

DECEMBER 10, 2022

# THE JOURNEY, NOT THE DESTINATION MATTERS

## The Geopolitics of Internet Routes

Internet Access, LEO Broadband Satellite Services and international conflict –

advancing the multistakeholder model to keep routes open, stable and secure

Joanna Kulesza  
University of Lodz / Lodz Cyber Hub

Dec. 2022

CAMPUS CONDORCET - CENTRE DES COLLOQUES, 1 PLACE DU FRONT POPULAIRE  
ACCES - METRO FRONT POPULAIRE (LIGNE 12) ET BUS DES GARDINOUX (LIGNES 239 OU 139)  
INSCRIPTIONS SUR GEOEDE.SCIENCE/EVENTS

This research is a product of a project funded by the Internet Society Foundation  
"Decolonizing the Internet: Global Governance of LEO Satellite Broadband".

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Technology  
2 minute read February 27, 2022 1:17 AM GMT+1 · Last Updated 9 months ago

### Musk says Starlink active in Ukraine as Russian invasion disrupts internet

By Hyunjoon Jin

politics The Biden Presidency Facts First 2022 Midterms

## Exclusive: Musk's SpaceX says it can no longer pay for critical satellite services in Ukraine, asks Pentagon to pick up the tab

By Alex Marquardt, CNN  
Updated 6:38 PM EDT, Fri October 14, 2022

politics The Biden Presidency Facts First 2022 Midterms

## Ukraine suffered a comms outage when 1,300 SpaceX satellite units went offline over funding issues

SpaceX owner and Tesla CEO Elon Musk speaks during a conversation with hosts at the E3 gaming convention in Los Angeles, California, U.S., June 13, 2019. REUTERS/Chris Wedel

By Alex Marquardt and Sean Lyngaas, CNN  
Updated 3:44 AM EST, Mon November 7, 2022

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### Why Elon Musk's Starlink will not affect protests in Iran

*So far the only effect of Starlink's 'activation' has been indirectly helping spread malware on Iranian devices.*




Thousands of pro-government Iranians take part in a rally against recent anti-government protests in Tehran on Sunday [Abedin Taherkenari/CPA-EPA]

By Maziar Motamedi  
25 Sep 2022

SPOTLIGHT STORY THE MOROCCO-FRANCE WORLD CUP GAME IS ABOUT MORE THAN SOCCER

WORLD + IRAN

### Receivers for Elon Musk's Starlink Internet Being Smuggled Into Iran



Starlink, a SpaceX product, seen in a remote part of the Rio Grande Valley in Texas in September. Reginald Matheson /iStockphoto.com

BY KAREL VICE | OCTOBER 24, 2022 11:00 AM EDT <https://time.com/6223999/starlink-iran-elon-musk/>

Starlink receivers have begun to arrive inside Iran, smuggled into the country in hopes of providing a backup internet should the Iranian regime shut down the country's existing system. Starlink, operated by Elon Musk's SpaceX, is a global network of low-orbit satellites that bypasses the terrestrial internet, and helped restore connectivity in Ukraine after the

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BUSINESS NOV 3, 2022 - 8:30 AM EDT


### Starlink announces availability in Nunavut

Some jurisdictions have subsidized access to Starlink in remote regions; GN has no such plans

By David Lochead

Marcus Pine just might have access to some of the highest internet speeds in all of Nunavut.

He's one of many people living in communities across the territory who have preordered Starlink satellite internet and received notices this week that the service is now available to them.



A mobile Starlink connection sits on top of a house in Iqaluit. Starlink has given Nunavummiut who pre-order their satellite internet the chance to buy the

FINANCIAL TIMES

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### The corporate feud over satellites that pitted the west against China

How a clash of cultures — and geopolitical interests — sank a German-Chinese joint venture competing in the new space race

Editorial: Cleaner Oils in Taipei JUNE 22 2022

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On the final day of February, a group of European financiers and entrepreneurs gathered on a late-night online meeting to resolve a boardroom dispute.

The Microsoft Teams meeting only lasted 30 minutes. But it was enough time for the board to wrest control of the rights to launch hundreds of low-earth orbit (LEO) satellites from a majority China-owned company to a subsidiary of a US telecoms group.

It was the latest move in a long-running corporate battle between European and Chinese partners in a joint venture, which has huge ramifications for the future of telecommunications in space.

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**EU to launch its own communications satellite network**

Clear text: 11/18/2022

The European Union hopes to have its own communications satellite system up and running by 2027. The importance of the project became clear after Russia's invasion of Ukraine.

Negotiators from the European Parliament and EU member states agreed on Thursday to greenlight the satellite communications internet system IRIS2 (Infrastructure for Resilience, Interconnection and Security by Satellites).

The €6 billion (\$6.2 billion) project is part of an initiative to wean the EU off a bloc-wide reliance on foreign suppliers like China and Russia. EU agencies will contribute €2.4 billion to the project, which lawmakers project will enable secure communication services by 2027. The private sector is expected to

# SPACENEWS

## Europe reaches funding deal for sovereign broadband constellation

By Jason Krawiec — November 18, 2022



TAMPA, Fla. — The European Union reached a provisional agreement Nov. 17 to cover nearly half the 6 billion euro (\$6.2 billion) cost of deploying a secure connectivity constellation by 2027.

The European Parliament and member states agreed on a deal to contribute 2.4 billion euros from 2023-2027 for a sovereign network of satellites called IRIS<sup>2</sup>, or Infrastructure for Resilience, Interconnectivity and Security by Satellite.

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OneWeb Connectivity Needs Global Solutions Our Network About Us Resources Work With Us

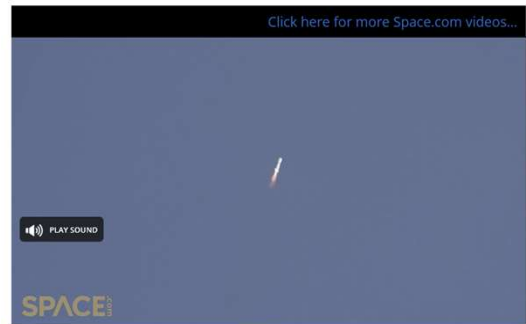
Space is the future

Scroll to explore or skip

## China launches 3 communications test satellites to low Earth orbit (video)

By Andrew Jones, published May 23, 2022

The nation is looking to build its own version of SpaceX's Starlink broadband network.

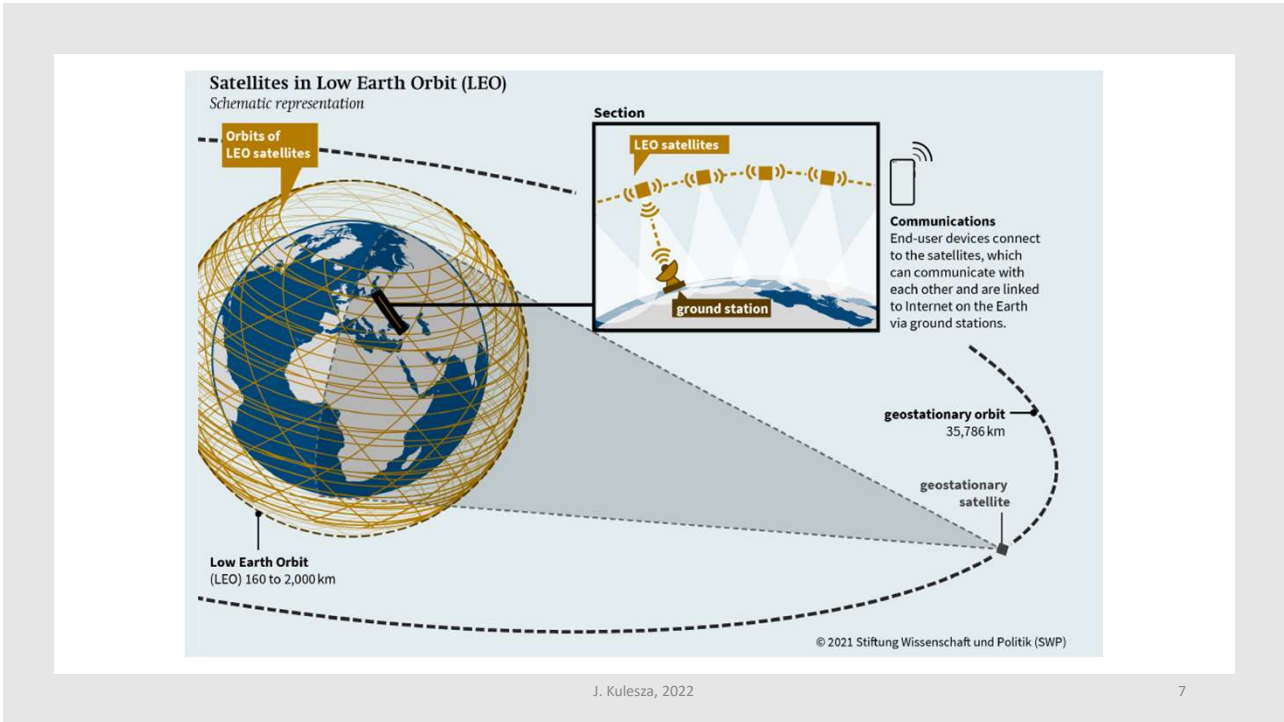


China launched three new test communication satellites to low Earth orbit as the country looks to build its own version of SpaceX's Starlink broadband

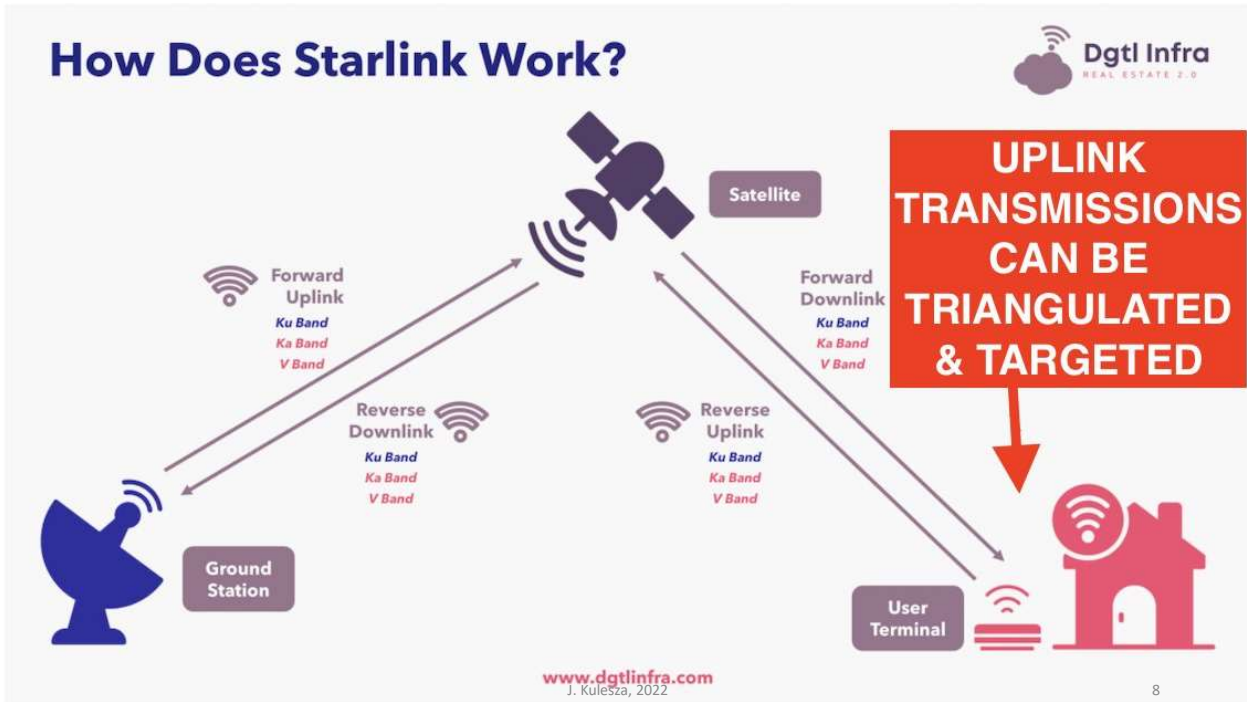
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International Telecommunication Union

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### Welcome to ITU-R

The ITU Radiocommunication Sector (ITU-R) plays a vital role in the global management of the radio-frequency spectrum and satellite orbits - limited natural resources which are increasingly in demand from a large and growing number of services such as fixed, mobile, broadcasting, amateur, space research, emergency telecommunications, meteorology, global positioning systems, environmental monitoring and communication services - that ensure safety of life on land, at sea and in the skies.

Our mission is to ensure the rational, equitable, efficient and economical use of the radio-frequency spectrum by all radiocommunication services, including those using satellite orbits, and to carry out studies and approve Recommendations on radiocommunication matters.

In implementing this mission, ITU-R aims at creating the conditions for harmonized development and efficient operation of existing and new radiocommunication systems, taking due account of all parties concerned.

Our primary objective is to ensure interference-free operations of radiocommunication systems. This is ensured through implementation of the Radio Regulations and Regional Agreements, and the efficient and timely update of these instruments through the processes of the World and Regional Radiocommunication Conferences. Furthermore, radio standardization establishes "Recommendations" intended to assure the necessary performance and quality in operating radiocommunication systems. It also seeks ways and means to conserve spectrum and ensure flexibility for future expansion and new technological developments.

ITU-R manages the detailed coordination and recording procedures for space systems and earth stations. Its main role is to process and publish data and to carry out the examination of frequency assignment notices submitted by administrations for inclusion in the formal coordination procedures or recording in the Master International Frequency Register.

ITU-R also develops and manages space-related assignment or allotment plans and provides mechanisms for the development of new satellite services by locating suitable orbital slots.

ITU-R accommodates the launch of new satellites as quickly and efficiently as possible. It facilitates any new developments and the continuation of satellite services in a safe way. It also squeezes more into the frequency bandwidth, which is a limited, finite resource. Our main concerns centre on bringing high speed satellite networks into service as well as the regulatory steps required for registering satellite network frequency assignments.

Everywhere, at every moment, people need to communicate and to understand each other. Encouraging communication between nations through the harmonious development of the tools made available to them is our ultimate goal.

Mr. Francois Rancy, Director, ITU Radiocommunication Bureau (BR)



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## Promise of the Tunis Agenda

Agenda for the Information Society – Tunis 2005

C. Internet Governance

- 29. We reaffirm** the principles enunciated in the Geneva phase of the WSIS, in December 2003, that the Internet has evolved into a global facility available to the public and its governance should constitute a core issue of the Information Society agenda. The international management of the Internet should be multilateral, transparent and democratic, with the full involvement of governments, the private sector, civil society and international organizations. **It should ensure an equitable distribution of resources, facilitate access for all and ensure a stable and secure functioning of the Internet, taking into account multilingualism.**
- 30. We acknowledge** that the Internet, a central element of the infrastructure of the Information Society, has evolved from a research and academic facility into **a global facility available to the public.**
- 31. We recognize** that Internet governance, carried out according to the Geneva principles, is an essential element **for a people-centred, inclusive, development-oriented and non-discriminatory Information Society.** Furthermore, **we commit** ourselves to the stability and security of the Internet as a global facility and to ensuring the requisite legitimacy of its governance, based on the **full participation of all stakeholders, from both developed and developing countries, within their respective roles and responsibilities.**

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# Internet Governance

*“the joint development and application by*

- *Governments,*
- *the private sector and*
- *civil society,*

*in their respective roles,*

*of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet.”*

Report of the Working Group on Internet Governance (2005)

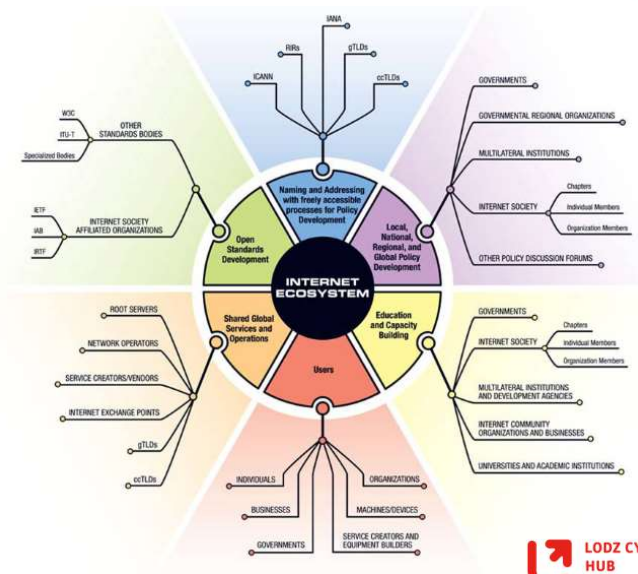
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# MULTISTAKEHOLDER GOVERNANCE



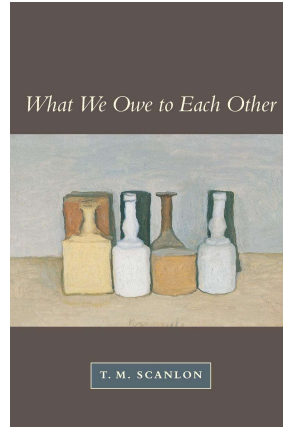
Source: Internet Society  
<https://www.internetsociety.org/resources/doc/2016/internet-governance-why-the-multistakeholder-approach-works/>



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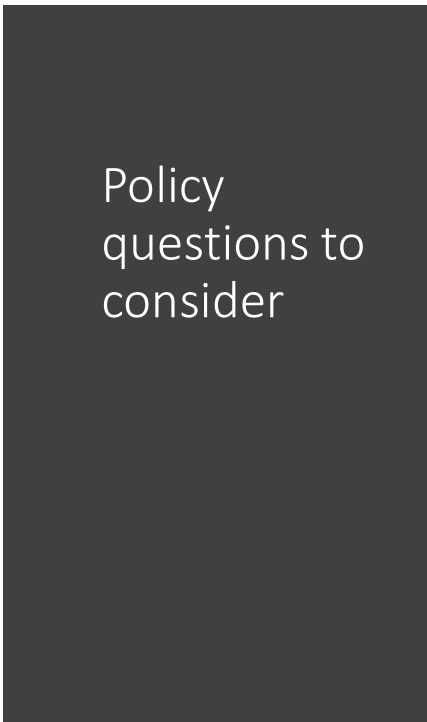


# What DO we owe to each other?



Image source: <https://www.vox.com/future-perfect/2019/9/26/20874217/the-good-place-series-finale-season-4-moral-philosophy/>  
<https://www.amazon.pl/What-We-Owe-Each-Other/>

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- LEO Satellite Constellations and **Sustainable Development Goals**:
  - **Meaningful Connectivity** / Regulatory Limitations and Concerns?
  - **Equitable Access** to Space and Space Resources?
  - **International Telecommunications Law** and Satellite Broadband?
  - Equitable Access Principle in **Internet Governance**
    - Multistakeholder governance
    - **Second-order Internet governance** - lessons learnt from multistakeholderism
    - **Privatized Internet governance?**

- cybersecurity
- supply chain security and critical infrastructure protection (5G relevance?)
- privacy and data protection
- space debris and int. liability

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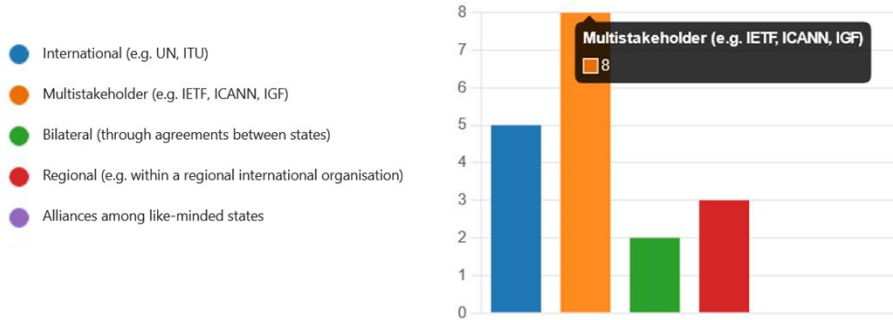
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## Second-order Internet governance - lessons learnt from multistakeholderism

### 3. What system is most appropriate way of engagement to resolve differences?



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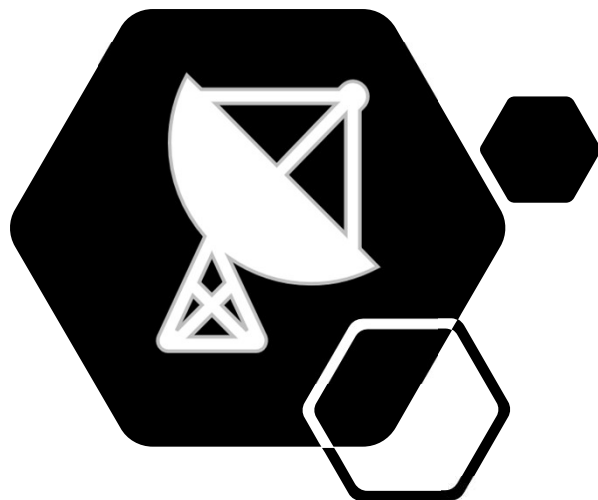
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# Thank you

Joanna Kulesza / University of Lodz

Please send your feedback to  
[LEOsISOCstudy@gmail.com](mailto:LEOsISOCstudy@gmail.com)



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