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A New Partnership for the Digital 21st Century: Japan, India and France

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ABSTRACT

Global powers like the United States and China have spared little effort in attempting to shape the digital age in their image. At the same time, other powers like Japan and France, and emerging ones like India aim to play a part in building the global digital ecosystem. These latter three share similar values: democracy, freedom of speech, open access to digital resources, and sovereignty. They all desire to keep the

digital commons intact and not be divided into hermetically sealed political fiefdoms. However, little is being heard from these three countries by way of joint initiatives and norms building. More importantly, they have serious disagreements on issues like data localisation and international digital conventions. This report^a explores existing frameworks for cooperation between India, Japan and France, across a range of high-technology sectors and pressing policy priorities.

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INTRODUCTION

An India-Japan-France partnership on digital infrastructure can transform geographies from the Indo-Pacific to Africa. The Indo-Pacific is the fastest growing region in the world in terms of internet adoption and digital connectivity.¹ Foreshadowing expected economic growth, Southeast Asia's internet economy has tripled in size to \$100 billion in the last few years and is expected to triple again by 2025.² Africa, for its part, has seen a substantial increase in the proportion of its population that uses the internet, from 2.1 percent in 2005 to 24.4 percent in 2018.³ The transformative impact of a digital revolution would bring a sea change in the economic, social and political spheres. While these regions have seen growth in technological innovation, there remain challenges to the widespread adoption of digital technology.

Widening income and gender inequality, high rates of poverty, and inadequate investment levels threaten the future of digital transformation in these regions.⁴ The *2020 Mobile Gender Gap* report found that India has a large gender gap when it comes to internet use.⁵ South Asia, overall, “has the largest mobile gender divide according to GSMA, with women 28 per cent less likely to own a mobile phone and 58 per cent less likely to use mobile internet.”⁶ The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) estimates that around 52 percent of the region is still offline while those parts that do have connectivity often have low penetration rates and low access rates for women (especially in South Asia).⁷ By 2018, only 30 percent of Africa's population had access to the internet.⁸ These regions therefore need both hard

and soft digital infrastructure. Hard infrastructure like telecommunication networks and undersea cables is complemented by soft infrastructure in the form of a well-educated, digitally literate population.⁹

A prospective India-Japan-France partnership could help effect digital transformation for partner countries. India, in particular, requires both ICT and traditional infrastructure alongside large investments in digital literacy and education. With the aid of long-term loans from Japan and France, India can bridge its gap with partner countries. Further, such a partnership can focus on providing financing and technical expertise for infrastructure development and digital education. Each of the three brings expertise to the table: India ran the Pan African e-Network project and set up fibre-optic networks to “facilitate tele-education, tele-medicine and VoIP services,”¹⁰ Japan has invested in digital infrastructure and literacy in Southeast Asia since the 1990s, and the French Agence française de développement (AFD) has managed a number of digital connectivity projects across Africa and South-East Asia.¹¹ An India-Japan-France partnership could also offer developing nations in Africa and the Indo-Pacific a viable alternative to the US-China rivalry for digital supremacy.¹² Japan and India have already laid the groundwork for such cooperation through a partnership between the Japan External Trade Organisation (JETRO) and India's iSPIRT aimed at building digital infrastructure in Africa and Asia.¹³

KEY ISSUES IN DIGITAL PARTNERSHIP

Cybersecurity

All three countries are seeing an increase in cyber crimes like phishing attacks, cyber espionage, and ransomware attacks. Cyber-attacks can steal personal data to affect the operations of e-commerce and finance, as well as confidential and critical data related to national security. There is also the threat of attacks on critical infrastructure like power supply units and ports. As critical infrastructure is increasingly being controlled by digital applications, it increases their vulnerability to attacks, and heightens the impact.¹⁴ On average, there were 80,000 attacks per day in 2018¹⁵ and the average cost of an attack has increased from \$108,000 to \$1.4 billion in 2019, depending on the size of the business.¹⁶ In India, more than 88 percent of cyber-attacks in 2017 were related to financial services.¹⁷

Japan has adopted an official definition of “cybersecurity” and has clarified the roles and responsibilities of various entities by enacting a fundamental law on cybersecurity.¹⁸ It has also

refined policies over the last few years. One of Japan’s cybersecurity strategies has been to engage in global cooperation. Japan has also contributed to the fostering of human resources for cyber security, and using various technologies available for counter-measures against cyber-attacks.¹⁹ It has also initiated multilateral partnerships in the domain, and promoted policy consultations with India, as well as countries of the European Union (EU) and Association of Southeast Asian Nations (ASEAN).

Recognising the challenges they face in cybersecurity, all three have increased their security budgets and are engaging in more partnerships with their respective private sectors. France has been able to mobilise the international community through the *Paris Call for Trust and Security in Cyberspace*^b which highlights the need for a multi-stakeholder approach to the

b The Paris Call for Trust and Security in Cyberspace is a non-binding declaration that has called on states, the private sector, and civil society organisations to work together to promote security in cyberspace, counter disinformation, and address new threats endangering citizens and infrastructure.

promotion of a safe cyberspace, while exploring the benefits of the digital revolution.²⁰ France has formed a cyber-defence operational chain of command (COMCYBER) to ensure protection of networks and integrate digital warfare into military operations. It has reiterated the fact in the United Nations General Assembly that international law applies to the domain of cyberspace as well and the member nations need to abide by the core principles of international humanitarian law.²¹

For its part, India has entered into bilateral partnerships with certain countries, including Japan, in the space of cybersecurity. However, there is a need to not only put in place domestic frameworks but also engage in broader global collaborations. India is not a signatory to the Budapest Convention^c and did not enter the US-initiated Clarifying Lawful Overseas Use of Data (CLOUD) Act^d nor the Paris Call for Trust and Security in Cyberspace.²² India's former National Cyber Security Coordinator, Gulshan Rai has mentioned that the nations who have criticised India for data localisation have themselves indulged in implementing stricter policies using these acts and have promoted data colonisation.²³ India favours data localisation to protect its data resources, as most of the hardware that is used to set up cybersecurity infrastructure are also prone to cyber-attacks.

Privacy Concerns and Protection of Personal Data

Japan and France are among the countries to have already implemented data protection and privacy laws. The French Data Protection Act (derived from the country's General Data Protection Regulation) states that personal data collected will be processed legally and requires prior consent of the user's device to store cookies which the user can withdraw at any time.²⁴ The Japanese law also mentions the requirements of protecting the interests and rights of individual users while promoting proper and effective use of personal information. The Indian data protection bill, meanwhile, briefly talks about the data fiduciaries to abide by the data protection principles and consent-based sharing of data. Though the three countries have similar ideas about data protection, the bigger problem that arises for India is that it is not part of any multilateral platform; therefore, there is yet no consensus in legislation for data protection among the three countries.

c Budapest Convention is an international treaty that aims to address cyber crimes by harmonizing national laws, improving the investigation techniques and cooperation among member nations.

d The CLOUD Act is designed to provide trans-border access to communications data in criminal law enforcement investigations.

“India, Japan and France have yet to create a consensus in legislation for data protection.”

The three countries are also looking at more open softwares which will help in creating a position of strategic autonomy whereby there is clarity that the software does not collect any personal data or becomes a backdoor for spying individual users. A lot of applications have been blocked by the Indian government on the suspicion that they have had unauthorised access to sensitive user data.²⁵

There are more emerging challenges with regards to human rights as more states and companies are using mass surveillance to track their citizens and users without their consent. Upon the initial onslaught of the COVID-19 pandemic, many states began using mass surveillance tools to monitor the movements of their citizens. The French government used the *Stop Covid* app which collected users' data and sent alerts to anyone who was in close proximity to the infected person.²⁶ The Indian government also used the *Arogya Setu* app which had multiple privacy issues including the use of GPS and bluetooth to track the users; there is also an issue on the lifespan of the data collected.²⁷

Content Regulation and Open Internet

The Open Internet (OI) relates to the concept of net neutrality in which information across the World Wide Web (WWW) is equally free and does not depend on the service provider. The EU passed a regulation on open internet allowing the users the right to access and distribute lawful content of their choice through their internet providers. India, Japan and France should be in a position to influence global norms to safeguard democratic values and ensure an open internet. There is room for cooperation in this aspect between the three nations. There is little or no censorship or restriction of internet content in France and Japan (except filtering of child pornography and prohibiting extremist content online). In India, internet censorship is done by the state and the central government by using a DNS filtering and educating service and regulating/blocking content.²⁸ The other problem that India faces at the moment is the increased number of internet shutdowns over the last few years.

There needs to be a system wherein content is moderated and there is no space for fundamentalist ideology and hate. However, the government cannot completely rely on private companies to moderate and take down such content. The three countries can come together to eliminate terrorist content online. France and Japan are already part of multilateral platforms like the Budapest Convention and the Paris Call for Trust and Security in Cyberspace. India should join a multilateral, multi-stakeholder platform as well.

Advanced Technologies

Disruptive technologies like machine learning and AI hold the potential to rewire how economies are run in the 21st century. As the stakes are high, powers like China have announced plans to invest at least \$1.4 trillion in 5G and AI.²⁹ An India-France-Japan partnership in the realm of technology exchange and development will prove crucial for the future competitiveness of these economies. At present, no joint front for technology cooperation exists among the three countries. India and Japan concluded a Digital Partnership agreement in 2018 and formalised cooperation on AI technologies between top research institutes like Japan's AIST and India's IIT Hyderabad, as well as government agencies like Japan's METI and India's NITI Aayog.³⁰ On 5G technology, a Joint Working Group was set up between India and Japan to cooperate and coordinate policy.³¹ For their part, India and France agreed on a roadmap to assess policy related to 5G rollouts as well the risks.³² Meanwhile, India and France have drawn closer on the development of quantum computing systems. The French

Ministry of Economy and Finance and India's Ministry of Electronics and IT have concluded a partnership on quantum computing.³³ Both sides hope to set up an Indo-French Centre of Excellence in Quantum Calculation while the French private ecosystem, including venture funds like Quantonation, are raising funding for these ventures.³⁴ The partnership also aims to encompass 5G technology and open cyberspace, with India and France committing to the mobilisation of around €2 million annually through a partnership between actors in government and academia.³⁵ Outside of France and the US, India has no other clearly articulated cooperation framework with any other country.³⁶ This creates an appropriate space for all three countries to lay down a digital cooperation plan that helps pool resources and technological know-how, and creates strong connections among the scientific community.

Supply Chain Resilience

The outbreak of trade hostilities between the US and China has raised important questions about the need for the global economy to diversify supply chains. The year 2020 saw tensions escalate between countries like India and Australia, on the one hand, and China on the other. For its part, Japan has been occupied with its own trade war with South Korea over high-technology products. As such, the Japan-India-France partnership

has a clear interest in investing in supply chain resilience. India, Japan and Australia have already concluded an agreement on the matter and plan to extend the initiative to include countries in Southeast Asia.³⁷ While the details of the agreement remain unclear, France too, has a clear interest in avoiding overdependency. A prospective partnership between the three countries on this front can augment efforts by the Japanese, Indian and Southeast Asian governments to subsidise companies moving out of China.

Other aspects of building supply chain resilience could involve diversifying sources of semiconductors and rare earth metals. At present, China has the clout in the rare earth metals market, which in turn gives it leverage in political and economic negotiations.³⁸ A prospective supply chain resilience partnership should aim at diversifying sources of global supply. For example, India holds 6 percent of the global reserve of rare earth metals but only provides 2 percent of global supply, given the high costs and damaging environmental impacts of rare metal extraction.³⁹ By investing in more environment-friendly techniques and providing funding for similarly resource-rich nations to develop their supply, a Japan-India-France partnership can help ensure that the global technology industry diversifies sources.

Norms Development

Matters relating to the governance of the digital commons have taken centre stage in global discourse. The Japan-India-France partnership must ensure that shared values like open access, digital sovereignty, and cyber security are protected. The three can push for a joint vision of the international norms on digital policy. France has been active on this front. The Paris Call, launched in 2018, calls for the protection of cyber infrastructure from cyberattacks as well as protections for intellectual property and electoral processes.⁴⁰ Japan has agreed to join the Paris Call, but India has yet to follow suit. France's Information and Democracy Partnership aims to counter online disinformation and provide reliable and verifiable sources of information for citizens in democratic countries.⁴¹ However, while India counts itself a member of this partnership, Japan does not.⁴² France has also launched the Dinard Declaration on cyber norms which envisions the establishment of a Cyber Norms Initiative aimed at "sharing best practices and lessons learned on the implementation of voluntary, non-binding norms of responsible state behavior."⁴³

CONCLUSION

While there are differences between India, Japan and France on issues like data localisation and cyber security declarations, there is agreement in important matters as well. As such, the development of a common minimum program that the three countries can advocate for at international summits and through bilateral negotiations is likely to secure common interests while allowing space for negotiating disagreements.

The future of digital technology is being influenced by the dynamics between China and the US. There is an opportunity for India, Japan and France, along with ASEAN and EU countries to organise themselves to influence the future of the digital revolution. There is scope for collaboration in the sphere of digital technologies in order to challenge Chinese hegemony.

ENDNOTES

- 1 USAID, “USAID’S ROLE IN ADVANCING THE U.S. VISION FOR A FREE AND OPEN INDO-PACIFIC” <https://www.usaid.gov/INDO-PACIFIC-VISION>
- 2 “What’s Driving Asia’s Digital Revolution”, *Sponsored.Bloomberg.Com*. 2021, https://sponsored.bloomberg.com/news/sponsors/axa-investment-managers/whats-driving-asias-digital-evolution/?adv=19141&prx_t=R3QFAlow-AUt8PA.
- 3 “‘Boosting Africa’s Digital Economy’: How Tech Is Transforming Africa”, *ITU News*, 2019, <https://news.itu.int/boosting-africas-digital-economy-how-tech-is-transforming-africa/>.
- 4 Trisha Ray, Sangeet Jain, Anurag Reddy, , , and Arjun Jayakumar. 2021. “The Digital Indo-Pacific: Regional Connectivity And Resilience | ORF”. *ORF*. <https://www.orfonline.org/research/the-digital-indo-pacific-regional-connectivity-and-resilience/>.
- 5 Ray. “The Digital Indo-Pacific”
- 6 Ray. “The Digital Indo-Pacific”
- 7 Ray. “The Digital Indo-Pacific”
- 8 Maher, Hamid, Lisa Ivers, and Amane Dannouni, “The Race For Digital Advantage In Africa”, *Boston Consulting Group*, 2021. <https://www.bcg.com/en-gb/publications/2020/race-digital-advantage-in-africa>.
- 9 Ray. “The Digital Indo-Pacific”
- 10 Ray, Trisha, and Akhil Deo. 2021. “Priorities For A Technology Foreign Policy For India”. *Wita.Org*. <https://www.wita.org/atp-research/tech-foreign-policy-india/>.
- 11 Japan International Cooperation Agency, *Promoting ICTs for Development*, <http://www.itu.int/net/wsis/docs/geneva/misc/jica.pdf>
- 12 Ray. “Priorities For A Technology Foreign Policy For India”
- 13 “India-Japan Digital Partnership”. 2021. *Indembassy-Tokyo.Gov.In*. https://www.indembassy-tokyo.gov.in/india_japan_digital_partnership.html.
- 14 Julian Jang-Jaccard and Surya Nepal. “A survey of emerging threats in cybersecurity” *Journal of computer and system sciences* 80, no. 5 (August 2014), <https://doi.org/10.1016/j.jcss.2014.02.005>
- 15 Purple Sec, 2021 Cyber Security Statistics, <https://purplesec.us/resources/cyber-security-statistics/>
- 16 Loftus Ryan .“What cybersecurity trends should you look out for in 2020?”. <https://www.kaspersky.com/blog/secure-futures-magazine/2020-cybersecurity-predictions/32068/>
- 17 Dr VK Saraswat. Cyber Security.” Niti Aayog. https://niti.gov.in/sites/default/files/2019-07/CyberSecurityConclaveAtVigyanBhavanDelhi_1.pdf.
- 18 Kyoungsik Min and Seung-Woan Chai, “An Analytic Study of Cyber Security Strategies of Japan” 10 no. 10 (2016) <http://dx.doi.org/10.14257/ijisia.2016.10.10.05>

- 19 Ministry of Economy, Trade and Industries, Japan. Cyber Security Measures https://www.meti.go.jp/english/publications/pdf/journal2016_11a.pdf
- 20 France and Cyber security, Ministry for Europe and Foreign Affairs <https://www.diplomatique.gouv.fr/en/french-foreign-policy/security-disarmament-and-non-proliferation/fight-against-organized-criminality/cyber-security/>
- 21 Yann Hwang “other disarmament measures” <https://www.un.org/disarmament/wp-content/uploads/2018/11/statement-by-france-odm.pdf>
- 22 Alexander Seger “India and the Budapest Convention: Why not?”, ORF <https://www.orfonline.org/expert-speak/india-and-the-budapest-convention-why-not/>
- 23 “Nations protesting India’s data localisation plans are implementing stricter policies in their own country” 23 February 2019. <https://economictimes.indiatimes.com/tech/internet/nations-protesting-indias-data-localisation-plans-are-implementing-stricter-policies-in-their-own-country/articleshow/68124806.cms?from=mdr>
- 24 French Data Protection laws and Regulation, 2020. <https://iclg.com/practice-areas/data-protection-laws-and-regulations/france>
- 25 World of Chinese apps and Indian ban over privacy, security. June 2020 . <https://www.indiatoday.in/news-analysis/story/chinese-apps-indian-ban-privacy-security-1695458-2020-06-30>
- 26 Raluca Csernaton, “Coronavirus Tracking Apps: Normalizing Surveillance During States of Emergency”, PRIO, October 5, 2020. <https://blogs.prio.org/2020/10/coronavirus-tracking-apps-normalizing-surveillance-during-states-of-emergency/>
- 27 Meryl Sebastian, “Aarogya Setu’s 6 Major Privacy Issues Explained”, May 12, 2020. https://www.huffpost.com/archive/entry/aarogya-setu-app-privacy-issues_in_5eb26c9fc5b66d3bfcddd82f
- 28 Kushagra Singh, Gurshabad Grover and Varun Bansal. 2020 “How India Censors the Web” <https://cis-india.org/internet-governance/how-india-censors-the-web-websci>
- 29 “China’s Got A New Plan To Overtake The U.S. In Tech”, *Bloomberg.Com*, 2021, <https://www.bloomberg.com/news/articles/2020-05-20/china-has-a-new-1-4-trillion-plan-to-overtake-the-u-s-in-tech>.
- 30 “India-Japan Digital Partnership”, 2021. *Indembassy-Tokyo.Gov.In*. https://www.indembassy-tokyo.gov.in/india_japan_digital_partnership.html.
- 31 “India-Japan Digital Partnership”, 2021. *Indembassy-Tokyo.Gov.In*. https://www.indembassy-tokyo.gov.in/india_japan_digital_partnership.html.
- 32 Chaudhury, Dipanjan, “India, France Create Road Map On 5G Risks, Rollout”, *The Economic Times*, 2021, <https://economictimes.indiatimes.com/news/politics-and-nation/india-france-create-road-map-on-5g-risks-rollout/articleshow/70813155.cms?from=mdr>.
- 33 Chakraborty, Sagnik, “Indo-French Digital Partnership”, *Gateway House*, 2021 <https://www.gatewayhouse.in/digital-partnership/>.
- 34 Chakraborty, “Indo-French Digital Partnership”
- 35 Chakraborty, “Indo-French Digital Partnership”
- 36 Ray. “Priorities For A Technology Foreign Policy For India”

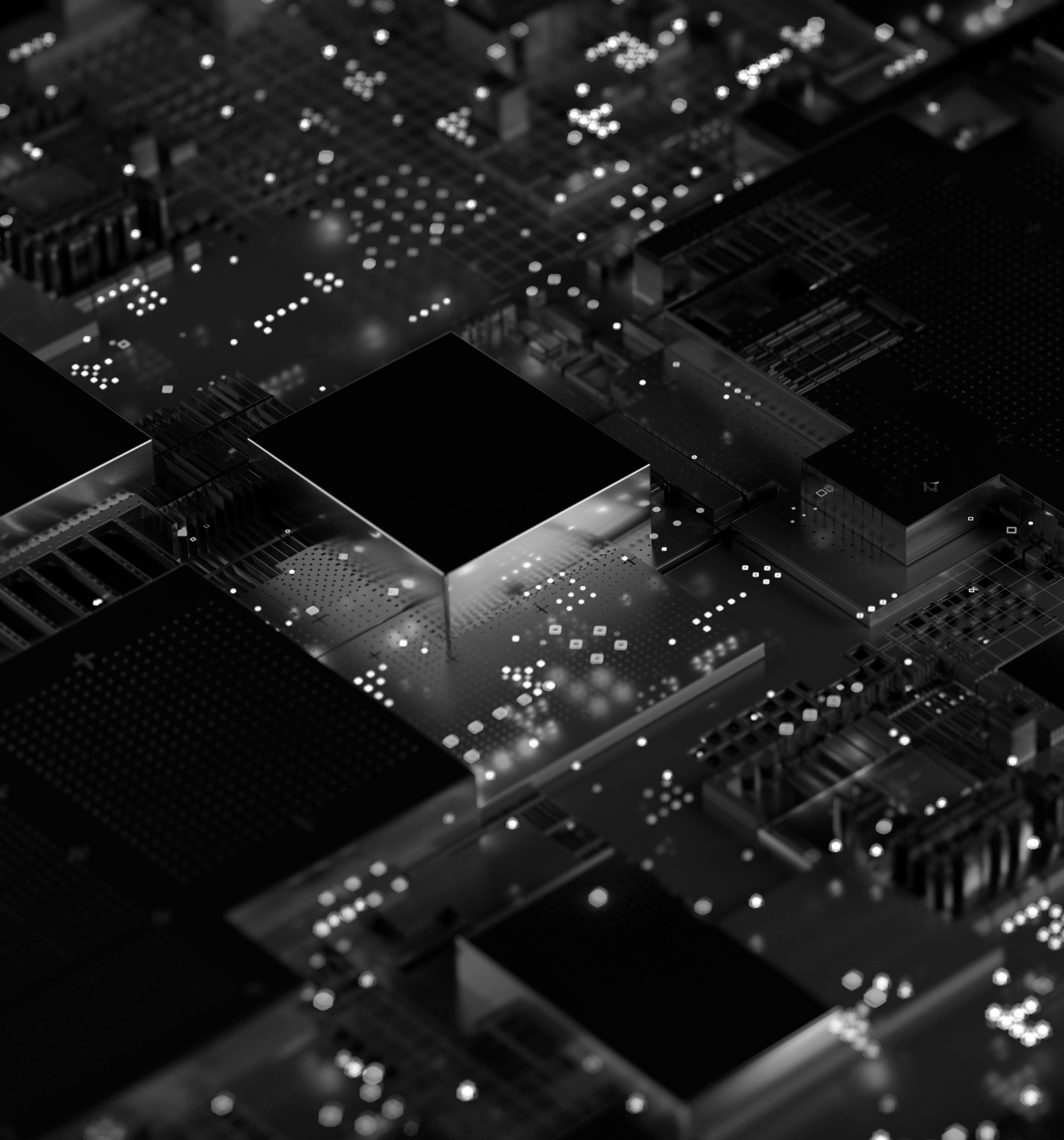
- 37 Sharma, Kiran, “Japan, India And Australia Aim To Steer Supply Chains Around China”, *Nikkei Asia*. 2021, <https://asia.nikkei.com/Economy/Trade/Japan-India-and-Australia-aim-to-steer-supply-chains-around-China>.
- 38 Ray. “The Digital Indo-Pacific”
- 39 Ray. “The Digital Indo-Pacific”
- 40 “The Call And The 9 Principles — Paris Call”, *Pariscall.International*. <https://pariscall.international/en/principles>.
- 41 “The Call And The 9 Principles — Paris Call”, *Pariscall.International*
- 42 “Information and Democracy Partnership”, *France Diplomacy - Ministry For Europe And Foreign Affairs*, 2021, <https://www.diplomatie.gouv.fr/en/french-foreign-policy/united-nations/multilateralism-a-principle-of-action-for-france/alliance-for-multilateralism/>.
- 43 “G7 Dinar Declaration On The Cyber Norm Initiative - EU Cyber Direct”, *EU Cyber Direct*, 2021, https://eucyberdirect.eu/content_knowledge_hu/g7-dinar-declaration-on-the-cyber-norm-initiative/.

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