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Acting on China's Digital Silk Road:

Prospects for EU-India Cooperation

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FEBRUARY 2021

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This peer reviewed policy brief was developed based on consultations with experts from Indian and EU governments and civil society. It is part of the project, titled 'China's Digital Silk Road: Challenges and Opportunities for India and the EU', run collaboratively by the Leiden Asia Centre (LAC), the Netherlands, and the Institute of Peace and Conflict Studies (IPCS), India. The project examines China's expanding role in the global digital domain and its impact on Indian and EU strategic interests. A collaboratively produced background report centred on the Digital Silk Road's strategic implications can be found here.

Contents

Abstract

China's ambitious Digital Silk Road (DSR) poses challenges that go far beyond technological competition. The DSR should serve as a wakeup call to the 'digital emergency' that India and the EU seem to find themselves in. At stake for both actors are how global digital governance values are shaped, and Indian and EU positions in the global digital order. Merely addressing Chinese technology ingress domestically will not suffice. Notwithstanding ongoing India-EU digital cooperation, structural issues need to be more comprehensively addressed. The EU and India should pursue a holistic approach by 1) Outlining an overarching vision for their preferred architecture of the global digital order; 2) Working to better understand each other's broader strategic context and prioritisation; 3) Arriving at definitional consensus on cyber values and norms; and 4) Working to become competitive global suppliers of digital products and services.

Key Policy Takeaways

1

Avoid surprises down the road: Get-go consensus and vision for the global digital order

India and the EU should develop clearer definitional consensus on how they conceptualise global cyber values and norms, and their interpretations *vis-à-vis* the concept of 'human-centric' digital cooperation. This consensus should be situated *within* the context of an overarching vision of their preferred global digital order, irrespective of China's Digital Silk Road (DSR). Clarity on this from the get-go can help overcome policy incompatibilities down the road.

2

De-siloise: A holistic approach to addressing digital opportunities and challenges

China has launched the DSR based on a whole-of-government-and-private-sector approach. Moreover, DSR's implications go well beyond technology. They have deep geopolitical, economic, and security consequences as well. Therefore, in responding to the DSR, India and EU policy communities should create multi-stakeholder platforms for cross-sectoral and interdisciplinary engagement. Closer dialogue and collaboration between research and development (R&D) centres, academia, private sector, and civil society can be fostered in this sphere.

3

Enlarge the aperture: Expand cooperation to include digital backbones

The DSR is shaping the global digital order and the Fourth Industrial Revolution by expeditiously laying infrastructure, i.e., digital backbones, world-wide. Through this, the DSR offers solutions for global developmental gaps. The more extensive a China-oriented global digital backbone becomes, the more Beijing can develop and synergise it with its own global production centres. It is therefore equally important for India and the EU to discuss the joint design, production, and promotion of a collectively developed backbone—perhaps under the upcoming comprehensive connectivity partnership.

Size matters: Collaborate with and in third countries in the global digital order

4 Competition for the global digital order is not taking place only with the EU and India. Some four billion new and novice users across the world will require digital products and services and the benefits of next generation technologies. If China, through the DSR, manages to become their primary supplier, it will take the upper hand in the said order. To prevent monopolisation, India, the EU, and other likeminded actors must work collaboratively to offer sustainable alternatives. Working with each other and third countries to develop sound data protection standards and capabilities is another possibility.

Aim big, start small

5 For enduring digital cooperation, India and the EU must aim for low-hanging fruits as much as tall-order goals. The 'EU-India Strategic Partnership: A Roadmap to 2025' identifies a wide range of collaborative activities. Tangible, outcome-oriented collaborations structured under different 'ease of achieving' levels will help wider goals and enable further policy coordination. Cyber capacity-building activities of staff in public institutions is one such area.

I. Convergences and Divergences of Strategic Interests

This section first examines the broader strategic context within which India-EU digital cooperation is situated. With this context in mind, convergences and divergences in these two actors' strategic interests *apropos* the DSR are analysed.

The Broader Strategic Context

China has demonstrated considerable potential to recalibrate the current world order. This order has partially depended on Western technological primacy. Through the DSR, China is laying the foundation to overtake the EU (and select member states) and further broaden the technological gap with India in the global digital order. In the unfolding Fourth Industrial Revolution, i.e. the digitisation and digitalisation of the world that co-shapes this order, China is categorically contending for leadership. By now, Chinese technological innovations should merit greater attention rather than just its alleged theft of technology. Beijing's determination, methodology, and commitment to technological supremacy should be closely considered. Its strategy has severe repercussions for the EU's faltering technological edge, India's technological aspirations, and, in turn, for both actors' economic and national security.

That said, what has the DSR pursued thus far in Europe and Asia? In Europe, DSR objectives are two-fold:

1) Gain access to knowledge and technologies to 'catch up'. This is done by investing in, acquiring, and/or striking strategic collaborations with (mostly) Western European companies involved in 'high' or 'sensitive' existing and emerging technologies;

2) Gradually become the preferred supplier of digital products and services.[1] Often, this supply revolves around financial technology and digital infrastructure development, including in next generation cellular networks and smart city technologies. Many of these investments take place in central Europe and the (south)eastern periphery, where there is greater need and official receptiveness for such investments.[2]

In Asia, which is economically dissimilar to Europe, DSR intention so far is tilted towards becoming the primary supplier of digital products and services,[3] and with that, creating a more China-centric Asian digital order. China pursues this by using a phased approach: i.e., developing or assisting with developing critical infrastructure and industrial hubs, followed by linkages with digital technologies and digital arteries to China.[4] In time, India may need to contend with a China-centric Asian digital and production order, perhaps even before it has actually taken the chance to *become* a comprehensive technology competitor.

Meanwhile, Europe too seems to find itself in a "digital emergency"[5] and has taken a more reactive problem-solving approach to the DSR, rather than a proactive strategic position in the Fourth Industrial Revolution. The EU is rapidly falling behind China—as it has to the US for much longer—in its digital transition. An illustration is that the US tech giants' combined market capitalisation now exceeds those of all companies listed in Europe.[6] But the issue is not merely about losing technological edge. The preeminent technological power(s) of tomorrow will be able influence economic, societal, political outcomes, and even determine global norms and values.[7] After all, in a digitalised world, factors determining control and influence are steadily moving beyond the physical and into the digital domain.[8]

Indeed, the more sway China garners in the global digital realm through the DSR, the more it could propagate—if so desired—its more state-paternalistic view on the relationship between society, technology, and the state.[9] This prospect affects the very foundation of the Western-led and so-called liberal international order (LIO). While this order has its own flaws, and India indicates a preference for an order that is truly liberal, international, and orderly,[10] New Delhi's values align more closely with the LIO. Consequently, strategic long-term policies that go beyond merely responding to the DSR—a Belt and Road Initiative sub-set—should be of utmost importance to Indian and EU policy communities.

There is a qualitative difference between the circumstances of India and the EU's relations with China. This spans the overall level of development, administrative, economic, and technological capabilities, and influence at international fora. While India's technological capabilities bear immense potential, it still has a long way to go in becoming an international technology leader. Moreover, all of India's immediate neighbours are developing economies with most of them still classified as 'Least Developed Countries' (LDC),[11] and they require heavy investment in critical

(digital) infrastructure. China's inroads in these countries are increasingly pervasive,[12] as are Chinese investments in the digital industry in India.

The DSR's significance to India and South Asia pertains also to development-security-related policy priorities. This is in contrast with the EU's case. Here, the DSR, bar some of the EU's geographic periphery, is of significance mostly in relation to high technology competition.

Where then do EU-India strategic interests meet?

Strategic Interests Apropos the DSR: Convergences and Divergences

In understanding where Indian and EU strategic interests *apropos* the DSR converge and diverge, the initiative's most significant implications need to be understood first:

a. China's ability to create and offer essentially full-fledged Chinese digital backbones comprised *inter alia* of submarine and terrestrial fibre-optic cables, next generation cellular networks, and global satellite navigation systems;
b. China setting technological standards in the unfolding Fourth Industrial Revolution;
c. China shaping cyber governance, norms, and a 'digital experience' with 'Chinese characteristics'.[13]

These three implications are interconnected and mutually synergising; they should therefore be considered as such in policy considerations. Implications 'a' and 'b' translate into potential missed market share and profits for Indian and European companies—at least to the extent that they *can* offer similar digital backbones and actually set standards for emerging technologies. Moreover, these first two implications will bring strategic advantages to the Chinese defence industry, given the PRC's pursuit of civil-military integration in DSR activities as stated policy.[14]

Another mutual concern is the multiplier effect, i.e. the risk of Chinese digital investments in one sector being leveraged to enter or increase influence in other sectors. Examples of this include the Alibaba e-commerce platform's spill-over in local logistics and ePayment systems,[15] and China's AI and weaponised drones-related activity in Serbia.[16] Implication 'c' is a direct potential risk to the vision of a largely open, free, transparent, and human-centric cyber domain. EU-India interests clearly converge in limiting the impact of these three implications.

Thus far, however, DSR impact is relatively more ubiquitous outside India and the EU. Over time and considering the growing number of restrictions that both entities are placing on security and foreign, especially Chinese, technology ingress, that ubiquity may not change. Moreover, through the DSR, China is making value propositions for digital connectivity throughout the globe. Much of the developing world still lacks adequate digital connectivity infrastructure. Local economies benefit from such propositions, which could generate positive business opportunities for the EU and India.[17] Clearly, the DSR also offers solutions for developmental gaps and could be a catalyst for the global digital transition.

While this prospect is encouraging, the DSR is well-placed to take the lead in digital backbone provision and standards-setting among new and novice digital users worldwide, and in developing markets across Asia, Africa, Latin America, and even parts of Europe. These markets account for at least 4 billion users. This potential lead will reverberate across the global digital order and could help China position itself as a critical centre of that order. The internet is a core element of this order and the vision for its future is thus at stake. Regulatory fragmentation of the internet along national borders is already a reality—but will this fragmentation also proliferate to the level of internet infrastructure?[18]

The Chinese version of the internet is characterised by calls to national sovereignty (albeit with 'Chinese characteristics'), censorship, and close surveillance.[19] This is in contrast to a predominantly free and open internet whose main proponent is the US and in particular its big tech firms; or a more human rights-centred internet, whose primary proponent is the EU.[20] India, home to the second largest online population after China and the largest upcoming digital economy, generally supports a more human-centred, multi-stakeholder internet (within a multilateral framework).[21] India conceptualises multilateralism and multi-stakeholderism within the same model. It prefers not just a multi-stakeholder or a multilateral model but a more equitable multilateral model. In this conceptualisation, multi-stakeholderism feeds into multilateralism based on the process' consultative framework. In practice, India's policies figure between the three internet visions. That is an area of slight divergence with the EU and elaborated on in the next subsection.

India and the EU may also find a degree of convergence on data privacy. For instance, the EU's General Data Protection Regulation, which deals with data privacy, came into force in 2016. As of 2017, privacy is a fundamental right in India, and its enforcement mechanisms are evolving.[22] There is serious concern, particularly among Indian observers, over the scale of access to data

that external actors, especially Chinese government agencies, potentially have,[23] given the sheer volume of the country's tech products in use in India—and South Asia for that matter.[24] Partially tied to this is growing distress in both the EU and India over Chinese cyber influence operations and information warfare.[25] Another convergence, albeit circumstantial, is the possibility of a tech-race in which China and the US enlarge the gap with India and the EU, and in which the latter two actors become spectators rather than shapers of the global digital order. This prospect also conflicts with India and the EU's shared commitment to the multilateral system and a multilateral approach to the global commons.

However, there are notable divergences in Indian and EU strategic interests. These are in two broad contexts: geographical and technological. China is contiguous to most regions of Asia, and borders most of India's immediate neighbours. For India, China thus is an immediate neighbour and a geopolitically salient regional reality. India and China share a border spanning over 3,000 km, and the two are locked in border disputes along multiple locations along that border. China's close relationship with Pakistan—with whom India shares a complex and uneasy relationship—gives cause for India to consider two-front scenario[26] concerns in its strategic calculations as well. Moreover, China has critical supply line protection interests in the Indian Ocean and is steadily becoming a resident actor in the Indian Ocean Region's security space.[27] In its immediate maritime neighbourhood, India aspires to be the 'net security provider', and inroads by Beijing—an extra-regional entity—is a cause for serious security concern for New Delhi. Such geographical proximity and pressing security concerns do not apply to the EU with regard to China.

Given these complex bilateral relations, there is a concern in India over the prospect of a world, especially India itself and its immediate neighbourhood, becoming predominantly linked to China and Chinese technologies.[28] There are similar concerns in the EU as well.[29] However, New Delhi's divergence with Brussels is in the fact that Beijing does not have the same level of technological and digital investment-related dominance in the EU. The EU might be comparatively faltering in the digital domain, but it is still a major player and has a very demanding technology market. Moreover, and despite official EU reference to China as a 'systemic rival' since 2019, many European technology businesses see China as a key market and production centre.

Considering these convergences and divergences in interests, what are the prospects for India-EU digital cooperation?

II. Prospects for India-EU Digital Cooperation

This section first identifies challenges to existing EU-India cooperation in the digital domain. Learning from and building on this, we proceed to explore prospects for closer digital cooperation that can address DSR-related concerns.

Challenges to Existing Digital Cooperation

At present, there are not many challenges to closer India-EU digital cooperation. Nor are they insurmountable. However, it is essential to recognise those challenges that do exist. This is especially true if India and the EU are to develop policies to enhance cooperation in this field and respond to the DSR. The primary challenges exist in four areas:

1. Ambiguity on definitional aspects of values and the nature and governance of cyber and digitalisation more generally;
2. Insufficient understanding of one another's broader strategic context and prioritisation;
3. Expectation management regarding the digital relationship; and
4. Residual scepticism regarding each other's intentions and capabilities.

Despite more structured and recurring meetings on cyberspace-related matters since 2015, India and the EU do not yet have clear definitional consensus on cyber values and digitalisation's priority objectives.[30] While there is considerable overlap in orientation, the elements that comprise a human-centric cyber approach are not similar in the Indian and EU conceptualisations. They do not see entirely eye-to-eye on, for instance, certain legal provisions, digital human rights, freedom of expression, and data localisation.[31] In practice, the EU pursues a fairly strict adherence to its predominantly human rights-oriented approach. India pursues a primarily human development and human security-oriented approach tailored to tackle its own societal and economic realities. This informs its pursuit of digital human rights standards. While the Indian and EU outlooks and approaches have some divergences, they are not contradictory. Additionally, while it may not be feasible to achieve EU-India mirror-imaging in how 'values'

translate in the digital domain, identifying and deconstructing these gaps is a worthwhile endeavour.

For realistic policy and implementation frameworks, there is a general need for more conceptual clarity on what a 'human-centred' internet entails, and how priorities within it are structured. For instance, does 'human-centric' first and foremost mean 'human rights'-centric, or 'human development'-centric, or 'human security'-centric, or something else? These are certainly not mutually exclusive areas and in fact must be woven together within the broader vision of a 'human-centric' cyberspace. However, clarity on which of these elements are priority in the EU and Indian perspectives will be essential. Doing so will help identify areas of cooperation that are more easily achievable, even as cooperation in other areas is worked out.

The dissimilarity in perspectives arises from India and the EU facing different security threats and law and order issues on domestic and external planes. This variance has a clear series of drivers. India is arguably the world's most prominent example of an ethnic, religious, linguistic, and cultural kaleidoscope. Ensuring equitable development and socio-political cohesion are a persistent challenge. Externally, there is cross-border terrorism, and an uneasy political relationship with nuclear-armed neighbours China and Pakistan. Most of India's neighbours are LDCs. New Delhi still has a long way to go in synthesising wider development priorities with strategies that will make it a prominent actor in the global digital order. As South Asia's primary power, it must also consider the overall regional geopolitical situation.[32] Indeed, India tends to utilise a domestic and regional prism to assess opportunities and threats, whereas the EU tends to take a more global outlook and normative perspective.

Clearly, New Delhi and Brussels will need to achieve a greater degree of familiarity with each other's strategic contexts, *apropos* and irrespective of the DSR, to better manage expectations.[33] Concrete objectives tied to tangible activities that can be tracked and measured are important. Currently, while the cooperation identifies overarching goals, more needs to be done for such cooperation to translate into practice. This can then venture beyond cyberspace-related cooperation at the government-to-government level, to the production, infrastructure, and knowledge and capacity-building side of digitalisation.

Finally, there is some residual bilateral scepticism about intentions and capabilities.[34] The difference of opinion over temporary, localised internet shutdowns in India is one such example.[35] Another example pertains to the mercantilist leanings of the December 2020 EU-

China Comprehensive Agreement on Investments, which has raised some concern, including among Indian observers. The view that leading EU countries are willing to set values aside in favour of trade is now emerging.[36] An additional factor influencing scepticism about capabilities is the setting of very high goals in EU-India cyber cooperation at the very outset.[37]

How then can the EU and India best proceed?

Prospects for Closer Digital Cooperation

China's rapid technological rise and its ambitious DSR pose challenges that go far beyond technological competition. At stake for the EU and India are cyber values, how they are shaped, and both actors' positions in the global digital order. The DSR should act as a wake-up call to the 'digital emergency' that both actors seem to find themselves in. It is granted that China is making important value propositions for digital connectivity across the globe through the DSR. However, the initiative will also help China gain advantages that will enlarge technological and strategic gaps with India and the EU. In light of this, and for military, commercial, and security motives, it is pivotal that India substantially enhance its technological design, production, and promotion capacities. The EU must preserve existing advantages and also rapidly build capacity in emerging technologies.

The groundwork for more comprehensive India-EU digital/cyberspace cooperation has already begun to be laid and is progressing gradually. Building on the Joint Plans of Action (2005 and 2008), in 2016, both sides endorsed the 'EU-India Agenda for Action 2020', which stipulates a roadmap for this purpose and to strengthen the EU-India Strategic Partnership overall. The trajectory for these goals was outlined in the '2020 EU-India Strategic Partnership: A Roadmap to 2025' document. The roadmaps, agendas, and platforms established to oversee cooperation entail a wide spectrum of activities. For instance, the two sides have already instituted the EU-India Information and Communication Technologies (ICT) dialogue; the EU-India Cyber Dialogue (the latest was held in December 2020); and the Startup Europe India Network, to name a few. Synergies are also being pursued between the EU's 'Digital Single Market' and India's 'Digital India' initiative within the framework of the ICT Dialogue, and there is bilateral interest in cooperating on co-production of new technologies. An India-EU working group for 'comprehensive space collaboration' is also being envisioned, along with exploring opportunities of cooperation on space within the UN framework.

While these are useful platforms, some structural issues remain unaddressed. The EU and India share largely similar political and cyber values. They also have supplementary demographic, economic, and technological advantages. For such a partnership to be more fruitful, India will need to enhance its technological capabilities and economic heft to become a materially equal partner. A focus on balanced market access and trade complementarities, combined with pooling of strengths, could not only facilitate technology co-development but also help create alternatives[38] to Chinese technology production centres.

Building on this symbiotic premise, India and the EU should outline an overarching digital vision for cyberspace and the digital transition at large. This does not need to be a direct answer to the DSR. The vision should be for their preferred architecture of the global digital order and New Delhi and Brussels' respective positions in this order. Such a process will also aid the development of definitional clarity on values and norms *vis-à-vis* digital technologies and the wider cyber space. It is important for strategic pragmatism to prevail over minute details *within* shared values.

After all, DSR implications and their strategic advantages to China reach far beyond technology—well into geopolitics, economics, and security. Therefore, the EU and India should pursue an interdisciplinary and cross-sectoral approach to digital cooperation that brings together a broad range of experts from the public, (organised) private sectors, and civil society. Importantly, these experts should also pay close attention to cooperation on digital backbones. For India and the EU to jointly set standards for (emerging) technologies and compete with China and its DSR, much closer collaboration between their respective research centres, academia, private sector, and civil society is needed. US technology giants have conducted research and development in Bengaluru since the early 2000s. The more the EU and India produce together, the less they will depend on Chinese technology supply chains. Geopolitically, especially, it is critical that Europe and South Asia have access to viable alternatives to Chinese digital products and services.

The global market share of these technologies is also critical in this context. Much of the competition for the global digital order takes place in the various populous and developing markets across the globe, with an estimated 4 billion new and novice digital users. If China manages to become the primary supplier of digital products and services in these markets, it could take the upper hand in the global digital order. This is a scenario that the EU and India could avoid by identifying a collaboration strategy with clear milestones.

India and the EU also have an opportunity to strike a meaningful partnership to address cyberspace concerns and gaps on their own turfs as well as in third countries by offering competitive, transparent, and sustainable alternatives. Co-developing next generation technologies, co-developing and co-deploying standards, such as for space based 6G communication technologies, and collaborating to develop necessary digitally-relevant public infrastructure[39] are some such possibilities.

[1] Richet, Xavier. "Geographical and Strategic Factors in Chinese Foreign Direct Investment in Europe." *Asian Economic Papers*, vol. 18, no. 2, 2019, pp. 102–119.
[2] For instance, as of 2016, China's Midea Group owns Kuka, a German robotics company. In Hungary, the China National Machinery Import and Export Corporation built the Kaposvar 100MW Photovoltaic Power Plant, the country's largest solar power plant; and infrastructure provided by Huawei also plays a key role in Hungary's emergency services, broadband infrastructure, and telecom networks. Germany, despite expressing scepticism, has allowed Huawei to be involved in building 5G infrastructure in the country, albeit with certain restrictions.
[3] With the exception of technology leaders, most notably Japan and South Korea.
[4] For instance, Pakistan, home to the China-Pakistan Economic Corridor, which is a major BRI project, now uses China's BeiDou Satellite Navigation system for both military and civilian applications; and Huawei developed Lahore's 'smart city' initiative.
[5] Well-illustrated in: Bildt, Carl. "Europe's Digital Emergency." *Project Syndicate*, 23 Sept. 2020, www.project-syndicate.org/commentary/europe-digital-economy-5g-ai-falling-behind-by-carl-bildt-2020-09?barrier=accesspaylog. Accessed 12 Jan. 2021.
[6] Ibid.
[7] Okano-Heijmans, Maaike, and Dekker, Brigitte. "Let's Go Digital: EU-India Cooperation in the Digital Age." *Clingendael*, 9 Nov. 2020, www.clingendael.org/sites/default/files/2020-11/Lets-go-Digital_November_2020.pdf. Accessed 12 Jan. 2021.
[8] EU participant, IPCS-LAC webinars with government, academic and think tank experts from India and the EU, held on 10 Dec 2020 via Zoom.
[9] For an elaboration on this please see 'Implication III' in pp.15-18 of Ghiasy, Richard, and Krishnamurthy, Rajeshwari. "China's Digital Silk Road – Strategic Implications for the EU and India." *Institute of Peace and Conflict Studies and LeidenAsiaCentre*, Aug. 2020, leidenasiacentre.nl/wp-content/uploads/2021/01/LAC-IPCS-DSR-Report-Aug-2020.pdf.
[10] For a comparative perspective on India's outlook and engagement with the 'liberal international order', see Chacko, Priya, and Alexander Davis. "The Natural/Neglected Relationship: Liberalism, Identity and India–Australia Relations." *The Pacific Review*, vol. 30, no. 1, 2017, pp. 26–50. Also see: "Remarks by EAM during the 6th Roundtable Meeting of ASEAN-India Network of Think Tanks." *Ministry of External Affairs*, 20 Aug. 2020, mea.gov.in/Speeches-Statements.htm?dtl/32904/Remarks_by_EAM_during_the_6th_Roundtable_Meeting_of_ASEANIndia_Network_of_Think_Tanks_AINTT. Accessed 13 Jan. 2021; and "Address by External Affairs Minister at Third Raisina Dialogue, New Delhi." *Ministry of External Affairs*, 17 Jan. 2018, mea.gov.in/Speeches-Statements.htm?dtl/29362. Accessed 13 Jan. 2021.
[11] "List of Least Developed Countries (as of December 2020) *." *UN Committee for Development Policy*, Dec. 2020, www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/ldc_list.pdf. Accessed 12 Jan. 2021.
[12] On the flip side, this may not necessarily be a negative factor. The fact that the DSR's primary value in Southern Asian economies has much to do with levels and challenges of development also offers opportunities for healthy competition, in which India and the EU could partake.
[13] For an elaboration on this see: Ghiasy, Richard, and Krishnamurthy, Rajeshwari. "China's Digital Silk Road – Strategic Implications for the EU and India." *Institute of Peace and Conflict Studies and LeidenAsiaCentre*, Aug. 2020, leidenasiacentre.nl/wp-content/uploads/2021/01/LAC-IPCS-DSR-Report-Aug-2020.pdf.

[14] Notice of the State Council on Printing and Distributing the "13th Five-Year" National Informatization Plan. 15 Dec. 2016, www.gov.cn/zhengce/content/2016-12/27/content_5153411.htm. Accessed 12 Jan. 2021.
[15] Indian and EU participants, IPCS-LAC webinars with government, academic and think tank experts from India and the EU, held on 10 Dec 2020 via Zoom.
[16] Robinson, Wendy. "The Rise of Chinese AI in the Gulf: A Renewal of China's 'Serbia Model.'" *The Washington Institute*, 13 Oct. 2020, www.washingtoninstitute.org/policy-analysis/rise-chinese-ai-gulf-renewal-chinas-serbia-model. Accessed 17 Jan. 2021.
[17] Ghiasy, Richard, and Krishnamurthy, Rajeshwari. "China's Digital Silk Road – Strategic Implications for the EU and India." *Institute of Peace and Conflict Studies and LeidenAsiaCentre*, Aug. 2020, leidenasiacentre.nl/wp-content/uploads/2021/01/LAC-IPCS-DSR-Report-Aug-2020.pdf.
[18] See also Voelsen, Daniel. "Cracks in the Internet's Foundation." *Stiftung Wissenschaft Und Politik*, 14 Nov. 2019, www.swp-berlin.org/fileadmin/contents/products/research_papers/2019RP14_job_Web.pdf. Accessed 12 Jan. 2021.
[19] "Cybersecurity is holistic and not separate. In the information age, one slight move in cybersecurity can influence the whole edifice of national security, and it is closely connected with security in many other areas," in "Speech at the Work Conference for Cybersecurity and Informatization by Xi Jinping." China Copyright and Media - Edited by Rogier Creemers, 26 Apr. 2016, chinacopyrightandmedia.wordpress.com/2016/04/19/speech-at-the-work-conference-for-cybersecurity-and-informatization/. Accessed 12 Jan. 2021.
[20] See also p. 19 of the EU Commission and High Representative of the Union for foreign affairs and Security Policy 'Joint Communication to the European Parliament and Council — The EU's Cyber Security Strategy for the Digital Decade', Dec. 2020. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=JOIN:2020:18:FIN. Accessed on 16 Jan. 2021.
[21] "Indian Government Declares Support for Multistakeholder Model of Internet Governance at ICANN53." *ICANN*, 22 June 2015, www.icann.org/resources/press-material/release-2015-06-22-en. Accessed 15 Jan. 2021.
[22] For instance, as of January 2021, the Personal Data Protection Bill, which was introduced in 2019, is being deliberated upon by a joint parliamentary committee.
[23] Indian participants, IPCS-LAC webinars with government, academic and think tank experts from India and the EU, held on 10 Dec 2020 via Zoom. For a relevant case, see: Saxena, Kanika. "The 'Panopticon' Problem: India's Video Surveillance Grid Is Still Powered by Chinese Firms." *The Economic Times*, 5 Feb. 2021, economictimes.indiatimes.com/prime/technology-and-startups/the-panopticon-problem-indias-video-surveillance-grid-is-still-powered-by-chinese-firms/primearticleshow/80692653.cms. Accessed 7 Feb. 2021.
[24] For instance, Chinese smartphone manufacturers are currently leading the Indian smartphone and laptop markets. As of November 2020, Chinese companies account for over 64 per cent of the smartphone market share even as the Indian government banned 118 Chinese apps, including some that are default apps in Chinese smartphones (e.g., the Mi browser in Xiaomi phones). See: "India Smartphone Market Share: By Quarter." *Counterpoint Research*, 17 Nov. 2020, www.counterpointresearch.com/india-smartphone-share/#:~:text=The%20market%20share%20of%20Chinese,drove%20overall%20ASP%20for%20Samsung. Accessed 17 Jan. 2021. A host of mobile apps with links to Chinese companies have been also widely used in India, with PUBG Mobile (published partly by Tencent Games), TikTok (developed by Beijing-based ByteDance) being two prime examples. However, the Indian government banned TikTok and a slew of other Chinese apps in the wake of border tensions between the two countries in 2020. Further, Chinese companies have made substantial investments in various Indian companies offering

online services such as shopping, cab aggregation, music, social media, news aggregation, and educational technologies. See: Bhandari, Amit, et al. "Chinese Investments in India." *Gateway House*, Feb. 2020, www.gatewayhouse.in/wpcontent/uploads/2020/03/Chinese-Investments-in-India-Report_2020_Final.pdf. Accessed 17 Jan. 2021.

[25] Thomas, Elise, et al. "Evolution of China's Influence Operations." *Observer Research Foundation*, 26 May 2020, www.orfonline.org/evolution-of-chinas-influence-operations-66810/. Accessed 12 Jan. 2021. Also see, for general distress over attacks, not perse referring to China, pp. 2-4 of the EU Commission and High Representative of the Union for foreign affairs and Security Policy 'Joint Communication to the European Parliament and Council — The EU's Cyber Security Strategy for the Digital Decade', Dec. 2020. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=JOIN:2020:18:FIN. Accessed on 16 Jan. 2021.

[26] The two-front scenario concern in India pertains to the possibility of either China or Pakistan leveraging their strategic relationship with the other to exert military pressure on India in an event of conflict with one of the two, thereby placing a strain on India's ability to respond to threats.

[27] China already has port and naval facilities/port projects running in several Indian Ocean littorals: these include Sri Lanka, Myanmar, Pakistan, Indonesia, Malaysia, Kenya, and Mauritius.

[28] See: "Question No.849 One Belt and One Road Initiative." *Ministry of External Affairs*, 26 June 2019, mea.gov.in/lok-sabha.htm?dtl/31484/QUESTION+NO849+ONE+BELT+AND+ONE+ROAD+INITIATIVE. Accessed 13 Jan. 2021; and Lele, Ajay, and Kritika Roy. "Analysing China's Digital and Space Belt and Road Initiative." *Institute for Defence Studies and Analyses*, Nov. 2019, www.idsa.in/system/files/opaper/china-digital-bri-op55.pdf. Accessed 13 Jan. 2021.

[29] EU participants, IPCS-LAC webinars with government, academic and think tank experts from India and the EU, held on 10 Dec 2020 via Zoom.

[30] For further discussion on the matter of "definitional consensus," see: "Parallax | E8 | IPCS X HSS India-EU Series | the View from New Delhi | Sandeep Chakravorty." Institute of Peace and Conflict Studies, 2020, www.youtube.com/watch?v=32HkfwKsHxc. Accessed 26 Jan. 2021.

[31] D'Ambrogio, Enrico. "EU-India: Cooperation on Digitalisation." *European Parliamentary Research Service*, Oct. 2020, www.europarl.europa.eu/RegData/etudes/ATAG/2020/659275/EPRS_ATA(2020)659275_EN.pdf. Accessed 12 Jan. 2021.

[32] Ebert, Hannes, Saslow, Kate and Wetzling, Thorsten. "Cyber Resilience and Diplomacy in India." *EU Cyber Direct – Digital Dialogue*, July 2020. https://eucyberdirect.eu/wp-content/uploads/2020/07/digitaldialogue-india-final.pdf. Accessed 26 Jan. 2021. P.7.

[33] For example, while India must aspire to and work earnestly towards achieving a much higher standard of human rights, such transformation is unlikely to occur overnight. The EU and Indian outlooks on 'digital human rights', such as on localised and temporary internet shutdowns in India do not align; and any India-EU partnership on cyberspace will need to make allowance for time required for such transformation, as opposed to presenting consensus as a precondition.

[34] Pawlak, Patryk. "EU-India Cooperation on Cyber Issues: Towards Pragmatic Idealism?" *Instituto Affari Internazionali and Gateway House: Indian Council on Global Relations*, Dec. 2016, p. 9, www.gatewayhouse.in/wp-content/uploads/2017/01/iaiwp1636.pdf. Accessed 12 Jan. 2021.

[35] Indian participant, IPCS-LAC webinars with government, academic and think tank experts from India and the EU, held on 10 Dec 2020 via Zoom.

[36] Narlikar, Amrita, and Samir Saran. "The European Union, CAI, and the Abyss." *Observer Research Foundation*, 2 Jan. 2021, www.orfonline.org/expert-speak/the-european-union-cai-and-abyss/. Accessed 15 Jan. 2021.

[37] Indian participant, IPCS-LAC webinars with government, academic and think tank experts from India and the EU, held on 10 Dec 2020 via Zoom.

[38] Babones, Salvatore. "Bengaluru Is the New Shenzhen as Apps Displace Devices." *Foreign Policy*, 12 Jan. 2021, www.foreignpolicy.com/2021/01/12/india-china-technology-apps-internet-economy/. Accessed 17 Jan. 2021.

[39] The Reserve Bank of India's ensuring of interoperability across banks, and National Payments Corporation of India's introduction of the Bharat Interface for Money (BHIM) based on its Unified Payment Interface (UPI) framework are some examples. This aspect assumes relevance given Europe's experience with Alipay setting standards and enabling inter-operability in the digital wallets sector. For an elaboration on the digital wallets experience, see: For an elaboration on this see: Ghiasy, Richard and Krishnamurthy, Rajeshwari. "China's Digital Silk Road: Strategic Implications for the EU and India." *Institute of Peace and Conflict Studies and the Leiden Asia Centre*. Aug 2020. https://leidenasiacentre.nl/en/chinas-digital-silk-road-strategic-implications-for-the-eu-and-india/

The Leiden Asia Centre is an independent research centre affiliated with Leiden University and made possible by a grant from the Vaes Elias Fund. The centre focuses on academic research with direct application to society. All research projects are conducted in close cooperation with a wide variety of partners from Dutch society.

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