

8. Pax Silica-Science & Technology

The inclusion of India in the Pax Silica initiative has sparked a significant constitutional and strategic debate in the Rajya Sabha. While the alliance promises to revolutionize India's semiconductor and AI roadmap, critics warn that it could inadvertently usher in a new era of Digital Colonialism, where national sovereignty is traded for technological access.

Background

To understand the tension between global integration and national interest, the following concepts are foundational-

Pax Silica- A US-led strategic framework (established in late 2025) designed to create a "silicon-based peace" by securing the global supply chain for semiconductors, critical minerals, and Artificial Intelligence.

Digital Colonialism- A modern phenomenon where large-scale tech companies or powerful nations exercise control over the digital life (data, infrastructure, and standards) of another country, making the latter technologically dependent and economically subordinate.

Silicon Supply Chain- The entire lifecycle of hardware—from the mining of critical minerals (lithium, cobalt) to the fabrication of chips (foundries) and the deployment of AI software.

Monazite & Thorium- Rare earth resources found in India's coastal sands, essential for high-tech manufacturing and nuclear energy.

The Pax Silica Initiative- Architecture & India's Entry

Pax Silica is more than a trade agreement; it is a "technology shield" meant to reduce dependencies on adversarial nations.

Inaugural Summit- Held in December 2025.

Key Signatories- Australia, Israel, Japan, South Korea, Singapore, UK, Netherlands, and UAE.

India's Participation- India joined in February 2026 during the New Delhi AI Impact Summit.

Primary Objective- To build a secure, innovation-driven supply chain for critical minerals and ensure that "aligned nations" can deploy AI at scale without coercive external pressure.

Pax Silica as a Driver of Digital Colonialism

The concerns raised in the Rajya Sabha focus on four specific areas where India might lose its "Strategic Autonomy"-

Area of Concern	Description of Risk	Potential Impact on India
Standard-Setting	Rules for AI and semiconductors are set by the most advanced members (US, Netherlands).	India may be forced to align domestic laws with foreign frameworks rather than building its own.
Data Control	Global frameworks often demand "free flow of data" across borders.	May undermine the Digital Personal Data Protection Act, 2023 and lead to "Data Outflow."
Infrastructure	Reliance on foreign cloud systems (AWS, Azure) and AI models.	Hinders the growth of "Sovereign AI" and indigenous cloud infrastructure.
Policy Constraints	External influence over digital systems.	Decision-making in sensitive sectors like defense or finance could be influenced by foreign tech partners.

Strategic Significance- Why India Joined

Despite the risks, the Ministry of External Affairs and Ministry of Electronics & IT (MeitY) argue that Pax Silica is a "net positive" for India's self-reliance (Atmanirbharta).

Diversification of Supply Chains

Reducing China Dependency- India can pivot toward secure suppliers like Australia for the critical minerals required for EV batteries and high-end electronics.

Mineral Security- Facilitates the advanced extraction and processing of India's own monazite and thorium resources, which have historically been underutilized.

Technology & Investment Transfer

Partnerships- Access to Dutch (ASML) lithography technology and Japanese precision manufacturing.

Financial Inflow- Encourages top-tier investors from the UAE and Singapore to fund India's semiconductor "fabs" (fabrication plants).

Powering the "AI Stack"

1. Joining the alliance ensures India is not left out of the "strategic stacks"—the layers of software and hardware that will define the next decade of global power.

Detailed Risks- The "Dependence Trap"

Technological Glass Ceiling- Critics argue that while India may get "access" to technology, it might only get the *application* layer, while the *intellectual property (IP)* remains in the West.

Algorithmic Bias- Heavy reliance on foreign-trained AI models might impose external cultural or regulatory biases on the Indian digital ecosystem.

The "Resource Curse"- There is a fear that India might become a supplier of raw materials (minerals) and a consumer of finished products (chips/AI), mirroring 19th-century colonial trade patterns.

The Way Ahead- Calibrated Engagement

The debate highlights that in 2026, "territorial integrity" is no longer enough; a nation must also maintain "Digital Integrity."

Consensus-Based Regulation- India should advocate for a "Multipolar Pax Silica" where developing nations have an equal say in setting technological standards.

Sovereign Data Infrastructure- Investing heavily in local data centres and "Bhashini"-like AI projects to ensure data stays within Indian borders.

Intellectual Property Focus- Ensuring that partnerships with Japan or the Netherlands involve the co-development of IP, not just the assembly of foreign components.

Conclusion

Pax Silica is a double-edged sword. It offers India a seat at the high table of the global AI revolution, but it carries the risk of a "digital lockdown." The goal for Indian policymakers is to ensure that "Silicon Peace" does not lead to "Digital Subjugation."

Source- <https://www.thehindu.com/news/national/us-led-pax-silica-a-step-towards-digital-colonialism-says-congress-mp-in-rajya-sabha/article70775815.ece>