's happening right now that makes establishing a legal framework for space essential in a matter of years, not decades?

Many of the rules governing the space economy date back to 1967 when the Outer Space Treaty was ratified by a number of countries. But there aren't very many laws or policies in place to govern private sector behavior. At the time when that global agreement was adopted, we didn't envision the dramatic growth of space launches and satellites or the developments in space tourism, mining, communications, and defense that have emerged now. They necessitate a robust framework to guide such rapid development.

You've called for a "space bill of rights." What would it contain, who would need to sign it to make it meaningful, and how would it be enforced?

It would need to specify what companies can and cannot do in outer space. Soon we will have space bases and camps on places other than Earth, and humans will start to become an interplanetary species. Workers and settlers there need safeguards to make sure their safety is protected, their health is a top priority, and that sustainable practices protect the pristine environments of the Moon and Mars. Among the principles that need to be encapsulated in writing should be values such as self-determination, human safety, liberty, sustainability, transparency, and fairness. We need a new U.S. Department of Space Commerce that oversees space activities and a Global Space Development Bank that guides future infrastructure development. This bill of rights should be signed by leading public and private sector organizations, and enforced through regulatory actions and international agreements.

With the U.S. and China in open rivalry, Russia continuing its war on Ukraine, and global alliances under strain, geopolitical tensions are already high. How do we keep the new space race from becoming the next arena for conflict?

The new space race is already becoming an arena for international competition and conflict. Countries are developing killer satellites that can take out the communications equipment of their adversaries. The world is bifurcating between East and West. The United States has a global network called the Artemis Accords consisting of its allies while China and Russia have developed their own alliance of friendly nations. As China and the U.S. compete for valuable real estate on the Moon's South Pole where there is both ice and sunlight needed for human habitation, the risk is that Earth-based conflict will migrate into space and poison international cooperation. Countries could declare sovereign rights or base safety zones that limit the ability of nations to work together. Either development would be costly and possibly even dangerous for future exploration.

Space exploration carries echoes of colonialism—global competition for power and resource extraction being the most obvious. How do we keep from repeating those patterns?

The history of exploration on Planet Earth is shot through with tragedy; European colonial powers dominated peoples and terrains in America, Africa, and Asia and exploited local populations and resources for their own benefit. As we move towards economic activities on the Moon and Mars, we need to make sure the global competition for power and resources does not replicate those unjust patterns and harm local environments. Furthermore, we must make sure scientific exploration and discovery retain priority over economic development, and the ills profit-seeking often brings.

What do you think space will look like a hundred years from now? And what decisions can we anticipate in the next decade that will determine whether we go in the right or wrong direction?

People a century from now will be shocked how quickly the space economy has grown. As of 2025, the global space economy has risen to \$613 billion. There are nearly 2,000 space companies and around 400,000 people who work within that sector. The area is growing around eight percent a year, and the space economy is where the digital economy was 25 years ago. In the near-future, space enterprise will grow rapidly and become a dominant sector in the same way the digital economy has flourished. There will be very large companies that dominate space tourism, mining, defense, and communications, and we need to make sure the sector develops in a responsible manner. Both government agencies and civil society should track the space economy and report to the public how it is growing, what is going well, and what needs remediation. The general public needs to be part of the debate over ways to oversee the growing space economy.